

The Bangladeshis in Rome and in London: settlement patterns and housing situation

PhD in Demography XXVI Cycle

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To my family that always makes me feel close even if staying far away.

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List of Acronyms

BSS	Bangladeshi small Sample Survey
CAS	Census Area Statistics
\mathbf{CS}	Centre Sampling technique
GM-I	Global Moran's I
HRP	Household Reference Person
IC	Confidence Interval
ID	Index of Dissimilarity
IPUMS	Integrated Public Use Microdata Series
ISTAT	Istituto Nazionale di Statistica
LISA	Local Indicator of Spatial Association
LM-I	Local Moran's I
LQ	Location Quotient
MAUP	Modifiable Areal Unit Problem
ONS	Office for National Statistics
OR	Odds Ratio
PPR	Persons Per Room
UAE	United Arab Emirates
UK	United Kingdom
US	United States

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Introduction

In Europe, last decades have been characterized by the intensification and globalization of international migration flows, involving not only the traditional immigrant countries of Western Europe, but newly also the countries of Southern Europe, that only recently have been transformed from countries of emigration to countries of immigration. These changes had an impact on the distribution of the population in the cities of Southern Europe, and the arrival of new immigrant groups has been also reflected in the emergence of new patterns of ethnic segregation that result in changes in the spatial arrangements of urban city areas (Malheiros 2002). The variations in the spatial distribution of immigrants may mirror also different housing markets and the role of public housing in the city (Arbaci 2007; Verdugo 2009, 2014).

Housing conditions of immigrants can be then considered as the result of the interrelation between resources and preferences of households, and the availability and accessibility of dwellings (Van Kempen *et al.* 2002). Nevertheless, to some extent, the opportunities of immigrants on the housing markets in 'a new city' are in many cases limited. For instance, immigrants may not have an immediate access to social housing, and consequently they have to depend on the private rental sector, in which, because of insufficient financial resources, they rely on lower quality housing. However, in other cases, immigrants voluntarily choose to live in some area of the city, because of the desired proximity to other co-nationals. All these factors can result in concentrations in specific segments of urban area, and determine thus the spatial concentrations of immigrants (Van Kempen and Özüekren 1998).

In the past, many of international migration flows had been echoes of former colonial relationships, such as for example the migration between the United Kingdom (UK) and Bangladesh. Currently there have been formed also new transnational links by migrations between countries that previously had little to do with one another, such as Italy and Bangladesh (Knights 1998).

Bangladesh (officially People's Republic of Bangladesh), a nation in South Asia, is one of the most impoverished countries in the world (Rorabacher 2010). Since the end of the eighteenth century, Bangladesh has been part of the British Empire, and with the partition of India in 1947 became the Pakistani province of East Bengal (later renamed East Pakistan). This rather artificial division led to the Liberation War from Western Pakistan in 1970 and the formation of an independent state of Bangladesh in 1971. After the 1970s there was hope for possible economic progress, but neither the political nor the economic situations were not favorable for this change, and the situation has been moreover worsened by the ongoing socio-political instability (Chowdhury 2004). Currently, Bangladesh is one of the most densely populated and least developed countries (Bangladesh Bureau Statistics 2013). The economy of Bangladesh is largely agricultural, affected seriously by frequent cyclones and floods, as well as by the inefficiency of state-owned enterprises. Thus, migration has become for Bangladeshis the only option for social and economic mobility (Rahman and Lian 2011). The intensification of migration flows in the late 1970s has caused, that since the 1980s an emigration has been considered as one of the strategies to enrich the state's economy. In fact, the labour migration from Bangladesh and in particular the export of manpower and the subsequent inflow of remittances can be considered as an important pillar of the economy of Bangladesh (Cohen 1995). It is estimated that over 8.6 millions of Bangladeshis are currently living out of their country of origin (IOM 2013).

In this context, can be defined two types of migration destinations from Bangladesh (1) short term migration destinations and (2) long term migration destinations. The former include the area of the Middle East and South Asia with the main destination countries in Saudi Arabia, UAE, Kuwait, Qatar, and Malaysia (Siddiqui 2003). The latter refer to countries such as the US, Canada, Australia or Japan and some countries in Europe (specifically the UK and Italy).

According to the Eurostat's data (2015), in Europe live almost 330 thousand individuals born in Bangladesh. This number is even higher if we consider that for example in the UK there has been an important presence of the second and third generations of Bangladeshi immigrants that are not included in these statistics. The countries with the highest number of persons born in Bangladesh are the UK, Italy, Greece and Spain (EUROSTAT 2015).

Thus, Italy and the UK represent countries with the highest presence of Bangladeshis in Europe, and furthermore, the Bangladeshis living in London and in Rome, represent two largest and complex communities among the European capitals (Knights 1998). Nevertheless, the emergence of the Bangladeshi population in the two countries has a very different origin.

Being the ex-colony of the British Empire, there have been important historical ties between Bangladesh and the United Kingdom. According to Census 2011 there are approximately 450 thousand individuals of Bangladeshi ethnic group¹ living in the United Kingdom, that represent 6% of the total non-White²

¹This number includes all individuals of Bangladeshi ethnic group, thus also those who were born in the UK.

population of the country (ONS 2013). Nearly half of Bangladeshis present in the UK are concentrated in the capital city. Moreover, almost half of the London's Bangladeshis are located in the single borough of Tower Hamlets (ONS 2013).

The first Bangladeshi migrants that settled in London were seamen from Sylhet, lured by the employment opportunities in labour-short Britain, and later abandoned their ships in British ports immediately after the Second World War (Carey and Shukur 1985). Most of them settled in Spitalfields, a dockland area located in East London, and in its neighboring areas.

In the arrival of Bangladeshis to the United Kingdom, the immigrant legislations played an important role. The British Nationality Act of 1948 created the status of the national citizenship of the UK and its colonies, permitting to all Bangladeshis to enter freely on the British territory. Moreover, with the introducing of employment vouchers by the British immigration authorities in the late 1950s and early 1960s, the migration flow from Bangladesh gain momentum through the strong chain of family and kinship structures (Alam 1988). The Bangladeshi migration to London was at that time dominated by single males who arrived to work there, sending remittances back to their extended families in Bangladesh (Peach 2006). Despite the gradual tightening of the British immigration laws starting in 1962 (Commonwealth Immigration Act), by means of earlier Bangladeshi immigrants that have obtained British citizenship, family immigration flows had continued. To circumvent the legal restrictions, variety of legal manipulations and illegal practices have emerged, such as false declarations about family members, forged passports or visas, and remaining after temporary visits have become fairly familiar tricks (Cohen 1995). The peak period of Bangladeshi immigration was in 1980-1984, characterized mainly by the arrival of wives and families. This had an effect also on the housing situation of Bangladeshis, since ongoing family reunion led to the shift from the multi-occupation houses of single men to the acquisition of single-family homes, concentrated especially in social housing (Peach 1998).

Italy, on the other hand, represented an important emigration country until the early 1970s and only in the late 1970s and 1980s this pattern changed dramatically and Italy became an important country of immigration (Natale and Strozza 1997; Pugliese 2002). Unlike the United Kingdom, Italy shares no historical, cultural or linguistic association with Bangladesh (King 1993) and there are no bilateral structures between Bangladesh and Italy (or Rome) that could account for the presence of Bangladeshi migrants (Knights 1996). One of the explanations of

 $^{^2}$ Non-White ethnic groups population accounts for 13% of the total population of the UK (OSN 2013).

Bangladeshi migration to Italy is to recognize it as a 'form of migratory opportunism provoked by the basic push forces back home and by lax entry controls and regularization drives in Italy' (King and Knights 1994).

According to the data of the Italian National Institute of Statistics (ISTAT), there are almost 5 million of foreign citizens residing in Italy, equal to 8% of the total residents (ISTAT 2014). The immigrants from Bangladesh are the 9th largest foreign group in Italy and the third largest group in the Municipality of Rome.

It was only in the late 1980s that the first arrivals of Bangladeshi immigrants were registered in Rome and since then the capital city has become the principal destination of Bangladeshis arriving to Italy. According to the data of the Ministry of Interior, on 31.12.1991 there were little more than five thousand legally present Bangladeshis in Italy of whom four thousand were registered in the Municipality of Rome (Knights 1996). Two decades later, by the end of 2014, these numbers had increased to 115 thousand for Italy and 29 thousand for Rome, representing more than 25% of all regular Bangladeshis registered in the country (ISTAT 2014).

Although under the different conditions, the legislations for immigration played an important role also in the emergence and establishment of permanent Bangladeshi community in Italy (and Rome). Since the mid 1980s Italy has passed different sets of these legislations to control migration flows, and regularize and integrate new immigrants (Blangiardo 2009). The most important was the impact of the Martelli Law in 1990 offering to immigrants to regularize their presence in Italy irrespective of their employment status, that provided a huge impetus of Bangladeshi arrivals to Italy and especially to Rome. In total, more than 200 thousand of immigrants, of which almost four thousand of Bangladeshis were legalized (Barbagli et al. 2004). The 1995 law introduced the possibility of family reunification visas and nearly six thousand of Bangladeshis were regularized (Rahman and Kabir 2012). More than six thousand of Bangladeshis was legalized also in the following reform law of 1998 also known as Turco-Napolitano law (Barbagli et al. 2004). In 2002, Italy passed the immigration law known as the Bossi-Fini Law introducing a quota system, that enable the regularization of more than 700 thousand immigrants in the country and more than 10 thousand of Bangladeshis (Barbagli et al. 2004; Caloff 2006). The next law passed in 2006, with approximately 540 thousand of requests (De Filippo and Strozza 2011). In 2009, new immigration law introduced the possibility to regularize the irregularly present family assistants and caregivers, and finally the law in 2012 concerned the irregularly employed immigrants, but with substantial extra payments for employers. Therefore it is evident, that the size of the Bangladeshi community in Rome has grown substantially over time through the irregular migration, recruitment labour migration and family reunion migration (Rahman and Kabir 2012).

Given an increasing importance and number of Bangladeshis living in Rome, it is useful to learn something more about the overall profile of this community in the Italian capital city, especially when considering that the official statistical data in this respect does not provide very detailed information. For this purpose, finding inspiration and courage in the earlier and successful surveys concerning the immigrant population in Italy (Blangiardo 2011, 2012; Conti and Strozza 2006; De Filippo and Strozza 2012), an original small sample survey³ on the Bangladeshis living in Rome has been realized, representing the important part of this project. The survey sample includes 314 detailed structured face-to-face interviews with citizens of Bangladesh and the questionnaire covered a wide spectrum of Bangladeshis' characteristics, such as socio-demographic characteristics, family situation, housing conditions, education, employment situation, and also several migration and social network characteristics. Among the main objectives of this project are:

- 1) Analyze the overall settlement patterns of the Bangladeshi community in London and in Rome, investigate the similarities between spatial distributions of Bangladeshis in two different contexts and try to understand the factors that may determine these patters.
- 2) Explore the relation between the spatial distribution and the distribution of selected housing characteristics.
- 3) Introduce the profile of the Bangladeshi community in Rome based on the results of the original survey with a specific interest in the housing situation.

Detailed research questions are then discussed in Chapter 1.2.

Finally, the thesis is divided in three sections. The first part studies the spatial patterns of Bangladeshis in London and Rome, and explores the relationship between settlement patterns of Bangladeshi group in London and the distribution of selected housing characteristics. The second presents the results of the abovementioned survey and different aspects of housing conditions of Bangladeshis in Rome are investigated. The third then draws a comparison related to some characteristics of Bangladeshis in London and those living in Rome and investigates the similarity among the areas of original migration in both contexts.

 $^{^{3}}$ Due to relatively small size of the sample it is used the term 'small sample' survey to specify its quantitative restrictions.

1. Theoretical background

The literature on ethnic residential segregation and housing conditions of immigrant population appear to receive continuous scientific attention, but in the most of these cases segregation and housing have been treated more or less separately. In fact, there are not so many studies that closely relate these two issues. In this chapter we review the most important literature on residential segregation and housing conditions and identify the linkages among them. At the same time, we summarize the position of Bangladeshi migrants in the corresponding literature respect to the two topics. Thus, the aim of this chapter is to introduce the theoretical background for this study and to develop a conceptual framework upon which the analysis will be based.

In terms of immigration, London and Rome represent two cities of the countries of Western and Southern Europe with different historical, social and cultural background. As aforementioned, in the last decades, the role of Southern European countries in international migration system has changed, from emigrant to immigrant countries. There have been many authors who explored the shift of international migration flows from Western to Southern European countries, which had an effect on the modification of the European migration map (King 1993, 2002; Carella and Pace 2001). Additionally, these changes had an impact on the distribution of the population in the countries and cities of Southern Europe, although not properly following the Western European pathways.

In a similar way as some authors who claimed that the American segregation models are not valid for the understanding of segregation in the Western European cities (Johnston *et al.* 2002; Van Kempen and Özüekren 1998; Musterd et *al.* 1998; Musterd 2005; Wacquant 2007) some authors defend the originality of Southern European model, as opposed to the Western one (King *et al.* 1997; Baldwin and Edwards 1998; Malheiros 2002; Arbaci 2004, 2007; Musterd and Fullaondo 2008).

One of the differences that has been mentioned by various authors (Musterd and Fullaondo 2008; Arbaci 2007) in this context, is the difference related to the position of welfare state. While in Western European countries welfare states are stronger, offering more support for those who are in need, migrants in particular and it can be expressed also in higher percentages of social housing. In Southern European countries, on the other hand, the welfare state is much weaker and consequently the percentage of social housing smaller. Consequently, these variations might be reflected also in different housing markets and spatial distribution of minority groups in London and Rome.

Additionally, some researchers (King *et al.* 1997; Baldwin and Edwards 1998) have tried to identify factors that are common for the migration processes in Southern Europe and differentiate it them from the immigration in countries of Western Europe. If we summarize them, the major influences on the immigrants' spatial distribution are: (1) the significant presence of irregular migrants; (2) the diversity of immigrants; and (3) the high participation of immigrants in the informal labour market. The majority of immigrants in clandestine occupations performs low-skilled work and deal with employment irregularity. This is reflected also in the character of the housing market, limiting the immigrants' choices related to low salaries and difficulty to paying regular rents (because of the irregular incomes) and also their spatial mobility. Subsequently, they tend to depend on informal housing market. High incidence of non-documented migrants influences also residence due to the inaccessible formal housing market.

With the reference to the existing scientific literature, many of these findings may have an effect on the situation of the Bangladeshi immigrant group in the two studied geographical contexts, in London and in Rome.

1.1 Bangladeshis in the literature

With the respect to the historical context, the literature focused on the Bangladeshi immigration is understandably much wider for London than for Rome. The Bangladeshis have been studied generally in England (e.g. Ballard 1990; Peach 1990, 2005, 2006; Eade *et al.* 1996; Berthoud 2000; Khanum 2001; Dale and Ahmed 2011; Georgiadis and Manning 2011;), but given the significant presence in the capital city, most of the studies have focused on the Bangladeshi community in London (e.g. Carey and Shukur 1985; Peach 1997, 1999; Peloe and Rees 1999; Eade and Garbin 2002; Johnston *et al.* 2002). The majority of researches analyzed the Bangladeshi ethnic group in the comparative analysis together with other groups present in the respective area. Since in this chapter we refer frequently to these authors, we will mention them gradually in the following paragraphs.

On the other hand, the Bangladeshi migration to Rome (and Italy) is more recent, and consequently also the extent of the literature concerning this community is more limited. In the middle of the 1990s, Knights (1996) was one of the first authors (Knights and King 1998; King 2000; King 2002) that carried out an in-depth analysis of the Bangladeshi community in Rome. Knights (1996) explored the structure and dynamics of the Bangladeshi migratory network and the structure of the migratory chain and identified one of the factors that drove immigrants towards Rome: people-trafficking organized by various regional dealers. Moreover, the economic activities and the economic aspect of the "network economy" were included in the analysis.

In recent years, various studies concerning Bangladeshi population in Rome and in Italy have emerged. Mudu (2006) analyzed the residential patterns of immigrant population in Rome, focusing on the areas of Esquilino, Pigneto and Tor Pignattara, and on the establishment of ethnic-based business activities set up mostly by Chinese and Bangladeshis, in the Esquilino city district along the eastbound consular roads leading to Castelli Romani area, Ostiense, Magliana and in Ostia.

Pompeo (2011) analyzed the Bangladeshi community settled in the area of Pigneto and Torpignattara (the former sixth municipality) concentrating on the social and cultural transformation of one area of the Italian capital city.

Rahman and Kabir (2012) studied the implications on the family dynamics of Bangladeshis, channels of migration, role of intermediaries in the migration from Bangladesh to Italy and the economic costs of migration and inflow of remittances.

Della Puppa (2013) presented the case study of Bangladeshi migration using the city Alte Ceccato in Montecchio Maggiore as an example. Della Puppa argues that migration for Bangladesh is a sort of strategy of the middle classes to regain the path of upward mobility blocked by recent historical and political developments in Bangladesh, associated also with radical economic changes. Consequently, the migration to Italy can represent the possibility to improve one's social status (which is almost impossible if staying in Bangladesh).

Rahman *et al.* (2015) studied the Bangladeshi migration to Italy and its developmental implications on migrant households left in Bangladesh, considering the use of remittances as an important factor for family development dynamics. On the grounds of their analysis Rahman *et al.* argue that remittances increase the opportunities of migrant families and contribute to their well-being.

In the scientific literature, the Bangladeshi migrants are known (compared to members of western societies) to attach greater importance to the family, to have larger family networks, and to have more instable household situations (Khanum 2001). In this context, Yeoh *et al.* (2002) mention the existence of 'transnational split' in the case of the South Asian migrants. They are obligated to maintain economic and social relations with their family members left behind in the country of

origin. The informal obligation of maintaining sustained economic and social ties come from the dominance of family in the social and economic affairs in the Bangladeshi society. Basically, it means that migration decision for one of the members of household is a household strategy to accumulate capital for investment in the country of origin. Consequently, individual migrant represents the actor of a complex strategy involving household relations and dependencies, moving for work to another country as an envoy of the extended family that places well-being of the family before the interests of the migrants' individual (Stark 1991). Does not matter if it is a temporary labour migration (e.g. to the Middle East) or its permanent form (e.g. to the UK or Italy). The key priority for migrants is to maintain sustained economic relations with the original families left behind (Ullah 2010).

The marriage is central to the values of Bangladeshi society and the tradition of arranged marriages still prevail, although now they should be better called 'negotiated marriages' (Peach 1999). Up to now marriages are still highly ethnically and religiously homogenous while mixed marriages are very rare (Ballard 1990; Berthoud 2000; Propa 2007). This indicates a strong social closure that is characteristic for this group. In Britain, Berthoud (2000) suggests that cultural values and with that connected family patterns of Bangladeshis are characterized by 'old-fashioned' model. In fact, Bangladeshis show traditional nucleated or extended family structures with high marriage rates, high fertility rates (five or four children were common even if there had been signs of its reduction), little cohabitation and greater size of households (Berthoud 2000). Typical is also low educational qualification and high proportion of women that is economically inactive (Eade *et al.* 1996).

Another feature often associated with the Bangladeshi group is the ethnic cohesion. This means that the ethnic group is more likely to be found living in the company of their co-ethnics (Qadeer and Kumar 2006). Peach (1998) argues that Bangladeshis manifest extraordinary high degrees of segregation and encapsulation, which isolates them not only from the white society but also from every other ethnic group. According to Modood *et al.* (1997) the encapsulation of Bangladeshis consist in living in sort of social bubble, attached to the economy, but distinct from the broader society, spatially concentrated, in-married, very often speaking its language and wearing traditional dresses. The role of the religion is also important. Bangladeshis are dominantly Islamic group, have a strong tradition of *purdah*⁴ and of sheltering and separating women from outside society (Peach 1998).

⁴ Purdah is religious and social practice of female exclusion (Amin 1997).

Finally, in many studies, the concept of 'chain migration' is defined as one of the crucial characteristics of Bangladeshi migration process and considered as one of determinants of high levels of encapsulation (Knights 1996; Gardner 2002; Ghosh 2007; Propa 2007).

MacDonald and MacDonald (1964) defined 'chain migration' as the movement in which prospective migrants learn of opportunities, are provided with transportation, and have initial accommodation and employment arranged by means of primary social relationship with previous migrants. Moreover, the concept of chain migration has been related to being an important aspect of migrant selectivity (Cox 1972).

In this context, the role of migrant networks at all stages of migratory process may differ according to the way in which we observe the migrant. According to Knights (1996), the migrant is no longer viewed as an isolated and displaced individual, but in a system approach, he or she represents an integral part of a longdistance social network composed of relatives, friends and compatriots. In fact, very often it is not an individual, but an extended family, which decide to migrate one of its members. Thus, the costs of migration are then provided collectively and consequently the migrant leaves with a variety of obligations to kith and kin in the country of origin. In this way, the members of the network to a certain extent, determine the decision of who will migrate and thus, they can affect the size, composition and direction of migratory flows. In fact, in many studies have been shown the crucial role of family to determining of migratory strategies (Cesareo 1993; Strozza and Terzera 2006; De Filippo 2007). Essentially, after migrating to a new country, migrants often maintain their pre-existing social, economic and political ties to their home country (Knights 1996; Ghosh 2007). It is recognized in the migration literature that social networks assist people to migrate and settle in the new country (Massey et al. 1998).

Thus, the network plays also an important adaptive role for newcomers by providing a friendly social environment in a new location and thus facilitates adaption of the new migrant. These social connections are established in most cases already when the respondents are still in Bangladesh or they are diffused over long distances through transnational social spaces (Faist 2000). For instance, Ghosh (2007) shows that irrespective to the immigrant class and time of arrival, the majority of Bangladeshis in Toronto obtained the information about their first accommodation before leaving Bangladesh and thus, they came to live in the areas where already lived the earlier immigrants who provided the assistance to these newcomers. Gardner (2002) explains this reciprocal help as related to the characteristic strong social and symbolic ties among Bangladeshis, i.e. if one is from Bangladesh, automatically becomes a 'family member' of another Bangladeshi. They consider it to be their *dharma* (duty) to provide a shelter and other forms of assistance to another Bangladeshi member.

Conceptual framework of chain migration

In this context, as an important conceptual framework for this project it is considered the scheme proposed by Muñiz (2006) related to chain migration network development. We believe that this scheme is well applicable to the study of the Bangladeshi migration, since it brings together important aspects of their migration such as chain migration, migration flows and the spatial distribution in the place of destination.

In the scheme (Figure 1) Muñiz (2006) explains the principle of chain migration by referring to the subsequent migration of nuclear families, relatives, friends or acquaintances that follow the initial move of first migrants from a community. It illustrates that as family or friends emigrate, network information (*red arrows* in Figure 1) flows back to the place of origin and in this way progressively reduces obstacles to migrate for prospective migrants from a community in the place of origin. It is evident that together with increasing network information are intensified also migration flows between the place of origin and destination (*blue arrows* in Figure 1).

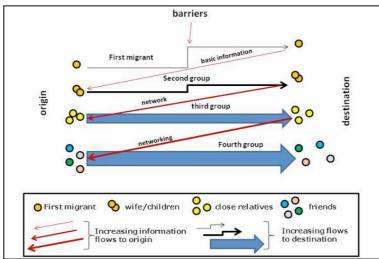


Figure 1 Scheme of Chain Migration, Network Development and Settlement patterns

Source: Adapted from Muñiz (2006)

The aspect that is particularly important for this study is the scheme's illustration of the linkage between settlement patterns in the country of origin and destination and family relations between previous and prospective migrants. For instance, the migration of nuclear family members is associated with a strong spatial proximity in both place of origin and place of destination. Consequently, the original spatial patterns persist even after the emigration. In the case of close relatives there is notable a tendency of higher dispersion in the country of destination respect to the nuclear family members. This means that once arrived in the destination, relatives tend to have slightly different spatial distribution than they had in the place of origin, nevertheless still maintaining the spatial proximity. Unsurprisingly, the highest level of dispersion between the original settlement patterns and those in the destination are observable in the case of not-relatives, i.e. friends and acquaintances. Supporting this conceptual framework, it has been sustained that it is important to investigate the initial settlement process of immigrants, because it influences also the subsequent settlement practices and patterns (Peloe and Rees 1999; Ghosh 2007).

1.2 Segregation studies

There are two main theories related to the residential segregation and the way in which ethnic minority groups integrate into a majority society: (1) the assimilationist, and (2) the pluralistic theory. Each of these two theories implies a different spatial and social outcome.

The assimilationist school describes the disappearance of social and economic markers of the minority over time (Duncan and Lieberson 1959; Lieberson 1963). Its spatial concomitant is the assimilation model of Massey (1985) suggesting that increasing socioeconomic position, longer residence, and higher generational status lead to decreasing residential concentration for specific ethnic group. The spatial manifestation of assimilation model is 'melting pot', predicting a progressive assimilation and convergence of the local and minority populations over time.

The structural pluralist model, on the other hand, predicts economic integration, but at the same time, social distinctiveness or even closure, that is manifested in ongoing high levels of spatial segregation (Gordon 1964, Peach 1997). Peach (1999) distinguishes two variants of pluralism, enforced and voluntary.

The spatial manifestation of enforced pluralism is the 'ghetto'. It is defined as a neighborhood of racial or ethnic concentration that is primarily a result of social exclusion from the side of mainstream society (Peach 2005) and largely associated with poverty and urban degradation. Usually, this term has been related to the African-American model, in which the segregation between blacks and whites is irrespective of socio-economic status and do not show significant decrease over time.

On the contrary, the spatial expression of the voluntary pluralism is the 'ethnic enclave'. An enclave represents both a spatial and institutional phenomenon. The necessary condition for the existence of an enclave is the ethnic concentration in an area and it is formed when people of particular racial, ethnic, religious or economic backgrounds congregate voluntarily to enhance their economic, social, political and cultural development (Wilson and Portes 1980). In the scientific literature, there have been many authors (e.g. Lo and Wang 1997; Logan *et al.* 2002; Ghosh 2007; Qadeer and Kumar 2006) that utilized the concept of 'ethnic enclave' in diverse contexts of the segregation studies.

In terms of urban context, both assimilation and pluralism models link the initial settlement of ethnic minorities to rather high levels of segregation in the central areas of the city. In the view of assimilation model, with an economic development, ethnic groups tend to diffuse from the areas of initial settlement and consequently the levels of segregation decrease (Duncan and Lieberson 1959, Lieberson 1963). In terms of housing, the immigrants first concentrate spatially in older, less-expensive housing close to the centre of the city and, while improving their economic status, they move outwards through increasingly higher-status residential zones, ending up in the residential periphery (Massey 1985). On the contrary, in the pluralistic perspective, ethnic groups would either remain consolidated *in situ* or relocated elsewhere in a consolidated pattern (Peach 1997). In any case, there would be continuing significant levels of segregation. According to Peach (1999) Bangladeshis in London are following a culturally pluralistic model.

Since the 1970s a more complex structural-spatial division of the cities has been developed, associated primarily with economic restructuring, demographic changes and increasingly diverse immigrant flows. On this purpose, Marcuse and Van Kempen (2000) suggest variety of new socio-spatial formations, of which the most relevant are (1) the emergence of gentrified neighborhoods and areas of eventual gentrification near the downtown core, and (2) the development of variety of ethnic enclaves, especially in the suburbs. The increasing gentrification limits affordable housing options in the central-city areas that were used to receive new immigrants and consequently, the newcomers and immigrants originally settled in the central-city may relocate to the suburbs. Therefore, the old associations of assimilation model between immigrants and deprivation no longer holds. As a result, some other concepts have appeared, like 'ethnic community' or 'ethnoburbs'. The term 'ethnic community' was used by Logan *et al.* (2002) to identify residential concentrations of affluent immigrant groups in the case of the suburbs of New York and Los Angeles, while the concept of 'ethnoburb' used by Li (1998) for the instant Chinese suburbanization in Los Angeles can be described as a new model of the contemporary urban ethnic community. Being suburban ethnic clusters of residential areas and business districts in large metropolitan areas, ethnoburbs represent multiethnic communities in which one ethnic minority group has a significant concentration but not necessarily constitute a majority (Li 2009).

In the last decades, there have been many studies that focused on patterns of spatial segregation and concentration of distinct ethnic groups in different European cities. Among the recent ones, e.g. Murdie and Borgegard (1998) for Stockholm; Van Kempen and Van Weesep (1998) for Dutch cities, White (1998) for London; Malheiros (2002) for Lisbon and Rotterdam, Murdie and Gosh (2010) for Toronto; Martori and Apparicio (2011) for Barcelona. Most of these studies provide a description of settlement patterns and many of them capture also the developments in time.

In some of these studies the comparison of settlement patterns between two or more cities has been applied and in the most of them the differences have been measured by traditional indices of segregation (e.g. London and New York: Johnston *et al.* 2002; New York and Los Angeles: Logan *et al.* 2002; Malheiros 2002; several western European cities: Van Kempen 2005). In this context, Özüekren and Van Kempen (1997) suggest that the segregation patterns and processes of segregation may be different for different groups, different cities and different countries; for instance, there have been found big differences between the same groups in different countries, e.g. Turks in The Hague, Vienna and Cologne.

In the segregation literature, Bangladeshi group has been analyzed both separately and together with other South Asian or different groups. From the studies all around the world, Bangladeshi group results as one of the most highly spatially concentrated groups, e.g. in Canada (Owusu 1999; Murdie and Ghosh 2010), in Britain (Gardner 1993; Peach 1990, 1996, 1999; 2006; Peloe and Rees 1999; Johnston *et al.* 2002; Phillips 2006), in Italy (Knights 1996; Knights and King 1998; Natale 2002; Mudu 2006; Natale 2006; Casacchia *et al.* 2012; Broccolini 2014).

Peloe and Rees (1999) describe the community development of Bangladeshis in London as 'pilling up' in its initial settlement location (Tower Hamlets borough), suggesting that it is a result of rapid natural increase together with other characteristics of the Bangladeshi group, particularly the highest levels of unemployment and the lowest household and per capita income.

Explanation of ethnic residential segregation

Previous research has shown, that causes and consequences of segregation are highly dependent on the context in which they are situated. Settlement and segregation patterns, processes and outcomes are shaped by a variety of factors, such as national immigration and integration policies, volumes of immigration, demography, degree of urbanization, housing and labour market structures and also housing, planning and welfare policies (Musterd *et al.* 1998; Musterd *et al.* 2008).

In the scientific literature there have been a variety of explanations of the patterns of residential segregation of ethnic minorities invoking such factors as economic differences, the desire for proximity to the members of the same ethnic group, social distance, and discrimination (Clark 1992, 1993).

Since the 1960s the studies explaining the high levels of segregation among the ethnic minority groups have been divided between those who have seen choices as the main exploratory factor (e.g. Peach 1979; Robinson 1986; Clark and Dieleman 1996; Logan *et al.* 2002; Peach 2005; Mulder 2007) and those who have seen it as the result of racist discrimination (e.g. Rex and More 1967; Brown 1981; in housing markets: Alba and Nee, 1997). While the 'constraint' followers did not take choice into account, the 'choice' followers consider also constraint, seeing choice as operating within it.

In the end of the 1990s Peach (1998) argued that the interpretation of patterns had changed from one in which ethnic minorities were viewed as victims of several constraints (racist discrimination, barriers of housing market, etc.), to one in which they experienced a greater degree of autonomy in the decision where and how to live. Housing patterns might be then understood more as a product of autonomous ethnic culture and choice, moderated by chain migration and different rates of diffusion.

In order to synthesize the choice and constraint approaches, Sarre (1986; Sarre *et al.* 1989) applied the Gidden's structuration theory to the complex issue of ethnic minority housing locations, viewing structures to be seen not only as a constraint, but also as a possibility of goal achievement (e.g. accepting social housing in a particular area because it is located close to friends or relatives). Sarre *et al.* (1989) argued that minority groups might internalize external constraints so they chose only

realizable options. It means that people chose for those areas that are known to them and that are considered more or less attractive, safe, etc.

In this context, two different groups of factors that may explain the ethnic segregation can be distinguished. The first one is represented by combination of individual preferences and characteristics, such as income, willingness to live among compatriots, chain migration, etc. Since the residential choice is largely based on positions and events in the life cycle of the households, the individual and household characteristics are seen as major determinants of housing and residential preferences (Clark and Dieleman 1996).

The second group, on the other hand, is represented by the external force that determines residential segregation upon race, religion, language, or nationality, such as policy outcomes (e.g. social housing) and dynamics of housing market. Many authors highlight that the state plays a significant role in the socio-spatial restructuring of cities (Marcuse and Van Kempen 2002; Verdugo 2009, 2014; Préteceille 2012)

In many studies income has been interpreted as an important determinant of settlement patterns and housing conditions (e.g. Rex and Tomlinson 1979; Schill *et al.* 1998; Van Kempen and Özüekren 1998, 2002). Essentially, the financial resources are closely related to the position on the labour and on the housing market. Those who have relatively good labour-market position are more likely to take a better position also in the housing market, i.e. they have more resources to afford housing of a certain type, quality and price in certain neighborhood (Van Kempen and Özüekren 1998).

Nevertheless, has been shown that even if controlling for socio-economic status, the substantial ethnic residential segregation still remains (Musterd 2005).

On the other hand, Peach (1998) argues that if income would be the most important factor for the explanation of segregation, then the groups would live more mixed. Their strong concentration in different parts of the city indicates that this have to do something with their (ethnic) preferences. There are localities that are settled by specific ethnic groups and this cannot be a coincidence.

In fact, another explanation of ethnic segregation is the simple willingness to live among compatriots (Massey 1985). In many studies of residential behaviour of international migrants in different countries have been shown that migrants tend to move near people from their country of origin on first arrival, and that the presence of family members plays an important role in determining the migrant's location (Knights 1996; Bowes *et al.* 1997, Owusu 1999, Murdie 2002; Gosh 2007). For instance, migrating for marriage, the residential location of the partner is in most cases decisive.

In the literature concerning the residential segregation, behavioral and ethniccultural approaches represent the traditional attitude to this issue. Explanations that explicitly include the individual preferences in housing and residential mobility are explained by the behavioral approach. According to this approach, the changes in the household's size and its preferred type of dwelling are related to different stages in the household formation cycle (Brown and More 1970). In this way, the residential preferences of households can be then directly linked to positions and events in the family life cycle (starting a family, contraction of family, etc.) Household characteristics are major determinants of housing and locational preferences. Age of the head of household and the household composition are two essential characteristics to evaluate the housing preferences (Clark and Dieleman 1996; Clark et al. 1997). Various studies focused also on the relation between the spatial distribution of different types of households, taking into consideration the life course stages and with them connected residential and housing preferences (Bailey and Cooke 1998; Sabater and Finney 2010). Sabater and Finney (2010) analyzed the ethnic segregation across different age cohorts, finding that the dynamics of ethnic residential desegregation are age differentiated migration - young adult urbanization and family/older adult suburbanization. It is important to underline, that the behavioral approach does not focus on the behaviour of ethnic minority members.

On the other hand, ethnic-cultural approach, an application of behavioral approach, suggests that housing conditions and residential patterns differ between groups with the differences attributable to their cultural background, and also in this approach, the element of 'choice' is considered as a crucial aspect. For instance, Clark (1992) states that Whites and Asians have stronger preferences for living in neighborhoods populated by their own race and in this way it may be explained their different settlement patterns. In fact, the role of cultural traditions on the housing choices is necessary to be taken into consideration when evaluating social and economic circumstances of different ethnic groups. Ethnic cultural values strongly influence age of marriage, family size, household structure and female independence (Ballard 1990; Modood 1997).

Some authors (Arbaci 2002; Mustard and Fullaondo 2008) have come with different explanatory factor, and that is the role of the Welfare State, sustaining that it is not ethnic concentration per se that implies worse life conditions or higher social exclusion. Mustard and Fullaondo (2008) show it on the example of Amsterdam and Barcelona. While in Amsterdam, although the immigrants show higher levels of segregation most of them live in good quality social housing with affordable rent. In Barcelona, on the other hand, the levels of segregation are almost the same, but migrants rely on the free housing market, since the Welfare State is much weaker, and the majority is forced to enter lodging and informal housing.

Outstandingly different explanation of ethnic segregation has been proposed by Ley (2001) linking the ethnic segregation to the phenomenon called 'white flight'. In this way the segregation is to be seen as a consequence of the local population's moving out from the areas with higher presence of ethnic group members (e.g. under the presence of ethnoburbs).

The explanations of segregation and concentration usually overlap with the explanatory factors of housing choice. Van Kempen and Özüekren (1998) argue that in most cases the same types of housing are located in the same areas and it is rather rare that city areas are characterized by a complete mixture of housing types, in terms of age, price, size and tenure. In fact, the availability of certain types of housing (e.g. housing size or existence of social rented sector) in the area can explain different spatial patterns (Van Kempen 2005).

Explanation of Bangladeshi high levels of segregation

As aforementioned, in many countries the Bangladeshi group represents one of the most geographically segregated and socially encapsulated ethnic minority groups.

In the context of the residential segregation theories, in many studies Bangladeshis are considered to follow rather pluralistic than assimilatory model, i.e. even if staying in the new country, they continue to maintain their traditional, social and cultural practices (Peach 2006).

There have been many attempts to explain the striking geographical patterns that are typical for the Bangladeshis living outside of the country of origin. One of the most frequent explanations is the social closure and to that related the willingness to live close to other members of the community (Ghosh 2007). It means that the primary relationships of Bangladeshis are mainly with their compatriots rather than outside of the group. The effective social closure can be seen also in the characteristics of Bangladeshi migrants' families, i.e. in persisting traditional nucleated or extended household structures with high marriage rates, high fertility rates, high homogeneity in terms of marriage patterns and subsequently also larger size of households (Eade *et al.* 1996; Gardner 2002). Together with the strong preferences for living in Bangladeshi neighborhoods all these features may be a possible explanation of the high levels of segregation and concentration (Clark 1992; Peach 1998, 1999). Balakrishnan (2001) showed that Bangladeshi immigrants in Canadian cities preferred to settle in segregated neighborhoods despite the ability to afford housing in 'better' neighborhoods dominated by the majority population.

No less important is the role of the religion and the residues of the original village tradition⁵ that also may produce a higher degree of closure for them respect to other groups (Moodod *et al.* 1997). In this context, Arbaci (2004, 2007) argues that some ethnic groups, especially those with particular religious bonds, tend to aggregate spatially. To the social closure is related also the strong community-based economy (Knights 1996; Burgers and Bolt 1997).

The concept of chain migration is considered by many authors as one of the determinants on the initial settlement patterns of Bangladeshis. Throughout the networks they move near people from their country of origin on the first arrival and consequently the succeeding residential locations and housing trajectories are affected (Ghosh 2007; Knights 1996; Murdie 2002; Propa 2007; Murdie and Gosh 2010). In London, Peach (1998) assumes that the inertia of chain migration caused that in particular localities Bangladeshis have become the characteristic symbolic group (Spitalfields or Tower Hamlets). Similarly, Gardner (2002) defines the Bangladeshis in East London as largely homogeneous and originated predominantly from the single district of Sylhet.

The discriminatory housing policies have played the role in the spatial distribution of the Bangladeshi community in East London, especially in the 1980s. The gentrification and the expansion of the City of London led to more and more restrictions in the housing opportunities for Bangladeshis (Eade and Garbin 2002) affecting the diffusion and direction of areas of their settlement.

Advantages and disadvantages of residential segregation

In the literature, there has been an important debate about the advantages and disadvantages of segregation of ethnic minority groups. On one side, the spatial concentration of an immigrant group from the same ethnic background may improve communication among the community members and encourage the development of ethnic-based businesses and institutions. On the other side, residential segregation

 $^{^{5}}$ Village society, as described by Carey e Shukur (1985), was characterized by rigid adherence to traditional Muslim norms and values and the social control was maintained by a close-knit community. Wealth was transmitted primarily through the male members of the family, although a dowry system functions as well.

may reduce opportunities for structural integration, particularly concerning areas of language, education and employment (Ballard 1990).

Since the 1920s, the era of origin of the first studies of urban environments, the hypothesis of a strong relationship between social process and spatial pattern has been utilized in several studies (Park 1926; Duncan and Lieberson 1959; Massey 1985). According to this hypothesis, highly segregated groups are unassimilated while assimilation is correlated with a high degree of residential diffusion.

Massey (1985) argues that the self-segregated settlement, i.e. the willingness to live among others of the same origin, tends to result in lower-quality housing for immigrants, because the neighborhoods to which they are relegated are usually older and have been vacated by several groups progressing through the assimilation process (Massey 1985).

Some authors (e.g. Malheiros 2002; Arbaci 2007) have sustained that areas of the immigrants' clusters are in most cases areas with relatively high levels of social and housing deprivation, identifying ethnic residential segregation as an expression of social exclusion.

On the other hand, there have been studies that called attention to its positive effects, particularly the development of social contacts that is associated with emergence and preservation of a culture (Van Kempen and Özüekren 1998). The positive aspects are also related to the fact, that the choice to congregate in the areas of the same ethnic group clusters may facilitate intra-community interactions, the use of community facilities (e.g. churches, mosques, shops, etc.) and frequently mentioned is also the positive influence of segregation on labour market outcomes (Burgers and Bolt 1997; Cutler and Glaeser 1997; Damm 2009).

In this context, Malheiros (2002) argues that the socio-spatial segregation is not necessary negative, showing it on the example of English cluster in Lisbon or the Japanese cluster in London or Brussels. According to him, the problem are not in the existence of clusters but in the spatial coexistence of poor people, poverty, unemployment, high crime rates, lack of economic dynamics and neighborhood cohesion, social tension and negative local images.

Settlement patterns and intra-group differences

Various studies of intra-group differences in settlement patterns have shown that these differences are considerably associated with the immigrants' characteristics (e.g. Moddares 1992; Lo and Wang 1997; Malheiros 2002; Gosh 2007; Li and Wu 2008).

Lo and Wang (1997) take into consideration an eventual intra-immigrant group differences in settlement patterns of Chinese in Toronto.

Ghosh (2007) highlights importance of intra-immigrant group settlement differences, analyzing how diverse transnational ties affect the neighborhood choice and the type, tenure and quality of housing on the first arrival of Bangladeshis and Indian-Bengalis in Toronto.

Furthermore, a variety of studies focused on tenure-based residential segregation were employed, in most cases in relation to social stratification (e.g. according to income, educational levels) (Malheiros 2002; Arbaci 2008; Li and Wu 2008).

1.3 Studies on housing conditions

Given the scientific literature, there is evident relation between housing conditions and spatial structure of the city, e.g. in cities with a clear mixture of housing types within certain neighborhoods the chance for segregation is much less (e.g. in Netherlands) (Van Kempen 2002). In fact, in different spatial contexts the importance of explaining housing factors may be different: a lack of social rented housing in one city, and the location and accessibility of social housing could be the principal explaining in another one. Wouters and Peters (2001) also suggest that there is a relation between settlement patterns and the distribution of housing characteristics. Therefore, for better understanding of patterns of spatial concentration and segregation it is necessary to know also housing conditions in the analyzed cities. Furthermore, housing conditions play a central role in determining the social and economic well being of families and households (Schill *et al.* 1998) and establish undoubtedly one of the most important indicators of living conditions of immigrants (Reyneri 2007).

In the scientific literature have been studied many aspects of housing conditions and different measures of housing conditions have been applied (Myers *et al.* 1996; Özüekren and Van Kempen 2003; Van Kempen 2005; Ghosh 2007). These indicators can be divided in two groups: (1) physical and economic characteristics of housing stock (tenure type, accommodation type, number of rooms and bedrooms, age of buildings, presence of physical defects, the costs of housing stock, etc.); (2) characteristics that measure household's fit to their housing units, e.g. level of overcrowding or the level of affordability.

Overall, studies of housing conditions of minority groups have shown similar results in different countries and summing up, the immigrants live in worse housing conditions that the natives do (Kesteloot *et al.* 1997, Van Kempen 2005). Nevertheless, Schill *et al.* (1998) suggest that the housing conditions are not determined by the immigrants' status by itself, but by the race and ethnicity. Therefore, this indicates that among diverse ethnic groups there can be found the differences in terms of housing conditions.

In the literature, worse housing conditions of ethnic minority groups are usually related to the following aspects: social networks, strategy to save on living expenses and demographic composition of immigrant groups.

Firstly, immigrants that arrive in the destination country for the first time with the help of social networks usually tend to live initially with friends and relatives, as they search for their own homes (Murdie 2002; Propa 2007). Consequently, the places become more crowded sometime for short periods, but often also for several months or years.

Secondly, it is frequent that living in worse housing conditions represents sort of strategy of immigrants that prefer to save on living expenses and instead of that send remittances back home or fasten their socioeconomic mobility (Schill *et al* 1998).

Finally, another explanation has been found in the imbalances in the sex ratio of immigrants (Ghosh 2007). It has been shown that if the specific immigrant group has a higher proportion of men than women in the place of destination, men tend to live together simply because the presence of less women which clearly limits the potential for forming nuclear households. It is likely that groups of men are either residing with each other or in the homes of friends and relatives who were already there.

Additionally, it is important to take into account that the norms influencing household size, household composition or the obligations toward family and friends may be culturally contingent (Myers *et al.* 1996). The different cultural backgrounds and expectations can give immigrants a higher tolerance for housing conditions that native would view as problematic.

Given the literature on housing conditions, relevant indicators for this study are (1) crowding, (2) tenure, (3) affordability, and (4) satisfaction. These aspects are widely used to describe the housing phenomenon. In general, housing conditions are perceived as the result of the interrelation between resources and preferences of households, and the availability and accessibility of dwellings (Özüekren and Van Kempen 2003).

Tenure type

Housing tenure indicates whether householders own or rent their housing units (often social and private rent is distinguished), being not simply an outcome of the individual and household preferences or different life stages, but it is considered also an important source of social inequality (Kurz and Blossfeld 2004).

In the scientific literature it has been well documented that immigrants are less likely to be homeowners that their native-born counterparts (e.g. Alba and Logan 1992; Krivo 1995; Schill *et al.* 1998; Van Kempen 2005) and if being owners, the immigrants pay a greater share of their income toward housing costs than the local population (McArdle and Mikelson 1994). However, the dissimilarities are present among the singular immigrant groups, e.g. South Asian groups in London differ significantly in terms of type of tenure they occupy. While Indians and Pakistani are overwhelmingly owners-occupiers, Bangladeshi population is highly present in social rental housing (Peach 1998).

Additionally, also the availability of certain tenure types can explain different spatial patterns (Kesteloot and Cortie 1998; Van Kempen and Özüekren 1998). Often it can be associated with the position of the Welfare State (Musterd and Fullaondo 2008; Arbaci 2007). For instance, Bangladeshis' high presence in social housing in Britain is often connected with admittedly depressed occupational structure, but also with the tendentious large families and very low participation rates (Peach 1999).

Crowding

Crowding is a highly complex problem involving household structure, racial and ethnic diversity, housing availability and consumer preferences. A principal indicator of crowding most frequently used is the number of persons per room. It expresses a normative judgement about the degree of crowding showed by the measure and applies a standard by which society declares crowding beyond a certain threshold unacceptable (Myers *et al.* 1996). Nowadays, in the United States one person is used as a threshold to indicate overcrowded households (Myers and Lee 1996), Eurostat uses its own definition⁶ of overcrowded households. In Italy, ISTAT evaluates crowded household by applying crowding index with respect to square meter (referring to household according to different characteristics, e.g. number of

⁶ According to Eurostat (2014), a person's living conditions are considered as overcrowded if the household does not have at its disposal a minimum number of rooms equal to: one room for the household; one room per couple in the household; one room for each single person aged 18 or more; one room per pair of single people of the same gender between 12 and 17 years of age; one room for each single person between 12 and 17 years of age and not included in the previous category; and one room per pair of children under 12 years of age.

components, tenure type, etc.) (ISTAT 2014). In the UK statistics, except the number of persons per room, it is used the concept of occupancy rating (for rooms or for bedrooms present in household) based on the age of household members and their relationships to each other (ONS 2014).

In summary, there has been large variability of definitions of overcrowding and at the same time there has been identified many factors that explained the variation in levels of residential overcrowding between local and foreign populations (ethnic and racial groups). Among these, most frequently are mentioned: restrictions on housing supply, housing affordability, low incomes, household size and immigrant concentrations (Myers *et al.* 1996).

In most of the housing studies, immigrants result to be more likely to live in overcrowded conditions respect to the native-born (Choi 1993; Myers *et al.* 1993; Myers *et al.* 1996; Friedrichs 1998; Schill *et al.* 1998; Van Kempen 2005) even if controlling for socio-economic and demographic characteristics (Krivo 1995). However, there can be found differences within the immigrant population related to crowding levels, e.g. according to the housing tenure. It has been found, that the problem of overcrowding is greater for immigrant renters than for immigrant owners (Myers *et al.* 1996).

As mentioned previously, different factors have been used to explain the prevalence of crowding for immigrants, such as their preference to live with members of their extended family or nonrelatives to pool their resources (Murdie 1995; Schill *et al.* 1998).

The duration of residence might seem to have an impact on crowding of immigrants. Basavarajappa (1998) showed that the lower is the average duration of residence of an immigrant group the higher is the proportion of living in more numerous households. But the study of Myers and Lee (1996) in which they considered, among others, both duration of residence and country of origin, indicates that the influence of cultural preferences on living arrangements is much more important than does the length of stay.

In various studies, South Asian ethnic groups, especially Bangladeshis are described as one of the minority groups with the highest incidence of overcrowding (Choi 1993; Myers *et al.* 1993; Myers *et al.* 1996; Peach 1998, 2006). Peach (2006) explains the high crowding rates of Bangladeshis as a consequence of the combination of the earlier age at marriage, the larger family size and relatively small houses. Also the frequently present economic inactivity of Bangladeshi women results in fewer

breadwinners per household and consequently in limited financial resources for housing.

Residential satisfaction

Residential satisfaction is in the literature recognized as an important component of individual's general quality of life. For most people, housing is the largest consumption item in their lifetime, and home is the setting where one finds refuge, rest and satisfaction (Adams 1984).

Additionally, satisfaction with one's residential situation indicates the absence of complaints and a high degree of agreement between actual and desired situations (Lu 1999). On the other hand, incongruence between their actual housing and needed conditions may lead to dissatisfaction. Important is the role of life cycles and its changes may generate different space requirements, considered the most important aspects of the needs (Rossi 1955).

Based on Foote, *et al.* (1960) residential satisfaction can be classified in housing, neighborhood and other satisfaction. Since then, housing and neighborhood satisfaction of immigrants have been analyzed in several studies (Lakey 1997; Murdie 2002; Dekker *et al.* 2011; Li 2012). It has been shown that immigrants are more likely to be satisfied with their neighborhood than the local population (Lakey 1997; Murdie 2002; Li 2012). For instance, Lakey (1997) studied the neighborhood and housing satisfaction of diverse ethnic groups and although if given similar areas and housing and similar age profiles, all ethnic minorities were more satisfied with their local areas that were the white population; Bangladeshis were most satisfied of all of them.

The literature indicates that homeowners tend to be more satisfied with their neighborhoods (Galster and Hesser 1981; Baba and Austin 1989; Shaw 1994; Rohe and Stewart 1996). Also other characteristics, such as education, age or life cycle stages are significantly related to housing satisfaction (Galster and Hesser 1981; Ha and Weber 1991). In this context, Friedman and Rosenbaum (2004) have found that it is not an immigrant status of the residents, but their socioeconomic status that determines the housing outcomes of immigrants. Additionally, neighborhood social characteristics are significant factors in determining residential satisfaction in certain neighborhoods (Foote et al. 1960) and housing satisfaction are found to be positively related to neighborhood satisfaction (Ha and Weber 1991).

Housing affordability

The acquisition of an appropriate house in a comfortable neighborhood is particularly important in defining immigrant integration (Ray 1998). In the literature the affordability is used as a measure of housing problems, but not always with the same meaning, e.g. the description of housing expenditures, definitions, prediction of the ability to pay the rent or mortgage, etc. (Hulchanski 1995). However, for renters the affordability measure is the most used in terms of the relation between the monthly costs and the monthly income of the household, using the standard of 30 percent of the household income for rent as a threshold for an affordable housing (Schill *et al.* 1998; Murdie 2003).

2 Design of the research

2.1 Objectives of the research

The first aim of the research is to explore settlement patterns and housing conditions of the Bangladeshi community living in London and Rome. The decision to study Bangladeshis⁷ in these two capital cities originates from two statistics, firstly, the United Kingdom and Italy are according to Eurostat (2015) two European countries with the highest number of persons born in Bangladesh, and secondly, London and Rome represent two largest and complex communities not only within the respective countries, but also among European capitals.

We assume that the spatial distribution of one immigrant group in two different urban contexts may be a result of different contextual factors, cultural preferences of a group or the combination of more different aspects.

This research is aimed to shed more light on this issue, using the case of the Bangladeshi community in London and in Rome. For this purpose, we investigate the similarities and differences between spatial distributions of this group in the two cities, together with the development between 2001 and 2011, and attempt to understand the factors that are likely to determine these patterns. Furthermore, it is analyzed the relationship between the spatial distribution of Bangladeshis and the distribution of specific housing characteristics. Limited by the available data, we attempt to compare some of the characteristics of Bangladeshis in London and in Rome and understand better the differences between these two communities.

The second and crucial objective of the study is the realization and the analysis of the results of the original small sample survey focused on the Bangladeshis living in Rome. The main motivation has been a lack of adequate official statistical data allowing more detailed information about this community, and to that related relatively low number of the relevant studies focusing on Bangladeshis living in the urban area of the Italian capital city. Similarly, while the studies of housing conditions of Bangladeshis in London are numerous, an in-depth analysis related to the housing conditions of Bangladeshis in Rome is still missing or very scarce. Thus, one of the aims of this thesis is also to contribute to filling this gap.

⁷ Immigrant or ethnic group is considered according to different definitions of foreign population in Italy and in the UK. For further details see Chapter 3.2.1 (Page 47).

2.2 Research questions

Under the aforementioned objectives of this project, we define following research questions that can be thematically subdivided in four areas:

- 1. Identification of overall settlement patterns
- a) Is it possible to identify any specific models of settlement patterns for Bangladeshi community in London and Rome?
- b) To what extent coincide or differ the explaining factors of the spatial distribution of Bangladeshi community in two different contexts?
- c) Is it observable any change in the development of settlement patterns of Bangladeshis between 2001 and 2011? If yes, what is the direction of these changes?

Within the analysis of the general settlement patterns of Bangladeshis in London and in Rome, we tend firstly to find out if it is possible to identify some peculiarities of Bangladeshi models of spatial distribution in the two different contexts (see Chapter 3.3.1). Therefore, we study the character of Bangladeshi settlement patterns in both selected cities and explore if the spatial distributions of Bangladeshis in London and in Rome are still coherent with the findings in the literature, describing this group as highly spatially segregated (Peach 2006; Casacchia *et al.* 2012). Afterwards, we attempt to investigate if these settlement patterns have changed during the last decade, and how can be defined the spatial development of Bangladeshi community in London and in Rome.

- 2. Exploring the relation between the spatial distribution of Bangladeshis and the distribution of housing characteristics
- a) Are diverse housing characteristics (types of tenure, accommodation types or overcrowded households) associated with diverse spatial distribution of Bangladeshis in London? Or are the cultural preferences that play the crucial role?
- b) Is it possible to identify any relation between the composition of Bangladeshi households and their settlement patterns in the urban areas of London and Rome?

In the second group of research questions, we focus our attention on the intragroup differences of settlement patterns that might be hidden under the overall patterns of the Bangladeshi spatial distribution (see Chapter 3.3.2). Firstly, on the case of Bangladeshis in London⁸ we study if the fact of being an owner or renter, the fact of living in an apartment/flat or house and the fact of living in overcrowded household are associated with the specific spatial distribution. Additionally, we explore if there exist any household typologies (i.e. one person households, households of one couple with or without children, etc.) that are associated with different settlement patterns of Bangladeshis in both London and Rome and if it is possible to find any similar tendencies in terms of residential choice and spatial distribution.

- 3. Comparison of Bangladeshi communities in London and in Rome
 - a) What are the main differences between Bangladeshis living in London and Bangladeshis living in Rome with respect to demographic and housing characteristics?
 - b) Can be identified any similarities between the spatial distribution of Bangladeshi population in London and Rome?

The following research questions represent a comparative analysis of Bangladeshi community in London and in Rome in terms of demographic and housing characteristics (see Chapter 5). In this context we explore the existence of similarities and differences related to the age structure, household composition and household size, of Bangladeshis in the two contexts and highlight the most important features. Furthermore, we compare the character of the Bangladeshi clusters in London and in Rome, considering not only the geographical perspective, but also the urban and historical background.

- 4. The profile of Bangladeshis living in Rome with a particular interest in the housing conditions
 - a) What are the characteristics of Bangladeshis in Rome according to the results of the survey?
 - b) What is the effect of selected socio-demographic, economic and housing characteristics and different social network channels on the regular housing conditions, housing satisfaction and level of overcrowding?
 - c) It is possible to identify a relationship between a channel through which Bangladeshis find their accommodation and specific housing conditions?

 $^{^{8}}$ The analogous analysis for Rome is not possible due to a lack of required data.

Finally, the last group of research questions is entirely based on the results of the survey that was realized in 2013 and that represents a crucial part of this project (see Chapter 4.2). The most interesting outputs of the analysis of the survey results are presented in order to provide more detailed information about the profile of this community in the Italian capital city. Moreover, we confront the results of the survey with the findings in the literature to identify the characteristic features of this community. Afterwards, particular attention is concentrated on the housing situation of Bangladeshis living in Rome (See Chapter 4.3), and in this context we explore also the relation between different channels of social networks through which Bangladeshis find their accommodation and housing conditions to which they are related.

3. Settlement patterns of Bangladeshis in London and in Rome

This chapter focuses on the spatial distribution of Bangladeshi population in London and Rome through the investigation of settlement patterns that are formed by this group across the two different city areas. Attention is concentrated especially on the overall spatial patterns and subsequently on the intra-group differences of Bangladeshi spatial distribution that might be related to some housing characteristics, such as tenure, accommodation type, living arrangements or level of overcrowding. On this purpose, we employ the combination of traditional single index measures and measures of global and local spatial autocorrelation. In this way, we are able to identify the general patterns and the distribution of clusters, acquiring much greater insight into the nature and the extent of Bangladeshi settlement patterns.

The first section provides a description of the data sources; the second describes the problems we had to face up during the research and the selected methodology approaches that were used in the study of the spatial phenomenon. Finally, the last part shows the results of all the spatial analyses.

3.1 Data characteristics

Data used to examine settlement patterns of Bangladeshi population derive from different sources of official statistics of the UK and Italy. Specifically were employed the following data: (1) UK Census data for 2001; (2) UK Census data for 2011; (3) Italian Census data for 2001; and (4) Population Register data of Rome for 2013.

In the next paragraphs, these data are described, separately for London (data of the UK Census 2001 and 2011) and Rome (data of the Italian Census 2001 and data of the Population Register Data of Households in Rome 2013). The original intention had been to compare data of two censuses in each of selected cities, hence providing a higher comparability of respective settlement patterns. Nevertheless the data of the Italian Census 2011 that would be essential for the exploration of spatial patterns, was not available at the time of the elaboration, the data of the Population Register for 2013 has been employed. However, in order to attempt a better comparability of the results the temporal proximity of two data sources has been maintained.

3.1.1 United Kingdom

The data used in this research concerning London, England and the United Kingdom comes from the UK Census 2001 and 2011. In England and Wales, the census is planned and carried out by the Office for National Statistics (ONS). Elsewhere in the UK, the responsibility lies with the National Records of Scotland and the Northern Ireland Statistics and Research Agency. ONS is the UK Government's single largest statistical producer of independent statistics on the UK's economy and society, used to assist the planning and allocation of resources, policy-making and decision-making. In its capacity as the national statistics office for the United Kingdom, ONS also compiles and releases census tables for the United Kingdom when the data from England and Wales, Scotland and Northern Ireland are complete (ONS 2013). The data for London used in this research is available thanks to a user friendly and widely documented database of official labour market statistics 'Nomis' permitting a free access to the aggregated data of the UK Census 2001 and 2011 (ONS Nomis 2013).

UK Census 2001

The UK Census 2001 was held on Sunday 29 April 2001 and after the UK Census 1991 it was the second census that included a question on ethnic group. A census questionnaire was issued to each household in England and Wales. Then, there was also individual questionnaire, that did not have questions about the household or housing, but there was a form that collected information about each communal establishment⁹. The 2001 Census questionnaires were designed for self-completion. There was guidance on the forms on how to complete them, and assurances on confidentiality. Help was given also by field staff to people who had difficulty filling in the forms. The household questionnaires had a section for listing of household members, and 10 questions about housing. There was a section on the relationship of the household members to one another, and up to 35 questions for each household member, plus the extra question on Welsh language in Wales (ONS 2014).

UK Census 2011

The 2011 Census took place on 27 March 2011 with a number of new approaches designed to improve census return rates in all areas and with all

⁹ Communal establishment is defined as managed residential accommodation where there is full-time or part-time supervision of the accommodation, e.g. care homes, prisons, university halls or boarding schools (ONS 2014).

population groups. As the previous census, it was conducted on the same day in England and Wales, Scotland and Northern Ireland to ensure coherence and consistency. All of the 25 million household questionnaires were posted out, based on a newly developed national address register. Additionally, it was the first UK census to provide the opportunity for online completion of household forms. The questionnaire tracking system allowed targeted field follow-up to identify and follow up households that had not returned a questionnaire. While the questionnaire for the 2001 Census included only usual residents, the census in 2011 included also visitors staying in the UK on the night of 27 March 2011, census day.

Geographical level used in the UK analysis

All analyses for the area of London¹⁰ elaborated in this project refer to one of nine regions of England located in its southern part (Map 1). The London occupies 1,572 square kilometres of territory and it is divided in two counties, Inner and Outer London¹¹ (Map 2). Inner London refers to the part of London falling within the boundaries of the former London County, which existed from 1889 to 1965, including the City of London and 13 of the London boroughs (ONS 2015). In 2001, the population of London was 7.17 million and until 2011, this number increased by more than one million, to 8.17 million (ONS 2013).

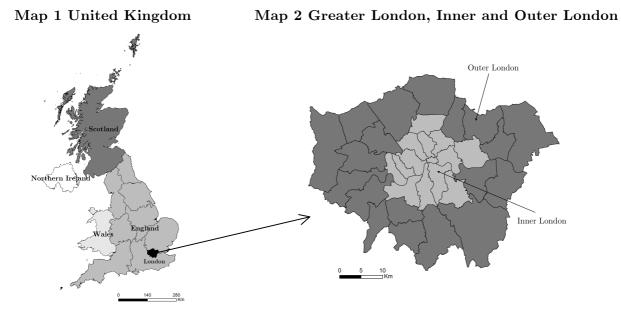
Map 3 shows the geographical subdivision of London in 33 local authorities (32 are London Boroughs¹² plus the City of London) and 628 wards¹³. The ward level is used for all advanced spatial analyses developed in this project, whereas the local authority level is utilized mainly for better visualization of the results of these analyses and for better identification of areas of relevant Bangladeshi settlement. According to the definition of the ONS, the average number of persons in each ward is at least 1,000 usual residents (or 400 households). In 2011, the average population size of ward was 11,400 and the average population size of local authority was 125,500 persons.

¹⁰ London or Greater London indicates the same city area.

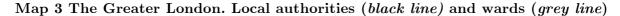
¹¹ According to the ONS definition of Inner and Outer London (ONS 2015).

 $^{^{12}}$ London boroughs have populations of around 150,000 to 300,000. Inner London boroughs (13 units) tend to be smaller, in both population and area, and more densely populated than Outer London (19 units) boroughs (ONS 2015).

 $^{^{13}}$ According to the geographic level of 2011 Census Merged Wards.



Source: own elaboration on the geographic reference data of ONS (ONS 2013)





Source: own elaboration on the geographic reference data of ONS (ONS 2013)

Considering the ward level, it is important to note, that between the UK Census 2001 and the UK Census 2011 there had been a modification in the classification of wards used for appropriate censuses. While in the census of 2001 the geographical level of wards was represented by '2003 CAS¹⁴ wards' (composed of 633 units), in the census of 2011 was used the classification of '2011 census merged wards' (composed of 628 units). In essence, eight of the smallest¹⁵ wards of City of London used in 2003 CAS wards were merged into four receiving wards in 2011 merged wards to avoid the confidentiality risks of releasing data for very small areas (ONS 2014). To unify both ward classifications in this project, the 2003 CAS wards were converted to 2011 merged wards.

Selection of variables in the UK data

The research is focused on housing issues and therefore the variables selected in the UK census databases had to cover the studied phenomenon in the appropriate way. During the initial selection both the availability and the suitability of the characteristics were taken into account. In that purpose we draw inspiration in the research literature that had been dealing with the housing matters.

Since we have direct focus on one immigrant group, the key variable for the study is the ethnic group. According to the definition¹⁶ used in the UK Census 2011, ethnic group classifies people according to their own perceived ethnic group and cultural background (ONS 2014). An ethnic group question was first asked in the 1991 Censuses in England, Scotland and Wales and was then repeated in both following censuses (2001 and 2011) in all four countries of the United Kingdom, including Northern Ireland. The Bangladeshi ethnicity was observed in both censuses, referring to 'Bangladeshi and British Bangladeshi' ethnic group.

In the analysis of the UK censuses data are considered individual sociodemographic characteristics (age, gender, highest level of education and economic activity) and household characteristics related to housing conditions (tenure type, accommodation type, household composition and number of persons per room). All the variables are analyzed as categorical.

Individual characteristics are following:

- Age: is categorized in following classes: '0-15', '16-24', '25-49', '50-59', '60-64', '65-74', '75 and over'.
- Sex

¹⁴ CAS: Census area statistics.

 $^{^{15}}$ It was referred to the CAS wards with fewer than 100 residents or 40 households.

¹⁶ In the UK Census 2001, the instruction for a question on ethnic group related the ethnic group only to the cultural background (not own perceived ethnic group).

Household characteristics concern:

- Household composition: is one of key variables to classify households, according to the relationships between the household members. Households consisting of one family and no other usual residents are classified according to the type of family (married or same-sex civil partnership, cohabiting couple family, or lone parent family) and also according the number of dependent children. Other households are classified by the number of people, the number of dependent children, or whether the household consists only of students or only of people aged 65 and over. In the analyses the classification of this variable is reduced into five categories: 'one person household', 'one couple only', 'one family with children', 'lone parent', and 'other types of household'.
- **Tenure type:** used in the analysis is divided in three categories: 'owned' (either owned outright, owned with a mortgage or loan, or shared ownership¹⁷, 'social rented' (rented from Council, Registered Social Landlord, Housing association, Housing Co-operative and Charitable Trust), 'private rented or living rent free' (renting from a private landlord or letting agency, employer of household member or other than private rented accommodations).
- Accommodation type: refers to the type of accommodation used or available for use by an individual household, represented by two categories: 'whole house of bungalow' and 'flat, maisonette or apartment, or mobile/temporary accommodation'. In the analysis, we simplify these terms by using house and apartment/flat.
- The number of persons per room: is equal to the number of usual residents in a household divided by the number of rooms in the household. The term 'room' do not include bathrooms, toilets, halls or landings, or storage spaces. Included are all other rooms, kitchens, living rooms, bedrooms, utility rooms, studies and conservatories. The census data classifies the indicator of overcrowding using three thresholds: 0.5, 1.0 and 1.5 persons per room. Thus, in the case of London are as overcrowded households considered households with more than 1.5 persons per room.

3.1.2 Italy

Unlike the uniform data source in the case of the UK, the data we used for the analysis in Rome comes from two different sources of official statistics. For 2001 the data of the Italian Census 2001 was used, whereas for 2011 the corresponding census

¹⁷ Paying part rent and part mortgage.

data by citizenship was not available for smaller geographic areas at the moment of elaboration of this project. For this reason the data of Population Register of Rome for 2013 referring to all registered households in the Municipality of Rome that contains at least one resident member of Bangladeshi citizenship was employed.

Italian Population and Housing Census 2001

The Italian Population and Housing Census 2001 was as other population censuses in Italy organized by the Italian National Institute of Statistics 'Istituto Nazionale di Statistica' (ISTAT). ISTAT is the main producer of official statistics in Italy and among its activities belong the census of population, economic censuses and a number of social, economic and environmental surveys and analyses. Moreover, it is the largest producer of statistical information in Italy and an active member of the European Statistical System that is coordinated by Eurostat (ISTAT 2014).

Population and Housing Census 2001 in Italy was held on 21 October 2001. The dataset available for this project included all foreign citizens present in a given moment in the Municipality of Rome (98,427). On the basis of the information on the nationality, the Bangladeshis accounted with 3,124 individuals for 3.2% of all foreign population. Nevertheless, due to the limited access to the data of the census, not all required characteristics of this immigrant group were achievable, including those regarding the housing situation. However, the available individual data permitted to shed light on the profile of the Bangladeshis that were present in Rome at the Census reference date in 2001.

Before proceeding to the spatial analysis itself, data validation was carried out to ensure that all the data meet the requested integrity and correctness. All the corrections were performed on the geographical level of census tracts¹⁸. The first correction was applied on the census tract number 1130151 where were registered 203 citizens of Bangladesh (198 men and 5 women). Evaluating the location, it was sustained that these persons were only registered but actually not living there. Therefore, in order to observe the clean pattern of the residential settlement of this community, they were eliminated from the dataset used in the spatial analysis. Similarly, 291 individuals were excluded from the spatial analysis, because for these records the census tracts were not identified (the value of assigned census tract was 9999999). Proceeding with these corrections, the final number of citizens of

 $^{^{18}}$ We do not use the census tract level for the main analysis because of relatively small size of Bangladeshi population.

Bangladeshi citizen used for the spatial analysis related to the year 2001 was 2,630 individuals.

The characteristics provided by the dataset were following: age, gender, country of birth, citizenship, year of immigration, marital status, education, economic activity, job position and the motive for migration.

Population Register data 2013

The second data source for Italy is provided by the Population Register of Rome that keeps an evidence of all the registered population in the area of the Municipality of Rome (Comune di Roma), including both Italian and foreign population. For the purposes of this project, the microdata containing the individual records covering all the households with at least one citizens of Bangladesh for 2013 were acquired from the Department of Statistics of the Municipality of Rome. Additionally, the register data related to the Italian and foreign population¹⁹ for the period from 2006 to 2013 were used.

Population Register data of 2013 includes all registered households with at least one member of Bangladeshi citizenship at 31 December 2013. In total, there were 28,770 individuals, of which 26,901 lived in family households and 1,869 lived in cohabitation households. Total number of Bangladeshi citizens was 25,646 individuals (25,562 in family and 84 in cohabitation households), but due to the presence of socalled 'fictitious residences' ('residenze fittizie'), we eliminated 6,831 individuals and as a consequence we obtained the dataset of 18,815 Bangladeshi citizens. The excluded fictitious residence can be divided in three groups. The first group (the census tract number 1130151) was located in Trastevere zone (1b) and there were registered 4,127 Bangladeshis (4,080 men and 47 women). The second was (the census tract number 2240042) situated in zone Torrespaccata (8a) and in this case there were 2,412 Bangladeshis (2,345 men and 67 women). Finally, one person was eliminated from the census tract 4480045 because registered as living in cohabitation but there were no other persons listed in the household (19g).

In summary, the dataset provides information concerning socio-demographic (age, gender, marital status, year of marriage), migration (nationality, country and municipality of birth, year of immigration, country of immigration) and structural

¹⁹ Classified by citizenship, age, gender and municipality/urban zone. Available at: <u>https://www.comune.roma.it/wps/portal/pcr?jppagecode=rag_gen_stat_popolazione.wp</u>

characteristics about the household and its components, along with the territorial information for districts, urban zones and the census tracts of 2001.

For each member of given household is specified the relationship to the Household Reference Person (HRP). HRP actually only replaces the indication of head of household. This characteristic 'relation to the HRP' permits us to analyze the individuals' living arrangements, and furthermore, in the combination with the marital status we were able to construct a household variable regarding the composition of Bangladeshi households.

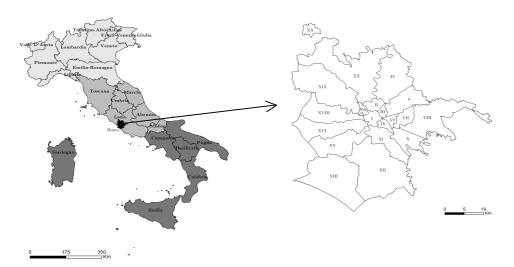
Geographical level used in the analysis of Italy

The area of Rome considered in the study refers to the area of the Municipality of Rome located in the region of Lazio (Map 4). The Municipality of Rome occupies 1,285 square kilometres and currently it is divided in fifteen districts. According to the Italian Census data, in 2001 Rome had a population of 2.55 million that until 2011 rose up to 2.62 million (ISTAT 2001, 2011). From 2001 to 2013 the metropolitan territory of Rome was divided into 19 districts²⁰ that were reduced in 15 units in 2013. The districts of Rome are then subdivided into 155 urban zones, 109 of which are located inside the Rome Beltway (G.R.A.). Each urban zone is identified by a numerical code that indicates the number of municipality and a letter specifying the proper urban zone (e.g. 1a). The map 5 shows the old subdivision of the Municipality of Rome that had been valid until 2013. In this project, we use the old subdivision mainly due to the fact that both data sources were classified following the old division scheme.

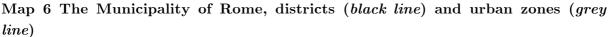
²⁰ The old division of districts was valid according to the deliberation No. 22 from 19th January 2001 until 7th March 2013 when an administrative reform, i.e. the deliberation No.8 of 7th March 2013, merged the existing districts into the current 15 districts (ISTAT 2014).

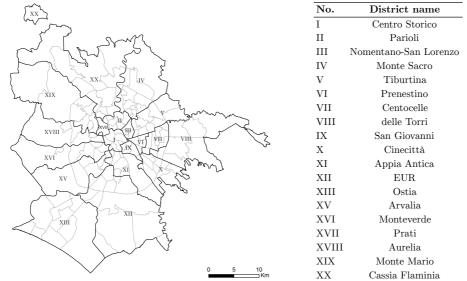
Map 4 Italy

Map 5 The municipality of Rome (19 districts)



Source: own elaboration on the geographic reference data of ISTAT (2015)





Source: own elaboration on the geographic reference data of ISTAT (2015)

Map 6 illustrates two territorial subdivisions of the Municipality of Rome that are used in this study, districts and urban zones. While the district level is used for better visual orientation and identification in the space, the urban zone subdivision is used as a geographical unit for all spatial analysis concerning the Municipality of Rome. The latter were defined in 1977 as a disintegration of previous administrative districts mainly in order to design homogeneous areas from the demographic, territorial and urban point of view (Crisci 2010). The average population size is about 18,300 resident persons per urban zone and 149,000 per district.

3.2. Methods

The research project seeks to analyze the spatial patterns of Bangladeshi immigrants and to see if there exist any specific settlement patterns according to different housing characteristics, such as type of tenure, accommodation type or household composition. In this section all the methods that were utilized in order to give an introductory insight to the studied phenomenon and subsequently to answer the research questions formulated in Chapter 2. In that purpose, different approaches to the analysis of spatial patterns were combined.

The first paragraph presents the limitations that emerge and that have to be taken in consideration when performing a comparative analysis between two countries. Successively, all the techniques that were employed to measure the spatial distribution of Bangladeshis are described. The second paragraph introduces the traditional indices that were applied to examine the nature and level of Bangladeshi residential segregation and finally, the third paragraph describes indices of global and local spatial autocorrelation that were utilized in order to identify an overall pattern and the representative clusters of the spatial distribution of Bangladeshis in London and Rome. It is important to emphasize that all spatial analyses in this project are based entirely on the official statistics data described in the first part of this chapter.

3.2.1 Problems and limitations in the analysis

If one intends to compare one phenomenon in two different places it is essential to realize that it might be extremely difficult task since there are several differences to consider. This is even more the case when an international and spatial comparison is aimed at (Van Kempen 2005, Musterd and Fullaondo 2008). Thus, before discussing the empirical results of the specific spatial analyses we believe it is essential to underline the limitations of the comparative analysis that can emerge when using databases originated in two different European countries. In the case of comparison of several cities, as an important limitation is commonly mentioned the lack of the systematic information about immigrants at the intra-urban level that would be guarantee the comparability among cities in different countries (see Malheiros 2002).

Essentially, the first concern when analysing one foreign group in two countries is the criteria used to classify the population group of foreign origin in the different countries, i.e. how is defined by the respective national statistics. A number of approaches have been taken to identify 'racial' or 'ethnic' groups and consequently, in different countries, 'race' or 'ethnicity' has been defined using one or more characteristics, such as country of birth (own or parents), nationality, language, religion, skin colour, cultural traditions or ancestral origins (Erens 2013). In this project two distinct concepts of ethnicity are employed.

In London, the classification used in the UK Census data is built on the selfidentification with a specific ethnic group and cultural background. The self-identify question on ethnic group is then based on the Bulmer's (1996) definition: "a collectivity within larger population having real or putative common ancestry, memories of shared past and a cultural focus upon one or more symbolic elements which define the groups identity, such as kinship, religion, language, shared territory, nationality or physical appearance. Members of an ethnic group are conscious of belonging to an ethnic group".

In Italy, on the other hand, both official statistics sources (i.e. ISTAT and the Population Register) operate with the definitions of nationality and country of birth. In the present study, we use the nationality criteria as the key variable to assess the ethnicity.

At first sight, these definitional differences pose severe limitations to crosscomparative analysis. Though, these statistical classifications express how the foreign group is perceived by the socio-political systems in each country. Since the ethnic spatial segregation is associated with socio-ethnic characteristics, in countries with rather generous naturalisation policies, like the United Kingdom, the use of nationality criteria might be limiting, excluding a large proportion of the foreign-born population. Furthermore, those who were born in the former British colonies numerously from the advantageous benefited naturalisation criteria (e.g. Commonwealth citizenship). Taking this into account, it seems to us more relevant to use databases that respect the respective classifications rather than use a universal classification, which might exclude significant proportion of the foreign origin population.

The second type of issue to face up when studying specific phenomena in two cities concerns the different sizes of the cities and the size and number of spatial units in each city. In terms of spatial analysis, some authors (Peach 1996; Wong 1997; Malheiros 2002) have discussed the impact of both the demographic dimension of the groups in the analysis and the size of the areal units used to calculate segregation indices. Synthetically, it is possible to say that the value of segregation indices increases when the dimension of the areal units used in the analysis decreases (Wong 1997).

It is important to take into consideration this statistical irregularity when comparing the results of the segregation indices obtained for London and Rome, because of the differences in the average size of the observed spatial units. Since the size of urban zones of Rome is much higher that the size of London's wards, it is expected that for Rome the values of indices will be lower. Nevertheless, if we consider another statistical trend is associated with segregation indices, and that is a tendency towards increased values when population subgroups are very small (Peach 1996), we could expect higher segregation values in the case of Rome.

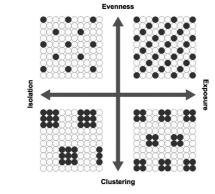
Thus, when comparing spatial patterns and indexes, calculated on the basis of information of sub areas in a spatial system, the selection of areal units is very important, because as we can see, the indices are not independent of the size of these units (Musterd and Fullaondo 2008).

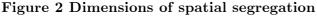
However, we believe that all these limitations and different contexts should be taken into account when interpreting the results of the following spatial analysis, but they do not invalidate the identification of respective trends.

3.2.2 Analysis of geographical differences

The term 'spatial analysis' has an origin in geography that can be traced back to at least the 1950s and it is widely used in the Geographical Information Systems (GIS) (Haining 2003). A definition of spatial analysis is that it represents a collection of techniques for analysing geographical events where the results of analysis depend on the spatial arrangement of the events (Goodchild 1991). By the term 'geographical event' is meant a collection of point, line or area objects, located in geographical space, attached to a set of one or more variable values. Essentially, spatial analysis requires information both on variable values and the geographical locations of the objects to which the collection of variables are attached (Haining 1994; Fotheringham and Rogerson 2013).

Residential segregation, according to Massey and Denton (1988), is the degree to which two or more groups live separately from one another in different parts of the urban environment. Massey and Denton (1988) considered residential segregation as a multidimensional phenomenon and under this assumption introduced a conceptual framework concerning its five dimensions: (1) unevenness, (2) exposure, (3) concentration, (4) clustering and (5) centralization. These dimensions indicate the manner in which groups are spatially separated and thus hindered from interacting with one another. Some authors (Reardon and O'Sullivan 2004; Brown and Chung 2006) have argued that these five dimensions can be reduced in only two dimensions. According to Reardon and O'Sullivan (2004) centralization and concentration dimensions are omitted from the conceptual framework since both are regarded as subcategories of the evenness and consequently, the *evenness* and *isolation* are in their conception considered as the two distinct conceptual dimensions of segregation (Figure 2).





Source: Adapted from Reardon and O'Sullivan (2004)

The dimension evenness refers to the balance of the distribution of groups and it is independent of the composition of the whole area. Exposure, on the other hand, depends on the overall composition of the city and it refers to the possibility of different groups (or in the case of isolation, the members of the same group) living side-by-side (Reardon and O'Sullivan 2004). Brown and Chung (2006), on the other hand, argue that the empirical evidence has showed a high correlation between evenness and concentration, and exposure and clustering measures (Massey and Denton 1989; Massey *et al.* 1996) and therefore, the five dimensions should be reduced in *concentration-evenness* and *clustering-exposure*. The measures described in following paragraphs, and subsequently used for the present analysis, are based on the dimensions suggested by Brown and Chung (2006).

Traditional indices of residential segregation

As aforementioned, residential segregation is a spatial process, and until now a wide variety of ways how to measure spatial inequalities has been developed (Duncan and Duncan 1955; Massey and Denton 1988; Peach 1996; Johnston *et al.* 2005). In this study, in an attempt to examine the nature and level of residential segregation, dissimilarity index (*ID*), index of isolation, index of interaction and location quotient (*LQ*) are applied. The *ID* measures evenness of the group, whereas the index of interaction and isolation measures the exposure and the isolation of Bangladeshis to

the local population²¹. The LQ is then used to examine the spatial concentration of Bangladeshis, i.e. to describe their relative concentration in the study areas.

Residential evenness refers to the distribution of a specific group over an entire urban area. Essentially, evenness measures compare the spatial distributions of different population over the same set of areal units of a city (in this case the wards in London and the urban zones in Rome). It is important to mention, that values of segregation indices are largest when majority and minority populations are unevenly distributed and smallest when the two populations are distributed evenly.

One of the most widely used measures of segregation is the *index of dissimilarity* (ID), a summary index of residential adjustment, indicates the degree of unevenness between the distribution of two populations in terms of a symmetrical relationship (Duncan and Duncan 1955). Conceptually, the index may be interpreted as the percentage of given population group that would have to shift its areal unit in order to form no segregation between this group (e.g. Bangladeshi group) and the local population (e.g. White group) in the entire area. The value of ID ranges from 0 to 100, in which 0 represents equal distribution and thus no segregation, while 100 represents complete segregation with no areal overlap between groups. The formula of ID (applied on the example of Bangladeshi population) is given as follows:

$$ID = \frac{1}{2} \sum_{i=1}^{n} \left| \frac{b_i}{B} - \frac{w_i}{W} \right|$$
(1)

where:

n = the total number of areal units *i* in the entire area (e.g. city) $b_i =$ the Bangladeshi population in an areal unit *i* B = the Bangladeshi population in the entire area $w_i =$ the White population in an areal unit *i* W = the White population *y* in the entire area

It is important to note that even if the *ID* is the most commonly used measure of residential evenness, points of caution have to be stated in its relation. Firstly, it measures only two groups at time, secondly it is its aspatial character – it tells only the relative degree of segregation but not the spatial patterns of segregation (Brown and Chung 2006). Moreover, as aforementioned, the *ID* values are strongly influenced by both the size of areal unit and the size of the social groups analyzed (Peach 1996; Kaplan and Holloway 1998).

 $^{^{21}}$ Italian nationals in Rome and White British ethnic group in London

Some authors (Wong 2005; Altavilla *et al.* 2010) have tried to correct the limitations of this index. Wong (2005) proposes spatially sensitive version of traditional indices of segregation, by modelling interactions across areal units by a weighted average. Altavilla *et al.* (2010) present a new bootstrap correction of *ID* that allows the reduction of the distortion (the effect of population and unit size) and they illustrate its efficiency on the example of the city of Catania, comparing dissimilarity levels of settlement patterns of foreign population.

Residential exposure, the second dimension of the residential segregation, refers to the degree of personal contact between the majority population and minority members that share a common residential area (Massey and Denton 1988). The most widely used measure of exposure is *Lieberson's* P^* index that takes into account the influence of both the population composition and the spatial distribution to describe the isolation of certain minority group either from all others from a specific group (Lieberson 1981). In this research, in order to explore the level of exposure of the Bangladeshi population in the two geographical contexts, two basic measures of P^* index are used, the interaction index and the isolation index.

The *index of interaction* ${}_{x}P_{y}^{*}$ measures the exposure of members of Bangladeshi group to members of White population as minority-weighted average of the proportion of the majority population in each geographical unit in a large area. It is expressed as:

$${}_{b}P_{w}^{*} = \left(\frac{b_{i}}{B}\right) \left(\frac{w_{i}}{t_{i}}\right) \tag{2}$$

where, t_i = the total population of an areal unit *i*.

On the other hand, the index of isolation ${}_{x}P^{*}_{x}$ refers to the isolation of the Bangladeshi group from all others and shows the probability that the members of the group X are exposed only to one another. It is computed as the minority-weighted average of the minority population in each geographic unit, expressed as follows:

$${}_{b}P_{b}^{*} = \left(\frac{b_{i}}{B}\right) \left(\frac{b_{i}}{t_{i}}\right) \tag{3}$$

Both the interaction and isolation indices range from 0 to 100, and indicate the probability that a randomly selected member of the Bangladeshi group shares an area with a White population member (interaction index) or the probability that the Bangladeshi member shares an area with another Bangladeshi member (isolation index). As in the case of *ID* it has been observed that its values are very sensitive to the relative size of the groups under examination (Luk 2008), i.e. the value of the measure tent to be higher with increasing size of the group. For this purpose, also for this index a correction has been proposed (Barbagli and Pisati 2012) by dividing the index by the proportion on the total population of the group under the examination.

Finally, concentration dimension refers to the proportion of urban space occupied by a minority, i.e. Bangladeshi group. Minorities residing in a relatively small share of total area in the city would be considered more residentially concentrated and therefore more segregated. Unlike the previous indices that are measured without regard to the spatial patterns of the majority and minority residence in the city (Duncan and Duncan 1955), location quotient (LQ) is highly spatial (Brown and Chung 2006). It describes the relative concentration of Bangladeshi group in one areal unit of a larger area (e.g. a city)(Johnston *et al.* 2000). The formula of the LQ for the areal unit *i* is expressed as follows:

$$LQ_i = \left(\frac{b_i}{t_i}\right) \middle/ \left(\frac{B}{T}\right) \tag{4}$$

where T = the total population in the entire area.

The of LQ equal to 1.0 indicates that the percentage of Bangladeshi group in an areal unit matches its percentage for the entire area; the LQ>1.0, indicates that the percentage in an areal unit is greater than for the entire area; and the LQ<1.0shows that the percentage in an areal unit is less than for the entire area. To assess significance, the LQ of 0.85 or less is used to indicate under-representation of Bangladeshis in the areal unit, and the LQ of 1.20 or greater to indicate its significant relative concentration. These thresholds correspond with one standard deviation above or below LQ=1.0 (Brown *et al.* 1996). Therefore, LQ allows exploring the spatial structure of migrants and mapping the spatial distribution of the phenomenon according to the most disaggregated zoning system of the study region (Cristaldi 2002).

Turning the attention back to the aspatial measures like ID or Lieberson's P^* index, although they have been widely used, two key criticisms have arisen about such type of methods: the 'checkerboard' problem and the 'modifiable areal unit problem' (MAUP) (Openshaw 1984; Reardon and O'Sullivan 2004; Brown and Chung 2006). Checkerboard pattern is used to illustrate the problem that aspatial segregation measures do not account for the proximity of singular locations; they rather provide a measure of the composition of neighbourhoods. Although all of black squares in the checkerboard move to one side of the board and all of white squares to the other side, an aspatial measure of segregation would not register this change since the compositions of the areas are the same despite the relevant local differences between the two schemes.

Another important phenomenon associated with the use of data aggregated to specific geographical areas is the well-known MAUP. The information about the population can be displayed using many different areal units (e.g. region, province, county, etc.). None of these units has essential meaning for the underlying populations, since the units are 'modifiable' (Fotheringham and Wong 1991). Thus, any observed pattern in areal data could be due partly to the used zoning system (Martin 1996), since in many cases, the geographical boundaries are 'imposed' in the sense that they do not relate in any meaningful sense to the variables of interest. Usually, data are aggregated from source observations to geographical units such as census tracts or districts, which have no special meaning in terms of the underlying geographical distributions such as ethnic composition. MAUP refers to the fact that the observed aggregated values will vary according to what type of geographical unit are selected as a boundaries. MAUP comprises both scale and aggregation effects. The scale effect relates to the size of the areal units that we use and the aggregation effect relates to the exact way in which they are assembled at a given scale. Changes in one or another will bring about changes in the apparent geographical distribution of the variable under investigation (Openshaw 1984).

Unlike LQ, indices of evenness and exposure described above are signally aspatial in that they are global in nature and not sensitive to the actual spatial distribution of different population groups. Despite the problems related to the traditional measures, they allow straightforward comparisons of urban areas across time (Simpson 2007) by delivering a first, general insight on the segregation issue.

Spatial Analysis Techniques: spatial autocorrelation

Although the traditional measures of segregation can usefully summarise a general pattern, they fail to illustrate many features of spatial distribution and are not able to captured specific local variations. To provide the needed answers, new measures that adequately account for the relationships of spatial contiguity among residential locations have been proposed (Moran 1950; Wong 1993; Anselin 1995; Ord and Getis 1995). Of these, the concept of spatial autocorrelation is currently one of the most important issues of spatial statistics, deriving directly from the first law of geography "All things are related, but nearby things are more related than distant things" (Tobler 1970). Spatial autocorrelation can be measured for both point and areal spatial patterns and may be defined as the relationship among values of a single

variable that comes from the geographic arrangement of the areal units in which these values occur. Basically, it measures the similarity of areal units within the entire area, the degree to which a spatial phenomenon is correlated to itself in space (Cliff and Ord 1973, 1981). Moreover, spatial autocorrelation statistics measure and analyze the degree of spatial dependency among observations in certain geographical area, i.e. the degree to which a set of spatial features and their associated data values tend to be clustered together in space (positive spatial autocorrelation) or dispersed (negative spatial autocorrelation) (Anselin 1995).

Generally, there are two basic types of spatial autocorrelation statistics: *global measures* identify whether the values of a variable exhibit a significant overall pattern of spatial association in the entire area, whereas *local measures* refer to the association of single areal units with respect to its neighbourhood, i.e. identifying the areal units of significant high and low value cluster.

In this research, both global and local measures of spatial autocorrelation have been applied. Initially, in order to introduce the phenomenon and provide an overall measure of spatial association, the Global Moran's I was calculated. In the second stage, one of the most used local measures of spatial autocorrelation – Anselin's Local Indicator of Spatial Association (LISA) was computed, taking into account local effects of the phenomenon.

Another important difference between spatial and traditional statistics is that spatial statistics consider also the spatial dimension and spatial relationship of the phenomenon. For example, having two contiguity-based neighbours (based on the adjacency of boundaries) it is assumed that the influence of these neighbours between different spatial units can be quantified using a spatial weight. There weights may be conceptualized in terms of spatial contiguity or adjacency (Rook's²² or Queen's²³) or the distance between two areal units. In order to quantify the spatial relationships in this project the Queen's case concept is used.

Variables used in the analysis of intra-group differences

As described in the previous section, we use a set of variables collected by official statistics of the UK and Italy, for years 2001 and 2011 (2013 for Rome). To measure the intra-group differences in settlement patterns related to housing conditions of Bangladeshis in London we selected a variety of variables associated with different aspects of housing, such as tenure, accommodation type, level of

 $^{^{22}}$ Rook's case: two polygons are adjacent to each other if sharing a common boundary.

 $^{^{23}}$ Queen's case: two polygons are adjacent to each other if sharing either a common boundary or a common vertex.

overcrowding and household composition. All of these variables are expressed as percentages of Bangladeshis per each areal unit (i.e. per ward). In detail, they are reported in Table 1 together with the variables used for Rome.

London	Housing characteristics	Rome	Household composition
Percentage of Bangladeshis per ward	Housing characteristicsTenure x_1 owners x_2 renters x_3 social rent x_4 private rent or rent free $Accommodation type$ x_1 flat/apartment x_2 houseOvercrowding x_1 over 1.5 persons per room $Household composition$ x_1 one person x_2 one couple only x_3 one couple with children x_4 loneparent x_5 other types	Percentage of Bangladeshis per ward x x	 unrelated only relatives only one couple only one couple with children one family with others

Table 1 Housing characteristics used in the analysis, London and Rome

In Rome, due to the absence of appropriate data, the intra-group differences are measured only with regard to household composition of Bangladeshi households in 2013. For this purpose, we constructed e new variable, based on the original variable 'relationship to the HRP' included in the Population register dataset. Also in this case, percentages of Bangladeshis per each areal unit (i.e. urban zone) are used.

Global Moran's I

Global Moran's I (GM-I) is one of the oldest and the most widely used indicators of spatial autocorrelation (Moran 1950) and up today represents a standard for determining spatial autocorrelation. It compares the value of the variable at any one areal unit with the value at all other areal units.

The formula of the GM-I statistics for spatial autocorrelation is:

$$I = \frac{n}{S_0} \frac{\sum_{i=1}^n \sum_{j=1}^n w_{i,j} z_i z_j}{\sum_{i=1}^n z_i^2}$$
(5)

where

 z_i = the deviation of a variable value for a real unit *i* from its mean $(x_i - X)$

 $w_{i,j}$ = the spatial weight between areal units *i* and *j* (a measure of spatial contiguity between the areal units *i* and *j*)

n = the total number of areal units

 S_{θ} = the sum of all spatial weights, $S_{_0} = \sum_{_{i=1}}^{n} \sum_{_{j=1}}^{n} w_{_{i,j}}$

The z_{I} -score for the *GM-I* is calculated as follows:

$$z_{I} = \frac{I - E[I]}{\sqrt{Var[I]}}$$
(6)

with the mean E[I] = -1/(n-1) and the variance $Var[I] = E[I^2] - E[I]^2$.

Basically, z-scores are simply standard deviations. If, for example, the value of z-score is +2.5, it is possible to say that the result is 2.5 standard deviations. Thus, for each areal unit it is calculated the deviation from the mean and consequently these deviation values for all neighbouring areal units (areal units with the specific distance band or having a common border) are multiplied together, resulting in the formation of a cross-product. If the values in the analysed dataset tend to cluster spatially, i.e. high values cluster near other high values or low values cluster near other low values, then the GM-I will be positive, showing positive spatial autocorrelation. In the case the high values tend to be near low values, the GM-I will be negative, indicating negative spatial autocorrelation. There will be no spatial autocorrelation if positive cross-product values balance negative cross-product values and thus the GM-I will be near zero.

The numerator of the GM-I is normalized by the variance, therefore the index values range between -1.0 (which is perfect dispersion) and +1.0 (perfect correlation). If the value I is equal to 0, it indicates that there is no correlation at all.

It is important to underline, that the GM-I is an inferential statistics, which means that the index values cannot be interpreted directly, but the observed values of the index I can be compared to its distribution only within the context of the null hypothesis of no spatial autocorrelation, i.e. the values of x_i are independent of the values x_i ($i \neq j$) at neighbouring locations.

For this measure, the null hypothesis states that the attribute being analyzed is randomly distributed among the areal units in the study area and therefore, the observed pattern of values of the study spatial processes is random chance. The zscores and p-values indicate if the null hypothesis can be rejected or not and also the presence of statistically significant clustering or dispersion. The p-value is a probability that the observed spatial pattern was created by some random process.

Like other indices of clustering, GM-I is a system-wide average, which provides no indication of the degree of variation. More information is provided by local measures of clustering, developed on the same principles as GM-I but which focus on variations across the map rather than its overall pattern (Mitchell 2005).

Local Indicator of Spatial Association (LISA)

Currently most widely used measures of local autocorrelation are the Anselin's Local Indicator of Spatial Association (LISA)(Anselin 1988, 1995) and the Getis-Ord's G_i^* (Getis and Ord 1992; Ord and Getis 1995, 2001). In this study we use the Anselin's measure, commonly called also Local Moran's I (*LM-I*) since it can be locally interpreted as an equivalent index of *GM-I*. The sum of all local indices is proportional to the value of Moran one (Anselin 1995). Initially, the measure of G_i^* had been selected as a key measure of local spatial clustering in this study, but after evaluating both methods, the advantages of applying the *LM-I* prevailed and subsequently we selected it as the main local measure for the spatial analysis of Bangladeshi settlement.

Simply to shed light on the motivations for such a decision we would like to highlight main differences between the two measures of local spatial autocorrelation. The main difference is that in the case of LM-I, the value of the areal unit being analyzed in not included in the analysis (only the neighbouring values are), whereas when using the Getis-Ord G_i^* , the value of each areal unit is included in its own analysis (also of the one in question). Obviously, both analyses are right, depends on the purpose of the study, i.e. which of the two is more suitable for the particular analysis. For example, if having an areal unit with a very high value that is surrounded by areal units with low values, using $G_i^* {}^{24}$ it would definitely show up as a hot spot (the value of the areal unit is high enough to bring the local mean up).

 24 The Getis-Ord $\mathrm{G_{i}}^{*}$ local statistics is defined as (Getis and Ord 1992):

$$G_{i}^{*} = \frac{\sum_{j=1}^{n} w_{i,j} x - \bar{X} \sum_{j=1}^{n} w_{i,j}}{s \sqrt{\frac{\left[n \sum_{j=1}^{n} w_{i,j}^{2} - \left(\sum_{j=1}^{n} w_{i,j}\right)^{2}\right]}{n-1}}} \sum_{\text{where:}} \bar{X} = \frac{\sum_{j=1}^{n} x_{j}}{n} \text{ and } S = \sqrt{\frac{\sum_{j=1}^{n} x_{j}^{2}}{n} - \left(\bar{X}\right)^{2}}$$

Alternatively, when using LM-I, the same areal unit would show up as a spatial outlier (High value surrounded by Low values).

The *LM-I* statistics is calculated as follows (Anselin 1995):

$$I_{i} = \frac{x_{i} - X}{S_{i}^{2}} \sum_{j=1, j \neq i}^{n} w_{i,j} \left(x_{j} - \overline{X} \right)$$
(7)

where

 $x_i =$ the variable value for an areal unit i

 $\bar{X}=$ the mean of the corresponding variable value

 $w_{i,j}$ = the spatial weight matrix between the areal units *i* and *j*

n = the total number of a real units i

and

$$S_{i}^{2} = \frac{\sum_{j=1, j \neq i}^{n} \left(x_{j} - \bar{X}\right)^{2}}{n-1} - \bar{X}^{2}$$
(8)

Then, the z_{I_i} -score for the *LM-I* is expressed as:

$$z_{I_i} = \frac{I_i - E\left[I_i\right]}{\sqrt{Var\left[I_i\right]}} \tag{9}$$

with the mean $E[I_i] = -\frac{\sum_{j=1, j \neq i} w_{i,j}}{n-1}$ and the variance $Var[I_i] = E[I_i^2] - E[I_i]^2$

where $E\left[I_i^2\right] = A - B$ and

$$A = \frac{\left(n - b_{2_i}\right) \sum_{j=1, j \neq i}^n w_{i,j}^2}{n - 1}$$
(10)

$$B = \frac{\left(2b_{2_{i}} - n\right)\sum_{k=1,k\neq i}^{n}\sum_{h=1,h\neq i}^{n}w_{i,k}w_{i,h}}{\left(n-1\right)\left(n-2\right)}$$
(11)

$$b_{2_{i}} = \frac{\sum_{i=1, i\neq j}^{n} \left(x_{i} - \bar{X}\right)^{4}}{\left(\sum_{i=1, i\neq j}^{n} \left(x_{i} - \bar{X}\right)^{2}\right)^{2}}$$
(12)

As in the case of GM-I, the LM-I is a relative measure and we can only interpret it within the context of its computed z-score (see above equation 9) or p-value.

A positive value of I indicates that a feature has adjacent features with similarly high or low attribute values; it means that this feature is part of a cluster. On the other hand, negative value of I indicates that the feature has neighbouring features with dissimilar values, showing that this feature is an outlier. However, the p-value for the feature must be small enough for the cluster (or outlier) to be considered statistically significant.

The LM-I allows, for each location, to assess the similarity of each feature with that of its surroundings. In this way five scenarios can emerge:

- 1) Features with high attribute values and high level of similarity with its surroundings (High-High Cluster), defined as *hot spots*
- 2) Features with low attribute values and high level of similarity with its surroundings (Low-Low Cluster), defined as *cold spots*
- 3) Features with high attribute values and low level of similarity with its surroundings (High-Low Outlier), defined as potential *spatial outliers*
- 4) Features with low attribute values and low level of similarity with its surroundings (Low-High Outlier), defined also as potential *spatial outliers*
- 5) Features devoid of significant autocorrelations (Not significant)

Although we selected the spatial autocorrelation analysis using Moran's I as the appropriate tool to measure the spatial distribution of Bangladeshi population, it is also important to mention the limitations of which we should be aware. First, GM-I and other global indicators do not allow differentiating enough between a random pattern and a pattern without substantial spatial variations. Second, Moran's I is conditional, related to how we define single areal units through a spatial matrix $w_{i,j}$. Different definitions of this matrix may lead to different values of spatial dependence.

Certainly, all the concerns described above have to be taken into account when interpreting the results of performed spatial analysis, but we sustain that regardless to these limitations, the local variation of the GM-I is the very useful tool for studying the local level of spatial autocorrelation, i.e. for identifying hotspots of Bangladeshi settlement and for classifying them into spatial clusters and spatial outliers.

3.3 Settlement patterns of Bangladeshis in London and in Rome

3.3.1 Overall settlement patterns

The Bangladeshis living in London and Rome represents in both cases the important proportion on the total Bangladeshi population in the context of the respective country (see Table 2). More striking geography of this group is evident in London, where of the total of 451,529 Bangladeshis presented in the United Kingdom in 2011, almost half lived in London. In 2001 this proportion was even higher (55%). In Italy the concentration of Bangladeshis in the capital city is not so elevated, but unlike London, a growing trend is notable over the observed period of time (from 21% to 26%). As for the dimension of the Bangladeshi community in the two cities, we can see that the Bangladeshi population present in London is almost ten times larger than the Rome's one, but the growth of the community between 2001 and 2011 was several times higher in Rome than in London, accounting for 680% and 144%, respectively. Since this data concerns the resident population, we assume that this huge increase can be related to the sets of immigration legislations introduced between 2001 and 2011 (Blangiardo 2009).

Geographic unit	2001	2011	Percentage change 2011/2001	Percentage of total population		Percentage of total Bangladeshis in country	
				$\boldsymbol{2001}$	$\boldsymbol{2011}$	2001	2011
London	$153,\!893$	222,127	144	2.1	2.7	54.4	49.2
United Kingdom	$283,\!063$	$451,\!529$	160	0.5	0.7		
Rome	3,124	21,248	680	0.1	0.8	21.3	26.3
Italy	$14,\!695$	$80,\!639$	549	0.0	0.1		

Table 2 Bangladeshi population in the United Kingdom (London) and in Italy (Rome), 2001 and 2011

Source: own elaboration on UK Census data 2001 and 2011, Italian Census data 2001 and 2011

Initially, for comparative purposes the indexes of dissimilarity and isolation were calculated. In this respect, we have to consider the limitations related to different source of data we are going to compare (see Chapter 3.2.1). Since the average size of areal units for Rome is higher than the size of areas selected for London, we expect that the values for indices for Rome will be slightly lower. However, considering also another trend associated with the size of population subgroups, i.e. tendency towards increased values when population subgroups are very small (Bangladeshi proportion of the total population is around 2.5% in London and less than 1% in Rome), the values of indices should tend to be higher in the case of Rome. Thus, in this way the result values should not change significantly.

Given the *ID* values at the selected levels, we can see that Bangladeshi population in both London and Rome tend to be spatially segregated, although the segregation levels seem to be fairly greater in London than in Rome (Table 3). Moreover, the indicator shows that in both cities the segregation seems to decline over the observed period, but while in London the diminution is rather irrelevant, in Rome appears to be much more substantial. Nevertheless, the changes in the index of dissimilarity might be affected by its sensitivity to changes in the composition of the population.

	% of Bangladeshis			Dissimilarity		Isolation		Corrected		
Geographical unit	in total population		in total foreign ^a population		Index (%)		Index P* (probability)		Isolation Index P*	
(number of units)										
LONDON	$\boldsymbol{2001}$	2011	2001	2011	2001	2011	2001	2011	2001	2011
Local authority (33)	2.1	2.7	7.4	6.8	60.4	58.0	0.16	0.15	0.08	0.06
Ward (628)					64.8	63.1	0.20	0.17	0.09	0.06
ROME	2001	2013	2001	2013	2001	2013	2001	2013	2001	2013
District (19)	0.1	0.1 0.9	3.2	7.1	41.2	30.5	0.00	0.01	0.03	0.02
Urban zone (155)		0.9			52.3	44.8	0.00	0.02	0.04	0.03

Table 3 Index of Dissimilarity, Lieberson's Index of Isolation P^{*} and Corrected Index of Isolation of Bangladeshis, London and Rome, 2001 and 2011.

Note: (a) Foreign population is represented by Non-White ethnic groups in the case of London and by Non-Italian population in the case of Rome.

Source:own elaboration on UK Census data 2001 and 2011, Italian Census data 2001 and Population Register data of Rome2013

A tendency towards a decreasing segregation is confirmed by the corrected isolation index (where low values indicate that the Bangladeshis are widely distributed within the city), and we can however observe that during the observed period the value of this index decreased in both cities. In summary, the spatial encapsulation is much higher for the Bangladeshis in London respect to those in Rome, and the tendencies across the observed period of time are decreasing in both of them.

To see the overall pattern with more complex measure we used the global measure of spatial autocorrelation, the Global Moran's I(GM-I). The values of GM-I in Table 4 indicates that Bangladeshis in London are much highly clustered than

Bangladeshis in Rome, and the increasing values of GM-I between 2001 and 2011 indicate that the grade of spatial association increased slightly in the two cities (all the clustering is statistically significant at the 0.001 level).

	Lon	don	Rome		
	$\boldsymbol{2001}$	2011	2001	2013	
Moran's I	0.739	0.778	0.364	0.399	
p-value	0.000	0.000	0.000	0.000	

Table 4 Global Moran's I for Bangladeshis in London and Rome, 2001 and 2011

Note: In the calculation of *GM-I* we used wards for London and urban zones for Rome as the unit of observation. *Source:* own elaboration on UK Census data 2001 and 2011, Italian Census data 2001 and Population Register data of Rome 2013

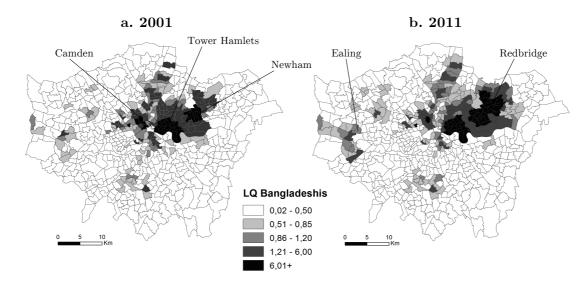
To gain better understanding of what underlies the global indices in London and in Rome reported in Table 3 and 4, we come to the point of the local perspective, to the Location Quotient (LQ) and the local measure of spatial autocorrelation, LM-I.

Segregation from a local perspective

Initially, to identify the relative concentration of Bangladeshis we use the LQ that expresses the relation between the proportion of Bangladeshis in the single areal unit and the proportion in the entire city. Successively, the local measure of spatial autocorrelation (LM-I) is applied to define more accurately the patterns of Bangladeshi settlement.

Bangladeshis in London

With the spatial illustration of LQ it is possible to confirm the fairly high segregation levels in London outlined by the global indices and in addition also to identify areas with significant relative concentrations of Bangladeshis. As shown in Map 7, the Bangladeshis are concentrated mainly in the area of Tower Hamlets and its surroundings that extends towards the Northeastern part of the city (Newham and Redbridge). In Tower Hamlets is situated a ward of the initial Bangladeshi settlement symptomatically called Spitalfields and Banglatown. In fact, within the total population of Tower Hamlets the Bangladeshis account for more than 30%, and the Bangladeshi residents in Tower Hamlets make up about 40% of the Bangladeshi population in London (ONS 2013). The second largest Bangladeshi population in London is in Newham (in 2011: 17% of the total population). High concentration of Bangladeshis is noted also in Camden, and areas extending to the Northern London. Slightly higher concentrations can be found also in the western part of Outer London, specifically in Hounslow and Ealing. However, it is clear that the concentration of Bangladeshis is limited only to specific parts of the city.



Map 7 Location quotient of Bangladeshis in London, wards, 2001 and 2011

It is important to take into account that the LQ treats each areal unit independently, thus indicating single-unit concentration. In fact, under this measure, the concentration of Bangladeshis is evident but in relatively scattered form. More clear and precise imagine of the settlement patterns gives the local measure LM-Ithat tests an areal unit in terms of its neighbors' characteristics, thus indicating clusters of areal unit concentrations. Indeed, in Map 8 we can see that when using the LM-I, two clusters of Bangladeshi settlement are defined in both 2001 and 2011.

The first, and smaller cluster is situated in southern area of Camden and between 2001 and 2011 we can observe a little reduction of the Bangladeshi presence in this location. In the \sin^{25} wards of Camden Bangladeshis represent the largest ethnic group accounting for more than 20% of non-white population (ONS 2013). The second, key cluster is related to the originate settlement area of Bangladeshi community in Tower Hamlets that in 2001 was extended only to the neighboring Newham. Ten years later, in 2011, we can observe a reinforcement of the former patterns and a clear 'spill over' into its adjacent areas, mainly to the northern Redbridge and in some extent also to the northern wards of Barking and Dagenham.

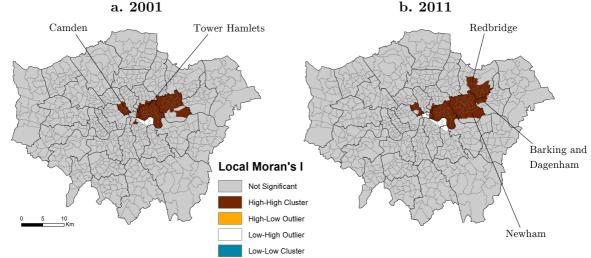
Overall, several similarities can be found within the areas with significant clusters of Bangladeshis in London. The first feature is associated with the high social

Source:own elaboration on UK Census data 2001 and 2011

 $^{^{25}}$ St Pancreas, Regent's Park, Holborn, King's Cross, Haverstock and Gospel Oak.

deprivation. Tower Hamlets is the most socially depressed borough in London and one of the worst in the country (Peach 1999), and also the new areas of Bangladeshi settlement are characterized as rather deprived areas. For instance, Newham is now the third most deprived borough in London behind Hackney and Tower Hamlets (ONS 2012). Highly deprived are also the wards in southern Redbridge where the Bangladeshis are concentrated (Redbridge Borough 2004). Another similarity lies in the fact that areas of significant Bangladeshi clusters belong to the most ethnically diverse boroughs in London, i.e. Tower Hamlets, Newham and Redbridge. Consequently, they are characterized by rather low proportion of White groups, e.g. Tower Hamlets and Newham are among the local authorities with the lowest proportion of whites in London (under 30%) (ONS 2012).

Map 8 Local Moran's I of Bangladeshis. London wards, 2001 and 2011



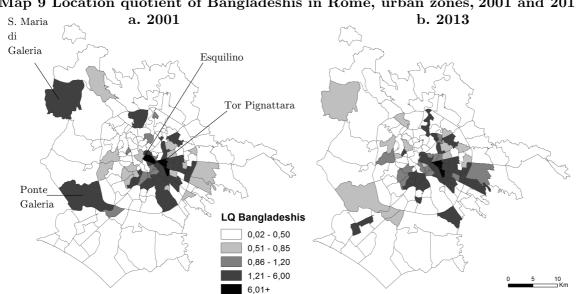
Source:own elaboration on UK Census data 2001 and 2011

Furthermore, we can speculate about the explanations concerning the direction of the expansion of Bangladeshi settlement areas between 2001 and 2011. One of the factors can originate in the 1990s, when there was an evident racial discrimination by the council in terms of allocation and the intimidation of Bangladeshis by white residents. Subsequently, the clusters of Bangladeshis can be observed mainly in the western part of Tower Hamlets. The growth of the Bangladeshi population then tended to reinforce substantially these patterns also due to the strong social closure of the community (Eade and Garbin 2002). Nevertheless, still in the 1990s, the Bangladeshis were highly segregated not only from whites but also from other ethnic minorities. This indicated that segregation of Bangladeshis did not have to be only a product of external discriminatory behaviour of the dominant society, but also of internal cultural pressures for the maintenance of ethnic and religious identity (Peach 1998). This has changed, as we can observe the succeeding spatial expansion of the Bangladeshis to the areas of high ethnic diversity. It can be assumed that both the presence of other ethnic groups, especially those with the similar cultural background such as Pakistani or Indians, and probably also the affordability of housing in these areas may in a certain way facilitate the accessibility of Bangladeshis on the housing market.

Bangladeshis in Rome

In Rome, as indicated by the global indices, the segregation and clustering levels of Bangladeshis have been not as high as in the case of London. In fact, as shown by Map 9, the spatial distribution across single urban zones seems to be more dispersed than in the case of London. Higher concentrations of Bangladeshis are evident mainly inside the Rome Beltway area, and particularly in the eastern part of the city. The highest relative concentrations of Bangladeshis are then found in the urban zones of Esquilino and Tor Pignattara, and in general, in the zones of the sixth and seventh district. Both of them are identified as multiethnic areas and places of the widespread establishment of ethnic-based business activities (predominantly Bangladeshis') (Mudu 2006).

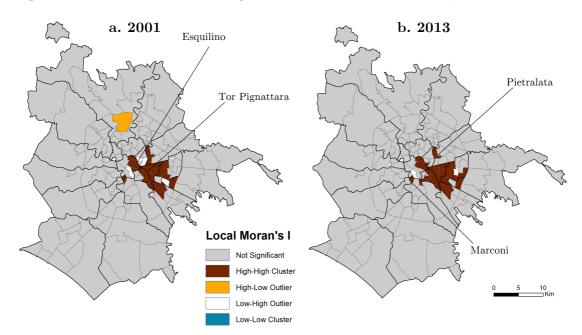
As abovementioned, we have to be cautious when interpreting the LQ values, since the high values of the quotient in certain urban zones can be due to relatively small size of district's total population (e.g. Santa Maria di Galeria or Ponte Galeria in the western part of Rome).



Map 9 Location quotient of Bangladeshis in Rome, urban zones, 2001 and 2013

Source: own elaboration on Italian Census data 2001 and Population Register data of Rome 2013

Thus, using the *LM-I*, the spatial patterns of Bangladeshis living in Rome are revealed more clearly. In Map 10 we can see that the main cluster of Bangladeshi settlement is situated in the eastern part of Rome, originating in the first district (in Esquilino and XX Settembre) and extending then to the southeast, still inside the Rome Beltway. It is evident, that the sixth district and its adjacent zones represent crucial areas of Bangladeshi settlement in Rome. In this respect we can identify a sort of 'triangle' area of Bangladeshi settlement that extends along and within the Prenestina and Casilina thoroughfares towards an eastern part of the city (Alessandrina, Centocelle, Gordiani, Tor Pignattara, Tuscolano Nord, Tuscolano Sud, Quadraro, etc.). Furthermore, small clusters of Bangladeshi settlement are identified in neighborhoods of Marconi and also in Pietralata. In 2001 an outlier was identified also in the urban zone Grotta Rossa Ovest. Overall, between 2001 and 2011 there is evident an intense consolidation of the standing areas of Bangladeshi settlement and furthermore it is possible to observe a slight broadening towards the Rome Beltway.



Map 10 Local Moran's I of Bangladeshis. Rome urban zones, 2001 and 2011

Source: own elaboration on Italian Census data 2001 and Population Register data of Rome 2013

In area Pigneto-Tor Pignattara, sometimes called Rome's *Banglatown*, the Bangladeshi population account for more than 5% of the resident population (and about 20% of all foreign residents²⁶) and represents a core of Bangladeshi settlement in Rome. Its urban transformation associated with the formation of multi-ethnic

²⁶ The foreign residents account for 18% of all residents of this urban zone (Comune di Roma 2013).

neighborhood has been described in various studies mainly referring to the presence of Bangladeshi community (Fioretti 2011; Pompeo 2011). In this context, Fioretti (2011) argues that the absence of policies and planning is mirrored in the scarce quality and general lack of public space and produced spontaneously a social and ethnic *mixité* with the abundance of proactive local organizations and social networks of immigrants.

3.3.2 Settlement patterns related to diverse housing characteristics

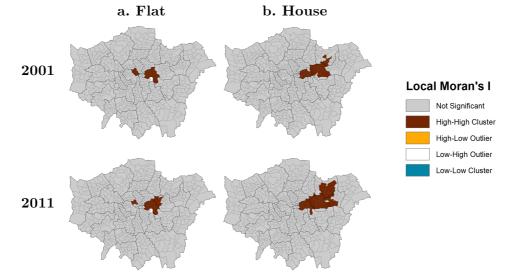
In the following paragraphs we explore the relationship between settlement patterns of Bangladeshis and the distribution of selected housing characteristics across the selected urban spaces, based on the assumption that different housing characteristics are associated with distinct settlement patters. Specifically, we explore how change settlement patterns of Bangladeshis according to type of accommodation, type of tenure, overcrowding and composition of households in London and in Rome.

Housing characteristics in London

In the following paragraphs we analyze the settlement patterns (using LM-I) of Bangladeshis living in London according to selected housing characteristics and see how they changed between 2001 and 2011. For this purpose we use the following characteristics: accommodation type (flat and house), type of tenure (owners, renters – distinguished between social²⁷ and private renters), and considered are also the overcrowded households.

Map 11 shows the clusters based on the information about the accommodation type. In London, between 2001 and 2011, the proportion of Bangladeshis living in flats has decreased from 64% to 55%, whereas the share of those living in a house has increased from 36% to 45%. We can see that the Bangladeshis living in flats are clustered predominantly in Tower Hamlets and partly in Camden, whereas those living in a house are characterized by a higher proximity and extension to the suburban areas. Since 2001 we can also observe that the cluster of flats has extended to the northern part of Newham with a small reduction in Camden. In the case of Bangladeshis occupying a house we can notice a significant extension of the cluster to the neighboring areas, Redbridge and Barking and Dagenham.

²⁷ Social rent is in the UK statistics composed of 'council rent' and 'other social rent'. In this project, we do not distinguish between these two categories, but we consider entire social rent sector.

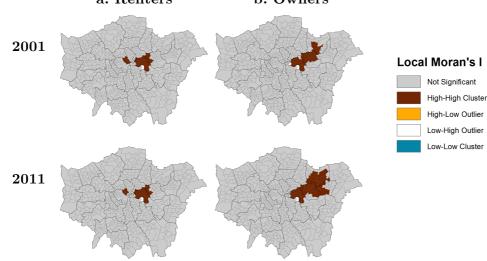


Map 11 LM-I of Bangladeshis by accommodation type, London, 2001 and 2011

Source: own elaboration on UK Census data 2001 and 2011 $\,$

These patterns are in large part associated with the availability of corresponding housing stock in the respective areas. For instance, in Tower Hamlets the elevated occurrence of flats is related to the fact that 80% of housing stock is of council property (Peach 1999). Rent levels in Tower Hamlets are equal to those in Camden and Redbridge and higher than those in Newham (Tower Hamlets Borough 2005). In Newham flats and houses are represented evenly, with about 30% of social and 30% of private renters (Newham Borough 2010). Finally, in Redbridge the prevalent accommodation type is house and three quarters of the housing stock is owner-occupied with a very low percentage of social renters (Redbridge Borough 2004).

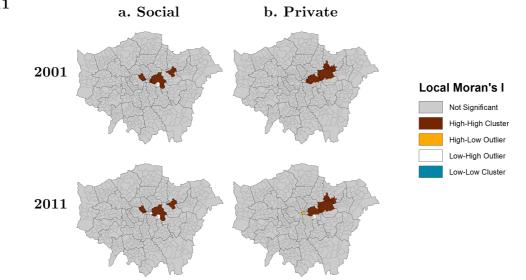
In Map 12 are shown the patterns related to tenure type, i.e. renters and owners. The majority of Bangladeshis in London lives in rent, but between 2001 and 2011, we can observe a decrease in the proportion of renters (from 74% to 69%), and an increase in the still rather low proportion of owners (from 26% to 29%). It is evident that the renters are clustered mainly in the central areas and the patterns are practically identical with the clusters of Bangladeshis living in flats. Between 2001 and 2011 this cluster remained practically unchanged. This confirms the fact that the clustering in these wards into flats is closely associated with the Bangladeshi settlement pattern of social housing, as suggested the research of Hiller (1996). The cluster of own-occupied Bangladeshis tends to extend more to the northeast of the city towards Outer London.



Map 12 *LM-I* of Bangladeshis by tenure type, London, 2001 and 2011 a. Renters b. Owners

Source:own elaboration on UK Census data 2001 and 2011

Since in London the social housing represents a significant part of the available housing stock (25%)(ONS 2013), we consider relevant to explore if it is possible to find any differences among Bangladeshi renters related to settlement patterns separately for social and private renters. Although the majority of Bangladeshi renters in London live in social housing, in the observed period has increased the share of Bangladeshi private renters (from 25% to 30%). In fact, Map 13 shows distinct patterns of settlement for these two groups.



Map 13 *LM-I* of Bangladeshis by social and private renters, London, 2001 and 2011 a. Social b. Private

Source:own elaboration on UK Census data 2001 and 2011

While the settlement patterns of Bangladeshis living in social housing is represented by three clusters in Camden, Tower Hamlets and in the northeastern part of Newham, the Bangladeshi private renters are clustered towards Outer London, in the northern parts of Tower Hamlets and Newham, and in the southern Redbridge. In 2011 results as a significant also a small cluster of Bangladeshis in the western part of the City of London. We can observe, that unlike the clusters of private renters, clusters of Bangladeshis living in social housing are practically identical to clusters of Bangladeshis living in flats. This aspect will be further described in the following paragraphs.

Despite the proportion of Bangladeshis living in households with more than 1.5 persons per room decreased between 2001 and 2011 (from 19% to 8%), the Bangladeshis have still one of the highest rates of overcrowding (Peach 2006). For this reason the spatial distribution related to the households with more than 1.5 persons per room is also explored.

As shown in Map 14 at the beginning of the observed period, in 2001, the overcrowded households were spatially concentrated mainly in the area of Tower Hamlets, Camden and in the northern area of the adjacent Newham. Until 2011 there had been an expansion of this area, mostly on the eastern part of the existing cluster, following the expansion of the Bangladeshi settlement areas. The clusters of overcrowded households show that it is likely that the overcrowding is more associated with living in flats and consequently in social housing. In fact, the areas of the Bangladeshi spatial 'expansion' are not significantly clustered according to this indicator. However, in a coherence with previous research (Peach 1999, Propa 2007) we assume that the incidence of overcrowding households originates in the overall cultural values and traditions of Bangladeshi community and particularly in the relating characteristics, such as higher propensity to live in extended families, large size of households, high rates of unemployment or very low activity rates of women (Peach 1999, 2006).

Map 14 *LM-I* of Bangladeshi overcrowded households, London, 2001 and 2011 a. 2001 b. 2011

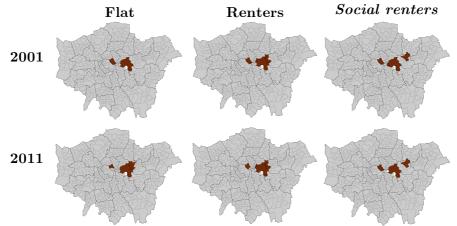


Source:own elaboration on UK Census data 2001 and 2011

As we could see in Maps 11, 12 and 13, it is possible to observe several variations within the patterns of Bangladeshi settlement according to the accommodation and tenure type. Nevertheless, some of them are associated with similar residential patterns, and in this context we define two types of residential patterns of Bangladeshis in London.

The first type is based on the assumed existence of spatial association between (1) Bangladeshis living in flats, (2) those who are renters in general and more specifically (3) those who are social renters. In both selected years 2001 and 2011, there was a notable tendency of these groups to be clustered primarily in the central areas of London, in Tower Hamlets and the southern part of Camden (Map 15).

Map 15 LM-I of Bangladeshis by flat, renters and social renters, London, 2001 and 2011



Source: own elaboration on UK Census data 2001 and 2011

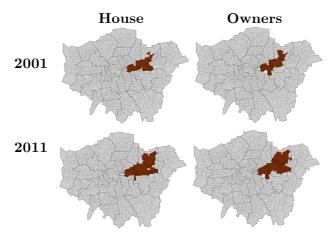
Moreover, we can see that between 2001 and 2011 there was only a tiny change in the size of spatial clusters for those living in flats and in rent. While in the case of Bangladeshis who live in flats, we registered a little expansion to the area of Newham and also, following the overall Bangladeshi settlement patterns, a reduction of their presence in Camden, settlement patterns of Bangladeshis who live in rent remained practically unchanged. This can indicates more or less stable housing stock situation.

It is important to highlight that the presence in flats in London is strongly associated with the Bangladeshi dependence on social housing (63% in 2002 and 49% in 2011)(ONS 2013), and the spatial clusters related to these two characteristics tend to be very similar. However, the social housing in London is related to rather negative characteristics, such as smaller homes, lower income, higher unemployment

rates, higher poverty and higher overcrowding rates (Greater London Authority 2014). Thus, the presence of Bangladeshi ethnic group in the rather socially deprived areas seems to be clearer.

The second type is represented by (1) Bangladeshis living in a house and (2) those who are owners of their accommodation. As shows map 16, these two groups are clustered not only in the original area of docklands but rather extend towards the northeastern part of London (Newham, Redbridge, and Barking and Dagenham), however, still connected to the core of the Bangladeshi settlement. Noticeable is also a substantial spatial enlargement in the period between 2001 and 2011.

Map 16 LM-I of Bangladeshis by house and owners, London, 2001 and 2011



Source:own elaboration on UK Census data 2001 and 2011

To explain the spatial similarity between those who live in a house and those who are owners, we assume that Bangladeshis who can afford to buy an own accommodation, invest into a house instead of a flat even if it means to move in areas where this type of housing is relatively affordable (Redbridge Borough 2004). Overall, the proportion of Bangladeshi owners is significantly lower than in white population, but there is evident an increase of 5% between 2001 and 2011 (ONS 2012).

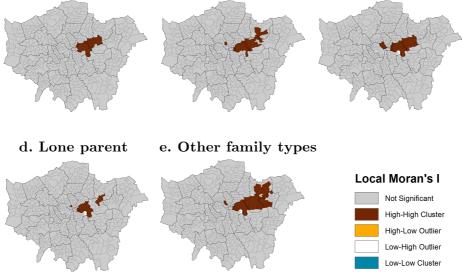
Although the Bangladeshis are highly segregated ethnic group, we show that if considering different perspective (of selected housing characteristics), different patterns that are not visible when looking at the overall pattern of the settlement can be found. Furthermore, in this way it is possible to affirm the relationship between housing characteristics and spatial distribution of the Bangladeshis in London. As abovementioned, to a large extend the residential patterns are associated with the availability of the housing stock, but they might also indicate the direction given by the residential preferences. For this purpose, we explore the settlement patterns according to the composition of Bangladeshi households.

Household composition in London

As suggest the existing literature, the household composition is an important aspect to evaluate the housing preferences (Clark and Dieleman 1996; Clark *et al.* 1997). Furthermore, the residential preferences are linked to positions and events in the family life cycle (Sabater and Finney 2010). To identify dynamics of ethnic segregation relating to the residential preferences, we investigate to what extend the settlement patterns of Bangladeshis differ according to specific type of household. For this purpose we use five types of households: (1) one person households, (2) one married couple without children, (3) one married couple with children, (4) lone parent households, and (5) other family types (e.g. two or more families). For the distribution of Bangladeshis in these household types, see Chapter 5.2 (Page 147). The clusters associated with these types are illustrated in Map 17.

We can see that there is a sign of a differentiation in Bangladeshi settlement patterns according to diverse household types. The propensity to choose more suburban areas is evident for households composed of one couple, one nuclear family and in particular for other family types. On the other hand, a tendency to settle in central areas of the city is notable in the case of households of one person and lone parent. This suggests the tendencies of family suburbanization, as described by Sabater and Finney (2010).

Map 17 LM-I of Bangladeshis by household composition, London, 2011a. One personb. One couple onlyc. Couple with children



Source: own elaboration on UK Census data 2001 and 2011

The distribution of the latter group is likely be associated with the higher presence in social housing (ONS 2013), or in some way can be affected also by higher 'need' and willing to stay close to the other Bangladeshi members (Propa 2007).

Moreover, it is interesting to note that in the area of Camden are significantly clustered all types of households except for one-person households (Map 17a). Also in this case, is might be related to the fact that the presence of Bangladeshis concentrated into the social housing in the southern wards, arranging an affordable housing mainly for lower income families (ONS 2013). For instance, in wards Haverstock, Holborn and St Pancreas more than 85% of the Bangladeshis live in social rent.

Household composition in Rome

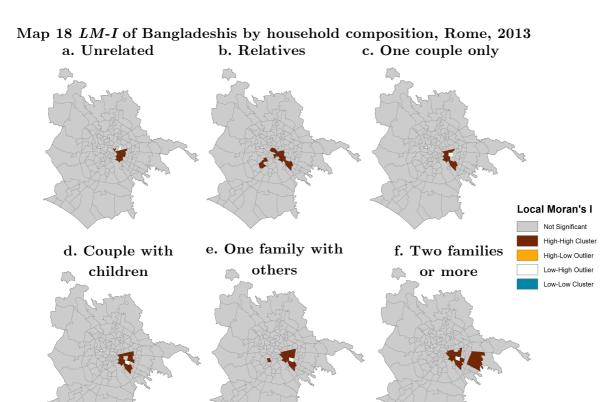
The analysis of spatial patterns related to different types of Bangladeshi households in Rome does not show so significant differentiations as in the case of London. We assume that it can be explained by the fact, that only recently, there has been the fall in the employment visas and the rise in family reunion visas for Bangladeshis in Italy (Rahman and Kabir 2012), indicating a change from single migration to family immigration and settlement. In practice, the predominantly single and male Bangladeshi migrants that until then lived in predominantly all-male households with other Bangladeshis (Yeoh *et al.* 2002) have started to bring their wives and children to their new homes in Rome and consequently the new types of family households started to be formed. We assume that this change will be reflected more and more in the change of composition of Bangladeshi households in Rome.

In 2013, the majority of Bangladeshis lived in multi-person cohabitation, in households without a family nucleus (64%), of which 93% lived with persons without any kinship and the remaining 7% with relatives. About 3% lived in a households composed of only one couple (without children) and 19% in households of couple with children. In households that contained one family nucleus and other persons lived almost 10% and only little more than 1% lived in households composed of two or more families.

As we can see, the multi-person cohabitation still prevails among the Bangladeshi community in Rome, indicating that the Bangladeshi immigration to Rome is rather recent phenomenon and the transformation from single male labour migration to family and settlement migration is still at its very beginning.

In Map 18 we can see that the households composed of only unrelated persons constitute cluster in the most central area of the city.

Households of relatives (including cousins of first to forth grade, uncles, etc.) are clustered along the Casilina thoroughfare and also in the urban zones of fifteenth district (Marconi, Portuense and Pian Due Torri). Similar pattern is followed in the case of households composed by only one Bangladeshi couple. In the 'triangle' area of Bangladeshi settlement are then significant clusters of households comprising one nuclear family, either living alone or cohabitating with other persons. A tendency to settle in more suburban areas is observed in the case of households composed by two or more nuclear families.



Source: own elaboration on Population Register data of Rome 2013

In this context, we can found a similarity between London's households of 'other family types' and Rome's households of 'two or more nuclear families', in both cases this 'extended' household type tend to expanse towards the suburban areas.

At this point, we can conclude that although being highly spatially segregated, under the overall settlement patterns of the Bangladeshis it is possible to identify hidden patterns connected to the different housing characteristics. The analysis shows that the observed suburban emphasis as well as intense local consolidation is largely due to the dependency on social housing (in the case of London), availability of affordable housing, the channeling effects of chain migration and the desire for proximity to other Bangladeshis (in the case of Rome).

4. Bangladeshis in Rome

4.1 Original survey of Bangladeshis in Rome

An important part of this research project represents undoubtedly a small sample survey among citizens of Bangladesh in Rome 2013 (BSS).

The survey was conducted from July to September 2013, collecting 314 faceto-face interviews with citizens of Bangladesh that at the moment of the interview lived in the area of the Municipality²⁸ of Rome. The target population of the sample included only citizens of Bangladesh or those with a dual citizenship aged 18 and older. Unlike the official statistics, the survey provides detailed information not only about the regular component, but it captures also the presence and profiles of the irregular Bangladeshis living in Rome.

The principal objective of the BSS was to provide an introductive database of original statistical data on the Bangladeshis living in Rome that would be useful for acquiring new detailed information about this rapidly increasing community, about its socio-demographic and economic characteristics, its migration model, its behaviour and living conditions in the Italian capital city. In fact, the initiative itself that led to the realization of the survey resulted primarily from a lack of adequate statistical data provided by the Italian official statistics that do not allow more detailed analysis of the profile of the Bangladeshis in Rome.

The preparation of the BSS initiated at the beginning of January 2013 and can be divided in five following phases: (1) construction of the questionnaire and its translation in Bengali; (2) exploration and selection of aggregation centres; (3) recruitment and training of native Bangladeshi interviewers; (4) a pilot study to test the efficacy of the questionnaire and its right comprehension by interviewers; and finally, (5) the fieldwork itself, i.e. realization of 314 face-to-face interviews.

Centre Sampling Technique

The sample of the BSS was obtained using the "Centre Sampling Technique in Foreign Migration Surveys" (hereafter CS) developed by Blangiardo (Blangiardo 1996). As the authors of this method indicate, for the purpose of the migration studies, the official data have two important limits: firstly, they capture only the regular component of migration and secondly, information they provide is rather general, therefore missing many specific (and perhaps relevant) characteristics

²⁸ The study area where the interviews were carried out includes 19 old districts and 155 urban zones.

(Baio *et al.* 2008, 2011). In fact, unlike the official statistics data the CS technique considers the entire population, both regular and irregular component, and also allows collecting more specific and wider set of information. It allows performing a statistical survey of a group of individuals that are present in a certain population in the case when there is no complete list of its members. Basically, the idea of this technique relies on the fact that all migrants residing in one area visit some of the local meeting points alias the centres of aggregation for migrants, which exist in the area. Once identified a sufficiently wide and heterogeneous set of these points, ten centres were selected and then the interviews among those that visit the proper centre were randomly selected. The interviewees were also asked to list all the centres that they usually visit. In this way, was possible to calculate the weights.

Selection of reference centres and calculation of the weights

The principle of the CS technique is that with reference to a selected local area, the universe of foreign citizens (in this case the Bangladeshi citizens) present there at the time of the survey is made up of a list of N statistical units. Each of these individuals is expected to frequent K aggregation centres or gathering places located in that area (i.e. places of worship, specialized shops, places of meeting, etc.).

When the questionnaires are filled, the interviewed Bangladeshis are given a profile according to the centres they visit. It means that all the respondents who visit the same centres are given the same profiles. The individual probability of inclusion in the sample has been determined: (1) directly on the number of selected centres the respondent actually visits, and (2) inversely on the number of respondents who visit that centre. With respect to the K centres, the profile of any individual in the overall population is characterized by the vector $\mathbf{u}(i) = \left[u_1(i), u_2(i), \dots, u_K(i)\right]$, where $u_k(i) = 1$ if the *i*th individual has regular access to centre k, and $u_k(i) = 0$ if does not. The CS individual probability of inclusion for the *i*th individual in the universe can be calculated as:

$$p(i) = \frac{1}{K} \sum_{k=1}^{K} \frac{1}{N_k} u_k(i)$$
(13)

where N_k is the total number of individuals in the universe who keep relationships with centre k. Thus, the knowledge of the profile $\mathbf{u}(i)$ has been essential for the identification of the probability of inclusion (13). Although it has been not possible to know this profile *ex-ante*, this technique enabled us to collect the information about centres for each interviewed individual, by adding a specific part to the questionnaire. Afterwards, we obtained the vectors u(r), for r=1,2,...,n units.

Subsequently, the sample that has been collected by CS technique is originally biased and must be transformed to an unbiased sample by means of appropriate weights to be associated with each sample unit. In short, the more centres an individual from the population visits, the larger is its inclusion probability of being interviewed and the lower is the weight value. In this way, every respondent was associated *ex-post* with a weight. This *ex-post* weight depends then on the number of individuals who visit the centre. The larger and more visited the centre is, the smaller is the inclusion probability and consequently the weight value for this individual is higher.

In a representative sample, $N(\mathbf{u})$ represents the number of individuals in the universe with a given profile $\mathbf{u}=(u_1,u_2,...,u_K)$, that is simply a sequence of the values 0 and 1, in terms of centres regularly visited. According to the CS scheme, *n* sample units, suitably weighted, should give a sample frequency distribution that is coherent with the population distribution:

$$\pi(\mathbf{u}) = \frac{N(\mathbf{u})}{N} \tag{14}$$

It is essential, that each sample unit that is associated with a profile \mathbf{u} is weighted by a coefficient defined as the ratio:

$$w(\mathbf{u}) = \frac{\pi(\mathbf{u})}{\hat{\pi}(\mathbf{u})} = \frac{N(\mathbf{u}) / N}{n(\mathbf{u}) / n}$$
(15)

where $n(\mathbf{u})$ is the number of individuals with profile \mathbf{u} , and $\hat{\pi}(\mathbf{u})$ is the sample proportion of these individuals. Since both n and N are not known in this case, the proportion $\pi(\mathbf{u})$ must be estimated.

Suppose there are $N(\mathbf{u})$ individuals characterized by the given profile \mathbf{u} in the study population. The probability of selecting randomly one individual possessing such a profile from those attached to the *k*th centre can be defined as:

$$p_{k}(\mathbf{u}) = \begin{cases} N(\mathbf{u}) / N_{k} & \text{if } u_{k} = 1 \\ 0 & \text{if } u_{k} = 0 \end{cases}$$
(16)

If all the n units sampled in K centres are considered, the expected absolute frequency of the units with profile **u** is expressed by:

$$\mathbf{E}\left[n(\mathbf{u})\right] = \sum_{k=1}^{K} n_k \frac{N(\mathbf{u})}{N_k} u_k \tag{17}$$

The corresponding expected sample proportion is then:

$$\mathbf{E}\left[\hat{\boldsymbol{\pi}}(\mathbf{u})\right] = \mathbf{E}\left[\frac{n(\mathbf{u})}{n}\right] = \sum_{k=1}^{K} \frac{n_k}{n} \frac{N(\mathbf{u})}{N_k} u_k$$
(18)

Even if the $N(\mathbf{u})$ and N_k are unknown, it can be easily proven that:

$$\operatorname{Var}\left[\hat{\pi}(\mathbf{u})\right] = \frac{1}{n^2} \sum_{k=1}^{K} n_k \frac{N(\mathbf{u})}{N_k} \left(1 - \frac{N(\mathbf{u})}{N_k}\right) u_k \tag{19}$$

that goes to 0 for the large *n*. Thus, if the sample is large enough, it is possible to assume that the value of sample proportion $\hat{\pi}(\mathbf{u})$ can be used as an estimation of its unknown expected value, that is:

$$\hat{\pi}(\mathbf{u}) = \frac{n(\mathbf{u})}{n} = \sum_{k=1}^{K} \frac{n_k}{n} \frac{N(\mathbf{u})}{N_k} u_k$$
(20)

Considering (4) together with $f_k = N_k/N$ it is achieved:

$$\pi(\mathbf{u}) = \frac{\hat{\pi}(\mathbf{u})}{\sum_{k=1}^{K} \frac{(n_k / n)u_k}{f_k}}$$
(21)

Therefore, if we know the total number of selected units n and the sample distribution of $n(\mathbf{u})$ and the f_k (relative frequencies with which the N units who form the universe are distributed among the centres, the final formula for weight that is the same for all individuals of profile the \mathbf{u} is:

$$w(\mathbf{u}) = \frac{\pi(\mathbf{u})}{\hat{\pi}(\mathbf{u})} = \left(\sum_{k=1}^{K} \frac{(n_k / n)u_k}{f_k}\right)$$
(22)

Basically, the assumption of the CS scheme is that the sample is adequately numerous and the relative importance (in terms of popularity/attendance) of each centre. Subsequently, the selection of the *n* sample units is done following the two steps: (1) random and independent selection of one of the *K* centres (the probability is equal to 1/K; and (2) random and independent selection of one of the N_k units attending the selected centre, each with constant probability to being selected equal to $1/N_k$. Similarly, the number of individuals sampled in each centre is a binomial random variable (for s=0,1,...,n):

$$\Pr(n_k = s) = \frac{n!}{(n-s)!s!} \left(\frac{1}{K}\right)^s \left(\frac{K-1}{K}\right)^{(n-s)}$$
(23)

with the mean $\operatorname{E}\left[n_{k}\right] = \frac{n}{K}$ and the variance $\operatorname{Var}\left[n_{k}\right] = \frac{n\left(K-1\right)}{K^{2}}$

If the *n* sample is divided among *K* centres proportionally to the attraction each of centres exerts on the population. The criterion of direct proportionality is then used with respect to the ratios $f_k = N_k / N$, and consequently:

$$n_k = n \frac{f_k}{\sum_{k=1}^{K} f_k}$$
(24)

It is important to take into account that each individual can be attached to more than one centre, since $\sum_{k} N_{k} > N$. In this way the sample units are assigned to each centre and the computation of the weights $w(\mathbf{u})$ is simplified. By the combination of (23) and (24) and defining for simplicity $f^{*} = \sum_{k} f_{k}$, it is obtained:

$$w(\mathbf{u}) = \frac{f^*}{\sum_{k=1}^{K} u_k} \tag{25}$$

Therefore, if the *n* individuals are allocated to the *K* centres proportionally to the values of f_k 's, the values of weights for each profile **u** vary only according to the number of non-null elements in vector **u** $\sum_{k=1}^{K} u_k$.

Questionnaire

The final form of the BSS questionnaire has been a result of complex exploration of different sources and its additional adjustments to meet as much as possible requirements of the objectives of this research. Initially, the main areas of the interest were defined and in consistency with that single questions were formulated. To achieve comparability between the results of the survey and the results of the UK Censuses, adjusted version of few selected questions from the questionnaire of the UK Census 2011 were used. This is referred especially to the questions concerning housing conditions and migration history. As inspirations were also considered other foreign population surveys that have been recently realized in Italy recently (Blangiardo 2011, 2012; Conti and Strozza 2006; De Filippo and Strozza 2012).

Principally, the survey questionnaire was designed to obtain information related to the wide spectrum of Bangladeshi immigrants' characteristics such as: (1) *individual characteristics* (i.e. gender, date of birth, district of origin, citizenship, etc.); (2) *family* (i.e. marital status, number of children and siblings, dependency and care of parents, where live family members, etc.); (3) *housing conditions* (i.e. type of accommodation, number of rooms and bedrooms, accommodation equipment, etc.); (4) *education and work* (i.e. highest qualification, employment situation before

leaving Bangladesh, current employment condition, personal and family income end expenses, etc.); (5) *migration characteristics* (i.e. date of arrival in Italy and in Rome, main reason for coming to Rome, intended length of stay, etc.); and (6) *social network* (i.e. role of different channels of social network after the arrival, when looking for job or for the accommodation, etc.).

Subsequently, the final version of the structured questionnaire was translated into Bengali, the mother language of interviewees, and then back translated by an independent translator into the original questionnaire version in English. The backtranslation process is an essential step for identifying linguistic differences that could reduce international comparability (Behling and Law 2000). In this way, possible translation problems that were partly identified through the back-translations were carefully adjusted. The English version of survey questionnaire is found in Appendix 1.

Selection of reference centres

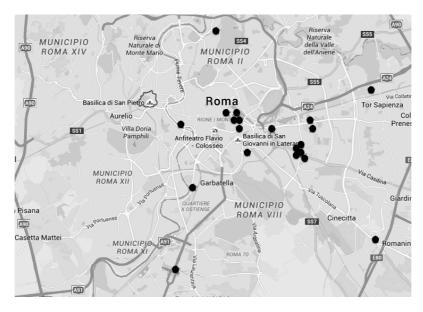
In the preliminary analysis was identified the list of centres of aggregation that represented a set of heterogeneous places that almost all the Bangladeshis in Rome were likely to have visited at least once. Following this opening in-depth exploration of the eventual centres, 11 different types of centres of aggregation were defined and the information about the attendance intensity in each centre was explored. Table 5 shows the final distribution of the interviews according to the specific type of the reference centre. The majority of interviews took place on open space places where almost 20% of respondents were interviewed, e.g. Vittorio Emanuele square, Termini station etc. The markets and the places of worship then represent respectively 18% and 15% from all interviews. The position of all reference places is then displayed in Figure 3.

Place of interview	Freq	%
Centres that offer the assistance and services (public offices, municipality, hospitality centres, etc.)	26	8.3
Italian language courses for foreigners (schools, associations, municipalities, etc.)	26	8.4
Mosques, churches	46	14.8
Ethnic shops (kebab, food stores, etc.)	11	3.5
Employment service centres or agencies	12	3.7
Service centres (International phonecenter, Western Union Money Transfer, Internet point, etc.)	41	13.0
Markets	57	18.2
Shopping centres	10	3.2
Cultural associations or centres	9	2.8
Places of entertainment (pubs, restaurants, discotheques, etc.)	14	4.6
Open spaces (squares, stations, parks, etc.)	62	19.7
Total	314	100.0

Table 5 Centres of aggregation and number of interviews in the BSS, Rome, 2013

Source: own elaboration on the BSS 2013

Figure 3 Location of centres of aggregation in the BSS, Rome, 2013



Source: own elaboration on the BSS 2013 $\,$

Face-to-face interviews

Five native Bangladeshis with a good knowledge of Italian language were recruited for this research project. They were trained to ensure that the interviewers had understood all the questions in the questionnaire and were able to conduct the survey competently. Afterwards, trained interviewers were sent to 11 selected types of centres in determined days and hours based on the ex-ante information about the attendance intensity.

Before the actual fieldwork of the survey five pilot interviews were carried out (all of them under my supervision), as a first test of the questionnaire in respect of its content. One thing became particularly clear during the pilot interviews - the scheme of income question did not work out in practice. In the original version of the questionnaire the respondents were asked to provide the exact value of their average monthly income, but since all pilot interviewees refused to provide this information, an open question was converted to diverse income categories.

Figure 4 One of the pilot interviews in the BSS, Rome, 2013



Source: own photo, captured on September 14, 2013

The fieldwork was then carried out over the period of 15 weeks; it started in July 2013 and ended at the end of September 2013. Overall, 314 detailed structured face-to-face interviews with citizens of Bangladesh, aged 18 and older, were collected. Originally, there were 315 interviews, but during the loading of questionnaires into an electronic database, one record was eliminated because of too many responses were missing. The response rate of the BSS was more than satisfying, reaching the value of 96%. Fifteen persons refused to go through the interview, mainly because of the lack of time (exactly twelve of them, three persons did not indicate the reason).

4.2 Bangladeshis in Rome: results of the survey

In this chapter we present the most important outcomes from the descriptive analysis based on the results of an original small sample survey of Bangladeshi citizens (BSS) that at the moment of the interview were aged 18 years or older and lived in the Municipality of Rome. As abovementioned, the final sample was composed of 314 citizens of Bangladesh and the questionnaire covered a wide range of migrant's characteristics including socio-demographic background, family, educational and employment situation, housing condition and migration history. Nevertheless, due to relatively small size of the sample it is important to emphasize that the information provided by the Bangladeshi respondents need to be considered very carefully.

4.2.1 Socio-demographic characteristics

The survey results reveal Bangladeshi interviewees as a relatively young and gender asymmetrical immigrant group. As shown in Table 6, the weighted sample of 314 citizens of Bangladesh is composed of 261 males (83%) and 53 females (17%). The substantial prevalence of males in the sample corresponds roughly with the Population Register's data²⁹. In fact, one of the interesting aspects of this community in Rome is its gender structure that is characterized by overwhelming majority of males and with that related occurrence of relevant gender differences. Nevertheless, it is important to highlight that this striking gender imbalance caused by the female component must be also taken into account through the subsequent examinations and assessments.

The average age of the Bangladeshi interviewees is 32.4 years, differing considerably by gender: 33.4 for males and 27.8 for females. Slightly older age profile of men respect to women is evident also from the distribution in various age groups, i.e. nearly 66% of men are registered in age groups over 30 years. On the other hand, women are overwhelmingly present (75%) in age groups inferior to 30 years.

²⁹ According to the Population Register data, on 31.12.2013 the proportion of male and female component was 77.7% and 22.3%, respectively (ISTAT 2013).

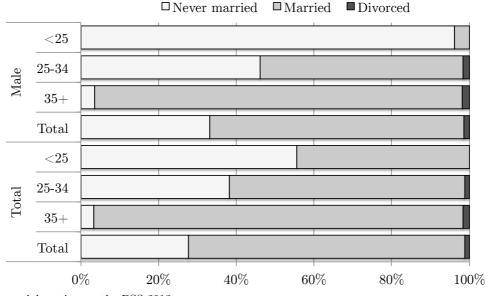
Male	Female	Total
261	53	314
83.1	16.9	100.0
10.0	35.8	14.3
24.5	39.6	27.1
23.4	9.4	21.0
24.1	7.5	21.3
18.0	7.5	16.2
100	100	100
33.0	26.5	32.0
33.4	27.8	32.4
21.4	20.6	22.3
33.3	-	27.7
65.5	100.0	71.3
1.1	-	1.0
100	100	100
	$\begin{array}{c} 261 \\ 83.1 \\ 10.0 \\ 24.5 \\ 23.4 \\ 24.1 \\ 18.0 \\ 100 \\ 33.0 \\ 33.4 \\ 21.4 \\ 33.3 \\ 65.5 \\ 1.1 \end{array}$	$\begin{array}{cccc} 261 & 53 \\ 83.1 & 16.9 \\ \hline \\ 10.0 & 35.8 \\ 24.5 & 39.6 \\ 23.4 & 9.4 \\ 24.1 & 7.5 \\ 18.0 & 7.5 \\ \hline \\ 100 & 100 \\ 33.0 & 26.5 \\ 33.4 & 27.8 \\ 21.4 & 20.6 \\ \hline \\ 33.3 & - \\ 65.5 & 100.0 \\ \hline \\ 1.1 & - \\ \end{array}$

Table 6 Bangladeshi respondents by gender and principal demographiccharacteristics, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

The marital status structure shows that 71% of the Bangladeshi respondents are married, 28% have never been married and only 1% recorded themselves as divorced. Rather insignificant presence of the latter group may be related to the fact that 97% of the sample is Muslims and it is well known that the divorce in the religion of Islam, in compliance with its cultural traditions, is not to be found very frequently. Still, the majority of the sample is married having their families either present with them in Rome or remained in Bangladesh. Also here can be found relevant gender differences. While one-third of Bangladeshi males have never been married, there are no unmarried women present in the sample. All female respondents are in a marital relationship. This homogeneity concerning the marital status is very likely associated with their rather low proportion in the sample, but may be explained partially as a consequence of the fact that quite high proportion of Bangladeshi women has come in Italy as a 'family unification migrant', i.e. they came to join the husband who had arrived as a first member of the family and had been already settled there for some time. The Figure 5 shows the Bangladeshi respondents by marital status and main age groups only for the male component and the total since all of interviewed Bangladeshi women are married.

Figure 5 Bangladeshi respondents by marital status and main age groups, Rome, 2013. Percentage values



Source: own elaboration on the BSS 2013

As one would expected, the share of never married Bangladeshis increases with age, with about 96% of males in the age group inferior to 24 and only 4% among those aged 35 years and older.

One of key determinants of a variety of immigrants' characteristics is undoubtedly the duration of residence in a place of new settlement. As we can see in Table 7, the survey shows that the average duration of residence for all interviewees is 6.5 years with male respondents present in Rome in average 1.2 years longer than females.

Duration of residence (in years)	Male	Female	Total
<2	8.8	11.5	9.2
2-4	34.7	38.5	35.4
5-9	35.9	36.5	36.0
10 +	20.6	13.5	19.4
Totale	100	100	100
Mean duration	6.7	5.5	6.5
C.V. (%)	71.6	70.7	71.8

Table 7 Bangladeshi respondents by duration of residence in Rome and gender,Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

However, we will see later in this chapter that many individual features of Bangladeshi interviewees differ remarkably when time of presence in Rome is taken into consideration.

4.2.2 Origin of Bangladeshis in Rome

Information on the place of the origin provides further detail on the diversity or homogeneity within the sample population and also suggests the functioning of migratory networks and consequently the size of the effect of the chain migration.

With the survey sample technique we obtained the sample that contains people originated from distinct areas of the country of origin. In Table 8 are shown the data of the BSS and of the Population Register Data according to the place of birth of the respective Bangladeshi population.

Table 8 Bangladeshi respondents by division of residence at birth according to Population Register data³⁰ and the BSS, Rome, 2013. Absolute and percentage values

Division of residence at	Population I	Register	BSS	
birth	Freq	%	Freq	%
Dhaka	9,142	56.1	162	51.6
Chittagong	$5,\!147$	31.6	85	27.1
Barisal	676	4.2	32	10.2
Khulna	394	2.4	18	5.7
Sylhet	508	3.1	10	3.2
Rajshahi	322	2.0	6	1.9
Rangpur	84	0.5	1	0.3
Not specified	13	0.1	-	-
Total	$16,\!286$	100	314	100

Source: own elaboration on the BSS 2013 and Population Register data of Rome 2013

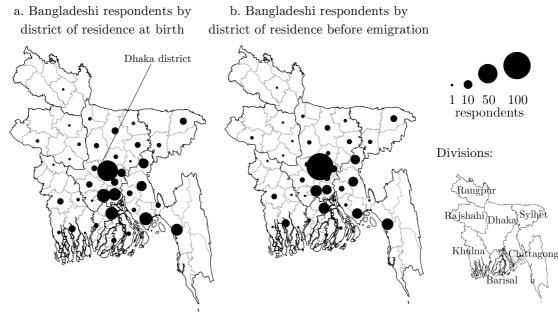
In fact, according to both survey and official data, the majority of Bangladeshis in Rome were born in Dhaka division (more than 50%), followed by those born in divisions of Chittagong (nearly 30%) and Barisal. It is interesting to underline that the divisions of Dhaka and Chittagong represent two areas of Bangladesh with the highest proportion of the country population, 32% and 19%, respectively (IPUMS 2011). While in London the overwhelming majority of Bangladeshis is originated in the division of Sylhet (Gardner 1993), the origin of Bangladeshis in Rome is apparently more heterogeneous, but with more than half of Bangladeshis coming from the division of Dhaka. This increased proportion of

 $^{^{30}}$ Population Register Data is related only to the Bangladeshis who were born in Bangladesh and thus it is possible to identify the division of residence of birth.

Bangladeshi immigrants from Dhaka (in Rome) and Sylhet (in London) may mirror the presence of migration flows driven by the effect of the chain migration (one of the most distinctive features of Bangladeshi migration process).

The survey questionnaire included the questions both on the district in Bangladesh where the respondent was born and on the district of residence before the respondent's emigration. Map 19 shows the differences between the spatial distributions of respondents according to the district of origin and the district of residence before leaving Bangladesh. Hence, it is possible to observe higher proportion of those residing in Dhaka district before the emigration respect to those who were born in this district. In fact, the majority of all interviewees were born in the division of Dhaka (52%) (Map 19a), but almost 60% of all respondents indicate this division as the place of their residence before leaving Bangladesh (Map 19b).

Map 19 Bangladeshi respondents by district and division (a) at birth and (b) residence before emigration, Bangladesh, 2013. Absolute values



Source: own elaboration on the BSS 2013 $\,$

These variations are very likely an effect of internal migrations in Bangladesh, heading mainly towards the area of the capital city. Though, 96% of those who moved away from the district where they were born moved to the metropolitan area of Dhaka that offer more labour opportunities than primarily rural areas of the rest of the country.

4.2.3 Area of residence in Rome

Together with the area of origin, it is also interesting to study the residential location of Bangladeshi immigrants in the area of Rome. Overall, the interviewees of the survey reported to have the place of residence in 18 districts (from the total of 19 districts). In Table 9 we can see the distribution among the single municipalities of Rome. According to the BSS, the majority of the Bangladeshis in Rome live in the areas of the sixth, the first and the tenth districts (in total over 50%).

District	BSS	District	BSS
I (Centro Storio)	20.7	XI (Appia Antica)	-
II (Parioli)	1.3	XII (EUR)	0.3
III (Nomentano-San Lorenzo)	0.6	XIII (Ostia)	0.3
IV (Monte Sacro)	0.6	XV (Arvalia)	2.9
V (Tiburtina)	2.5	XVI (Monteverde)	6.0
VI (Prenestino)	21.0	XVII (Prati)	1.9
VII (Centocelle)	10.3	XVIII (Aurelia)	1.9
VIII (delle Torri)	6.9	XIX (Montemario)	6.1
IX (San Giovanni)	3.5	XX (Cassia Flaminia)	1.3
X (Cinecittà)	11.8	All districts	100

Table 9 Bangladeshi respondents by the district of residence in Rome, 2013.Percentage values

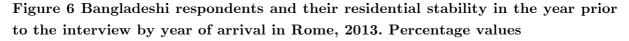
Source: own elaboration on the BSS 2013 $\,$

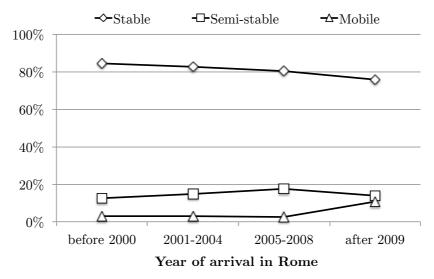
The comparison with the official data would be rather complicated in this case, given the fact that the BSS data includes also the irregular component, and rather small size of the sample dissuade us from a comparison between the official statistics and the regular part of the sample.

Residential stability

On the basis of the question on the respondents' residence one year ago, we are able to assess the residential stability of Bangladeshi immigrants. Residential stability gives us information of how stable are the Bangladeshis that live in Rome. We define 'stable' inhabitants as those who lived at a same address respect one year prior to the moment of the survey 2013, the 'semi-stable' inhabitants as those who lived at a different address in Rome, but within the same Municipality respect one year prior to the survey (they moved only within the area of municipality where had lived before), and finally the 'mobile' inhabitants indicates those who lived at a different address outside of Rome (in another Italian city, in Bangladesh, etc.) respect one year prior to the survey. In this context, introductive information can provide the data on how many times the Bangladeshis have changed their accommodation since they arrived in Rome for the first time. In this term, relevant differences can be found between men and women. While half of interviewed men have changed the accommodation three times or more since arrived to Rome for the first time, about 70% of female respondents have been living in the same accommodation since their arrival. Obviously, this is very likely due to the higher average length of stay for males and relevant is also the fact (further described later in this chapter) that after the arrival the majority find a provisory lodging by their friends, relatives or acquaintances and only later move into their own accommodation. Bangladeshi women, on the other hand, come in most cases throughout the family reunion joining their husbands who had been already settled there.

Figure 6 shows the residential stability of Bangladeshi interviewees according to year in which they arrived in Rome for the first time. It is evident, that the majority of all Bangladeshi respondents did not change their address in the year prior to the moment of the interview.





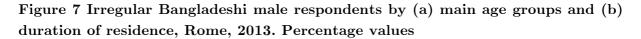
Source: own elaboration on the BSS 2013 $\,$

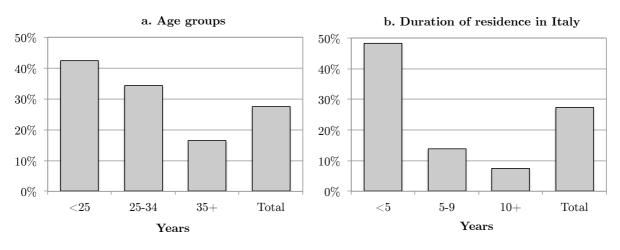
However, we can observe that the residential stability tends to be proportional to the duration of residence in Rome. Among respondents who arrived after 2009 the residentially stable component represented 76% respect to 84% among those who arrived before 2000.

4.2.4 Legal status

One of the important advantages of the survey is that it permits capturing not only the regular Bangladeshi immigrants, but also those who are present in Rome irregularly. The proportions of regular and irregular component in the sample are 77% and 23% respectively, showing significant gender differences. Whereas 28% of Bangladeshi males are present in Rome irregularly, all of the female respondents are regular. This high proportion for women is related to the fact that most of them entered in Italy through the family unification (in a regular way), but we also have to take into consideration a small representation of Bangladeshi women in the sample.

In Figure 7 are shown irregular male respondents, according to main age groups and duration of residence. As we can see in Figure 7a, the irregularly present Bangladeshi males are rather younger; the highest proportion is aged under 25 years (43%) and this share significantly decreases with age. Similar trend can be found when considering the duration of residence (Figure 7b). Almost half of the irregular Bangladeshi respondents stay in Rome for less than five years and only 6% for ten years or longer. The latter group is formed by those who had their visas expired.

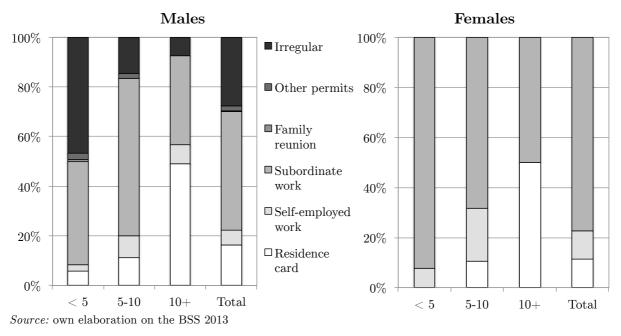




Source: own elaboration on the BSS 2013 $\,$

On the other hand, referring to the regular respondents, the Figure 8 shows the Bangladeshi respondents concerning type of permit and duration of residence, separately for men and women. While for males predominates the residence permit for subordinate work (60%), the majority of females have the family reunion permit (79%).

Figure 8 Bangladeshi respondents by type of permit, gender and duration of residence in Italy, Rome, 2013. Percentage values



Additionally, variations in type of residence permit can be found between males and females when concerning the respondents' duration of residence in Rome. With increasing length of stay increases the proportion of Bangladeshi males with a residence card permit and remarkably decreases the share of irregular respondents. A proportional increase respect to the length of stay is noticeable also for males who obtain the permit for self-employed work. In the case of Bangladeshi females, irrespective to the length of stay prevails residence permit for family reunion.

4.2.5 Family perspective

In the following paragraphs we give a detail description of the family situation of the Bangladeshi respondents related to their family of origin, current family type, marriage and selection of spouse and family members present in Rome.

The family plays an important role in the migration process of Bangladeshis and therefore we consider essential to describe also the respondents' family background. The number of siblings can provide more detail about the size of family from which the respondents come from. The average number of siblings is roughly three brothers or sisters, but as indicated in Table 10 the male respondents come from larger families than females. In fact more than one third of Bangladeshi males have more than five siblings. Moreover, it seems that younger respondents have in general less siblings than the older ones. While among those aged over 35, more than half have four or more siblings, among the respondents under 25 it is less than a quarter.

		Number of siblings								% with at				
			INUIID	er or s	sionna	5		Average no. of	C.V.	least one of				
	0	1	2	3	4	5 +	5	+ Total	siblings		(%)	siblings in		
	0	T	4	J	મ હ	4	4	4	0 +	0^+	IUtal	sionings		emigration
Total	7.6	8.9	18.8	21.0	17.8	25.8	100	3.4	60.1	36.4				
Gender														
Male	6.1	6.1	15.7	21.8	19.2	31.0	100	3.7	55.4	38.6				
Female	15.1	22.6	34.0	17.0	11.3	-	100	1.9	63.3	24.4				
Age groups														
${<}25$	20.0	20.0	17.8	17.8	11.1	13.3	100	2.2	81.2	30.6				
25-34	3.3	7.9	21.2	25.8	17.2	24.5	100	3.4	52.5	33.3				
35+	7.6	5.9	16.1	16.1	21.2	33.1	100	3.8	59.0	42.3				

Table 10 Number of siblings and average number of siblings of Bangladeshi respondents by gender and main age groups, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

Interesting is also the location of respondents' siblings, i.e. if staying in Bangladesh or living abroad. The fact that approximately 36% of respondents have at least one sibling that lives in emigration indicates the vastness of the migration phenomena.

The fact that the respondents' parents are alive or not can shed light on the family situation left behind in the country of origin. As we can see in Table 11 around 65% of respondents have still both parents alive, of which about half have both parents that are not economically active. Both working parents have only 27% of respondents. However, only 28% of respondents' parents need a care support from other family members or other persons.

Characteristics	Male	Female	Total
Total	100	100	100
Parents are alive			
No	10.3	21.2	12.1
Only mother	23.7	15.4	22.3
Only father	1.1	-	1.0
Both parents	64.9	63.5	64.6
Economically active parents			
No parent	57.7	16.7	51.4
Only mother	8.1	19.0	9.8
Only father	11.1	14.3	11.6
Both parents work	23.1	50.0	27.2
Financial support to parents			
No financial help	52.7	96.2	59.9
Providing entire financial help to parents	32.1	3.8	27.4
Partecipating on financial help to	15.3	-	12.7
parents with other siblings			
Care support to parents			
No one, they do not need it	69.8	84.2	72.0
Other siblings	15.0	5.3	13.5
Another person	15.2	10.5	14.5

Table 11 Bangladeshi respondents by the parents' characteristics, financial and care support to parents by gender, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

The transnational ties with the family of origin are partially reflected in the respondents' financial support towards their parents. This concerns in particular the Bangladeshi males; almost half of them provide entirely or participate on the financial help to parents. On the other hand, the majority of female respondents do not provide any financial support to their parents. This can be explained primarily by their high economic inactivity.

Marriage: individual or family decision

As described in Chapter 1.1, Bangladeshi community living outside of Bangladesh continues to maintain the traditional, pre-modern social and cultural practices. In the literature is described also high ethnical homogeneity among Bangladeshis in terms of marriage (Berthoud 2000; Propa 2007). This is confirmed also by the results of the survey, more than 99% married interviewees have a spouse of Bangladeshi nationality.

Another of the characteristics that are typical for the Bangladeshi community is the rather large age difference between man and woman in a married couple. We do not have information about the age differences in couple of the married respondents, but a sign can be found also in the average age at marriage. Table 12 shows that the average age at marriage of Bangladeshi females is 20 years, which is almost eight years less than the average age at marriage of Bangladeshi male respondents. Although legally, the minimum age of marriage in Bangladesh is 18 for females and 21 for males (Mukti and Lutfunnahar 2014) the early marriages are still very diffused. This is evident also from the sample of the BSS, where the minimum age at marriage among female respondents was recorded as 14 years.

 Table 12 Bangladeshi respondents by mean age at marriage and gender, Rome,

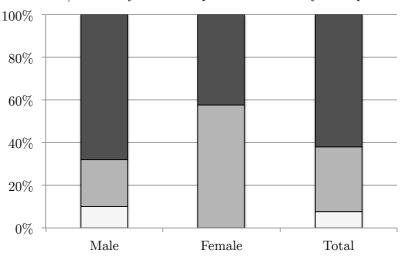
 2013.

	Age at	marri	age (in	years)
Gender	Mean Min		Max	C.V.
	Mean	IVIIII	Max	(%)
Male	28.0	17	42	16.3
Female	20.4	14	26	13.4
Total	26.2	14	42	20.3

Source: own elaboration on the BSS 2013 $\,$

Furthermore, marriage is considered central to the values of the Bangladeshi society and marriages are still broadly arranged rather than individually contracted. In fact, among respondents, 70% of males and 40% of females married a person that was chosen by the members of their family (Figure 9). Moreover, no women and only 10% of interviewed men selected their spouse personally without the involvement of other family members. However, more than half of women and 20% of men declared that they could influence in some way the family decision concerning the selection of their future spouse.

Figure 9 Who selected the spouse of Bangladeshi respondents by gender, Rome, 2013. Percentage values



■ His/her family ■ Both respondent and family ■ Respondent

Source: own elaboration on the BSS 2013

The higher proportion of arranged marriages for men than for women might be related to the timing of marriage, if married before or after the emigration to Italy. In fact, almost half of males, respect to 15% of females got married after they moved from Bangladesh to Rome. Consequently, given a fact that Bangladeshi males stay in another country and another continent, limit them physically (and very often they simply do not have time) to contribute to the decision as much as they would like to.

Family type of Bangladeshis in Rome

Family plays an important role in the migratory strategies of immigrants (Strozza and Terzera 2006) and this is true also for the Bangladeshi immigrants in Rome. The families can be partially or entirely present in the destination country and this fact influences to large extent the variety of immigrants' plans, strategies and informal obligations. Therefore, the fact of being single, having a family in Rome or family left in Bangladesh is mirrored also in differentiations of their housing conditions, living arrangements, amount of remittances, legal status, etc.

In this study we distinguish three family types of Bangladeshi respondents (1) no nuclear family, i.e. never married Bangladeshis, (2) married couple, i.e. Bangladeshis who are married but do not have children, and (3) married couple with children. As we can see in Table 13 almost 50% of all respondents are married and have children. Approximately 23% are married, but do not have children, and 29% of respondents have never been married. Similar tendencies can be observed with

respect to age and duration of residence, i.e. the increasing share of families with children and decreasing share of those who do not have a nuclear family.

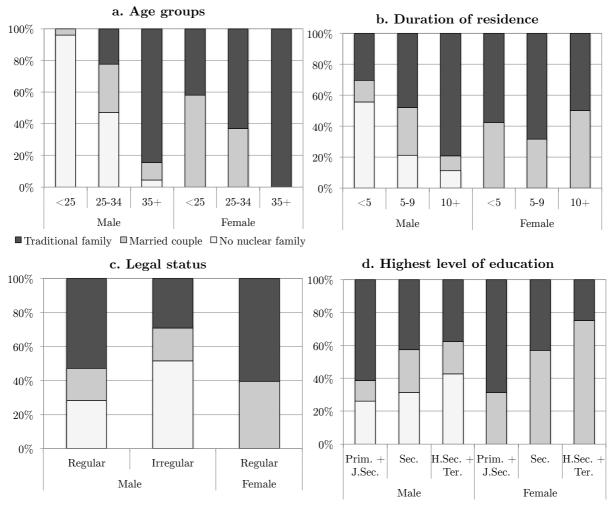
	Family Type (%)						
Characteristics	No nuclear family	Married couple	Married couple and children	Total			
Total	28.4	22.7	48.9	100			
Gender							
Male	34.2	19.2	46.5	100			
Female	-	39.6	60.4	100			
Age groups							
$<\!\!25$	55.6	26.7	17.8	100			
25-34	38.8	31.6	29.6	100			
35+	4.3	10.3	85.5	100			
Duration of residen	ce						
${<}5$	45.3	19.4	35.3	100			
5-9	17.7	31.0	51.3	100			
10+	9.8	14.8	75.4	100			
Legal status							
Regular	21.9	23.6	54.5	100			
Irregular	51.4	19.4	29.2	100			
Education level							
Primary and Junior	17.8	18.6	63.6	100			
Sec.	17.8	18.0	03.0	100			
Secondary	28.7	28.7	42.5	100			
Higher Sec. and Tertiary	39.4	23.9	36.7	100			

Table 13 Family types of Bangladeshi respondents by gender, age groups, duration of residence, legal status and highest level of education, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

The differences between males and females related to the family type according to different characteristics are shown in Figure 10. Interesting are the differences related also to legal status of male respondents. We can see that, whereas all women are present in Rome regularly, more than half of the irregularly present males do not have a nuclear family and approximately three quarters of regular male respondents form a married couple with (51%) or without children (24%).

Figure 10 Family types of Bangladeshi male and female respondents by (a) age groups, (b) duration of residence, (c) legal status and (d) highest level of education achieved distinct, Rome, 2013. Percentage values



Source: own elaboration on the BSS 2013

The variations can be found also in relation to the highest level of education. In the case of female respondents the proportion of those who do not have children is about 30% for women with the low education levels (primary and junior secondary) and more than 75% for women of higher education.

Another very important aspect of immigrants' family situation is where live the members of nuclear family, if he or she forms one. They can either share the space together in a place of destination, or remained in the country of origin. The situation regarding the Bangladeshi male respondents taking into account also duration of residence is shown in Table 14. The female respondents are not included since all of them are married and live with their husband in Rome. For male respondents we can observe in this context significant differences in relation to their length of stay in Rome. Among those who are married and live in Rome for less than five years, only 2% live with their spouse in Rome. This share is notably higher (28%) for the married male respondents who live in Rome for more than ten years.

$\mathbf{Gender}/$			where live		
Duration of residence	Not married	Married	Rome	Bangladesh	Total
Male					
${<}5$	55.3	44.7	2.0	98.0	100
5-9	21.3	78.7	6.8	93.2	100
10 +	11.5	88.5	28.3	71.7	100
Total	34.2	65.8	11.1	88.9	100
Total					
${<}5$	45.0	55.0	35.1	64.9	100
5-9	17.7	82.3	25.8	74.2	100
10 +	10.2	89.8	37.7	62.3	100
Total	28.5	71.5	31.8	68.2	100

Table 14 Marital status and the place where live spouse of Bangladeshi male respondents by duration of residence, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013

An important aspect of the family situation is the size of the family, i.e. number of children. Considering all respondents, almost half of them have at least one child. However, since having children is in the case of the Bangladeshi respondents conditioned by being married, it is perhaps more clear to consider only the married component. In this perspective it means that 68% of all married interviewees have children. Among those who have children, over half have only one child, 23% have two children and roughly 19% have three children.

As we can see from Table 15 the majority (66%) of interviewees' children at the moment of the survey lived in Bangladesh. Nevertheless, the proportion of children who were born and live in Italy is 22% of all respondents' children. The country of both birth and residence of children differs notably according to duration of residence. Among the respondents who have children and stay in Rome for less than five years nearly 80% of children were born and live currently in Bangladesh. On the other hand, among the 'long settlers' this share accounts for 49%. In the latter group, respect to more recently arrived respondents, relatively high is the proportion of children who were born and live in Rome (27%) and those who were born in Bangladesh but currently living in Italy (10%). Table 15 Children of Bangladeshi respondents by country of birth and country of current residence of children and duration of residence, Rome, 2013. Percentage values

Country of birth and of current residence	% by duration of residence				
of children	<5	5-9	10+	Total	
Born and live in Bangladesh	76.9	75.3	49.0	65.5	
Born in Bangladesh and lives in Italy	3.1	6.7	10.2	7.1	
Born and lives in Italy	20.0	18.0	26.5	21.8	
Born in Italy and lives in Bangladesh	-	-	12.2	4.8	
Born in Italy and lives in other country	-	-	2.0	0.8	
Total	100	100	100	100	

Source: own elaboration on the BSS 2013 $\,$

The family type of the Bangladeshi respondents is closely associated with their living arrangements in the destination place and therefore also with their housing conditions. For this reason, we consider as appropriate to describe living arrangements of Bangladeshi interviewees in the context of housing conditions (see Chapter 4.2.8).

4.2.6 Education

An educational attainment represents an important aspect when evaluating immigrants' possibilities of integration in to a host society particularly in terms of labour market. Nevertheless, it is important to underline, that the educational qualification obtained in Bangladesh is in Italy not legally recognized as Italian equivalent (Embassy of Italy 2004). This can make it for Bangladeshi immigrants more difficult to benefit from the human resource they acquired in their country of origin. In Table 16 are shown the differences concerning the highest level of education achieved and the differences between male and female respondents. Considering all Bangladeshi respondents it can be observed that 38% have primary of junior secondary level, 28% secondary level and 35% the highest secondary and tertiary.

	% of highes	st level of e	ducation achie	eved	Average	
Condon /		(years of		0		
Gender/ Age group		Secondary (14-15)	Higher Secondary and Tertiary	Total		C.V. %
	(6-13)		(16+)		years	
Male						
${<}25$	18.5	18.5	63.0	100	11.2	25.2
25-34	21.6	36.0	42.4	100	10.8	21.3
35 +	44.5	27.3	28.2	100	9.9	26.5
Total	30.9	30.5	38.5	100	10.5	24.2
Female						
${<}25$	80.0	-	20.0	100	7.9	32.3
25-34	57.7	26.9	15.4	100	9.0	27.5
35+	100.0	-	-	100	8.0	-
Total	71.7	13.2	15.1	100	8.5	27.8
Total						
${<}25$	44.7	10.6	44.7	100	9.8	32.1
25-34	27.8	34.4	37.7	100	10.5	23.2
35 +	47.9	25.6	26.5	100	9.8	26.4
Total	37.8	27.6	34.6	100	10.1	25.8

Table 16 Highest level of education achieved of Bangladeshi respondents by gender and age groups, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013

An average number of schooling years for all respondents are little more than ten years, differing significantly by gender. Bangladeshi males of the sample are more educated respect to female component, with an average number of schooling years 10.5 respect to 8.5 years respectively. In fact, most of women of the sample (72%) declared the primary or junior secondary level as highest level of education achieved. On the other hand, among male respondents, almost 40% have higher secondary or tertiary level of education, and this proportion is even higher when looking on the specific age groups. Among males aged under 25 years this highest educational level acquired 63%, among those aged 35 or older only 28%. These results suggest that, at least regarding male component of the sample, the younger Bangladeshis are more educated respect to the older ones.

4.2.7 Economic situation

In the following section we explore the economic situation of Bangladeshis in Rome. Firstly, we concentrate on the respondents' situation before their migration from Bangladesh, and then in more detail on their employment situation in Rome.

Employment situation before migration from Bangladesh

Before a detail description of the economic situation of Bangladeshi respondents in Rome, it is interesting to see how was their situation in Bangladesh before the migration to Italy. Table 17 shows remarkable differences concerning the employment condition of men and women. In the sample, no female respondent was economically active before leaving Bangladesh. Little more than half of them were students and the rest were not active because of being housewives and taking care of home and family. Therefore, we focus our attention only on the male component of the sample. We can see that 86% of male respondents were economically active with an unemployment rate of 44%. Nevertheless, there are evident differences in age at emigration related to the unemployment rate of the Bangladeshis captured in the BSS.

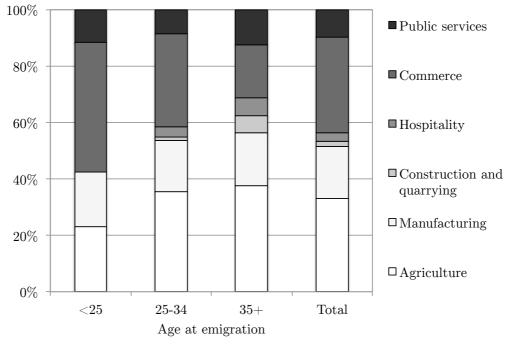
Gender/	% of em	% of employment condition before the emigration						Unemploy-
Age at emigration	employed	un- employed	searching for the 1st job	$\operatorname{student}$	house- wife	Total	activity rate (%)	ment rate (%)
Male								
${<}25$	29.4	38.5	9.2	22.9	-	100	77.1	61.9
25-34	61.2	28.4	2.2	8.2	-	100	91.8	33.3
35+	63.2	36.8	-	-	-	100	100.0	36.8
Total	48.1	33.2	5.0	13.7	-	100	86.3	44.2
Female								
${<}25$	-	-	-	67.6	32.4	100	-	-
25-34	-	-	-	22.2	77.8	100	-	-
35+	-	-	-	-	-	-	-	-
Total	-	-	-	51.9	48.1	100	-	-
Total								
${<}25$	22.4	29.4	7.0	33.6	7.7	100	58.7	61.9
25-34	53.9	25.0	2.0	9.9	9.2	100	80.9	33.3
35+	63.2	36.8	-	-	-	100	100.0	36.8
Total	40.1	27.7	4.1	20.1	8.0	100	72.0	44.2

Table 17 Employment condition in Bangladesh before emigration by gender and age at emigration groups, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

While among male respondents that at the time of the emigration were aged under 25 years the unemployed were 62%, among those aged over 35 years it was 37%.

Figure 11 Bangladeshi male respondents by employment sector and age at emigration, Rome, 2013. Percentage values



Source:own elaboration on the BSS 2013

In Figure 11 is then shown the sector of employment of the Bangladeshi respondents before their emigration from Bangladesh. As illustrated, the majority of respondents worked in commerce and in agriculture with younger Bangladeshis prevalently in commerce and older in agriculture.

Employment situation in Rome

Firstly, it is important to underline that among the interviewed Bangladeshis exist relevant gender differences related to their employment situation. As we can see in Figure 12, almost 90% of females have never worked in Rome, in comparison with 2% of males.

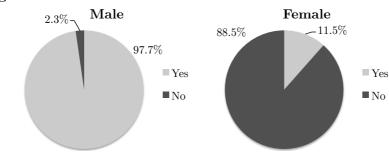
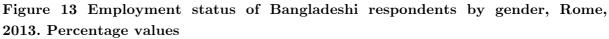


Figure 12 Bangladeshi male and female respondents and employment in Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

Moreover, in terms of the employment status of respondents we can observe relevant gender differences (Figure 13). While more than 90% of female respondents are housewives, the majority of Bangladeshi males are employee (60%) or working as street sellers (hawkers) (32%).





Employee Self-employed

60%

40%

20%

0%

For this reason, given an insignificant proportion of (ever) employed women and the predominantly prevailing condition of housewife, we decided in the section related to employment situation to consider only the male part of the sample.

Hawker

Unemployed

Housewife

Considering only the male component of the sample (Table 18), the unemployment rate is rather low, accounting for less than 3% and among the Bangladeshi males who are employed most are in a stable employment (66%). The situation is slightly different when taking into account age, length of stay or the regularity of presence in Rome. For instance, the proportion of males with a stable employment is much higher for those who are aged 35 and over than for those who are aged under 25 years, representing 72% and 35% respectively. The similar trend is observable when considering the duration of residence. Among male respondents that are present in Rome regularly most are in a stable employment situation (74%), which is not so true for the irregular component (42%).

Only 2% of Bangladeshi male interviewees had more than one job. Given the low number we did not investigate further this phenomenon.

Source: own elaboration on the BSS 2013

	En	nployed	- Unemployment		
Characteristics	stable	occasional		Total	
Total	65.4	32.0	2.6	100	
Age groups					
${<}25$	34.6	50.0	15.4	100	
25-34	65.4	32.3	2.3	100	
35+	71.8	27.3	0.9	100	
Duration of presence	e				
${<}5$	49.1	45.6	5.3	100	
5-9	72.4	26.5	1.0	100	
10 +	86.8	13.2	-	100	
Legal status					
Regular	74.2	23.2	2.6	100	
Irregular	41.7	55.6	2.8	100	
Education level					
Primary and Junior	75.0	23.8	1.2	100	
Sec.	75.0	23.0	1.2	100	
Secondary	55.7	44.3	-	100	
Higher Sec. and	64.4	29.7	5.9	100	
Tertiary	04.4	29.1	0.9	100	

Table 18 Bangladeshi male respondents by employment condition, Rome, 2013.Percentage values

Source:own elaboration on the BSS 2013

More detailed view on employment situation of Bangladeshi males shows that from the all employees, 40% do not have an employment contract (Table 19). In this context we can observe that the irregularity in terms of employment seems to be more associated with an initial period after the migration. In fact, we can see that among the respondents who stay in Rome for less than five years, the proportion of employees without contract and of street sellers is 60% and 50% respectively, while in among those who reside in Rome for more than ten years are 16% and 13%. Similarly, the irregular employment situation is more frequent among younger Bangladeshi males, representing almost 60% for those aged under 25 years.

Concerning educational level, the majority of the respondents with lower education are employees, among respondents with secondary education prevails irregular employments, i.e. employees without contract and street sellers. In the case of respondents with higher education more than 60% work as employees with contract, but nearly one third do a street seller. This suggests that in the case of Bangladeshis in Rome the educational level does not determine the corresponding employment situation.

		Employment situation (%)							
Characteristics	Self-		Employee	Employee					
Characteristics	employed	Employee	with	without	Hawker	Total			
	empioyed		contract	contract					
Total	4.3	62.8	59.9	40.1	32.9	100			
Age groups									
$<\!\!25$	-	40.9	44.4	55.6	59.1	100			
25-34	1.6	65.1	61.0	39.0	33.3	100			
35 +	8.2	64.5	60.6	39.4	27.3	100			
Duration of presen	nce								
${<}5$	0.9	50.9	40.0	60.0	48.1	100			
5-9	2.1	71.1	62.3	37.7	26.8	100			
10 +	15.1	71.7	84.2	15.8	13.2	100			
Legal status									
Regular	5.8	70.4	71.4	28.6	23.8	100			
Irregular	-	42.0	-	100.0	58.0	100			
Education level									
Primary and Junior	1.0	747	<u>()</u>	97 1	04.1	100			
Sec.	1.2	74.7	62.9	37.1	24.1	100			
Secondary	6.3	50.0	52.5	47.5	43.8	100			
Higher Sec. and	1 9	64 9	60.7	20.2	21 G	100			
Tertiary	4.2	64.2	60.7	39.3	31.6	100			

Table 19 Bangladeshi male respondents by employment situation, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

The economic situation related to different employment statuses is given in Table 20. As we can see Bangladeshi male respondents work in average 58 hours a week and have an average monthly individual income of 829 Euro. The self-employed results to work more hours a week in average respect to other employees and street sellers, but they benefit also from the highest monthly income. Rather favorable situation can be observed among employees with contract, working in average 51 hours worked a week and the average monthly income of 934 Euro. Less positive is the economic situation for employees without contract and even more for street sellers. An employee without contract have an income under nine hundred Euro, even though the average number of hours worked a week is quite high (63 hours). With the average monthly income of 682 Euro and the 60 hours worked a week, street sellers shows the worst employment situation. This suggest that the employment irregularity seems to be closely related to less favorable economic situation of Bangladeshi males.

Table 20 Employment status by average monthly individual income and average number of hours worked a week, Bangladeshi male respondents, Rome, 2013. Percentage values

	Self-		Employee	Employee		
Characteristics	employed	Employee	\mathbf{with}	without	Hawker	Total
	empioyeu		$\operatorname{contract}$	contract		
Hours worked a week						
Mean	66	56	51	63	60	58
Median	61	56	48	63	60	60
C.V.(%)	19.3	35.5	35.9	31.1	33.0	34.1
Monthly individual						
income (in Euro)						
Mean	995	895	934	837	682	829
Median	$1,\!100$	900	972	900	700	900
C.V.(%)	14.1	23.0	22.1	23.0	37.0	29.4

Source:own elaboration on the BSS 2013

In the sample, the five most frequent jobs among Bangladeshi males in Rome are (1) dishwasher (22%), (2) hawker selling flowers and umbrellas (13%), (3) assistant of stall on the market (7%), (4) cook (7%) and (5) cook assistant (5%).

Table 21 Five main jobs with highest and lowest average monthly individual income, Bangladeshi male respondents, Rome, 2013.

	Jobs with highest averageJobs with lowest averagemonthly individual incomemonthly individual income				
Job description	Average monthly income (in Euro)	C.V. (%)	Job description	Average monthly income (in Euro)	C.V. (%)
Cook	1048	10.7	Hawker (selling handkerchiefs, newspapers)	432	28.7
Assistant of cook	1040	9.2	Hawker (cleaning car windows at traffic lights)	450	76.7
Pizza maker	1036	16.0	Hawker (selling clothes, bags)	598	43.7
Shopkeeper	1012	13.8	Hawker- bijouteria/flowers /umbrellas	704	30.9
Receptionist	994	14.9	Cleaner	716	24.3

Source: own elaboration on the BSS 2013 $\,$

Table 21 shows the classification of five jobs with the highest and the lowest average monthly income. The jobs with the highest individual income those related to the hospitality sector of the own business, the jobs with the lowest income are those of street sellers. We can see there exist large variations among the Bangladeshis in Rome in terms of employment, for instance the situation of a Bangladeshi who works as cook and a Bangladeshi who works as seller on the street.

Proportion of monthly expenses on income

Important indicators of economic situation are next to the average monthly income also the monthly expenses of the individual or family. In Table 22 we can observe that the proportion of monthly expenses on family monthly income (if the respondent does not have family, it is considered the individual income) varies particularly according to different composition of household. Among respondents who live with nuclear family, for the majority (79%) the monthly expenses represent 75 or more percent of the monthly income, while for respondents who live with friends or acquaintances more than half spend less than 50% of the average monthly income. Nevertheless, there are significant differences also in the average monthly income relative to these two groups.

	Droport	ion of tot	al expension	sos on	Average	$\mathbf{monthly}$	Average	monthly
	•		r income		family	family income		enses
Characteristics	lanniy	montiny	meome	(70)	(in E	uro)	(in I	Euro)
	${<}50\%$	50-75%	>=75%	Total	Mean	C.V.(%)	Mean	C.V.(%)
Total	35.0	32.8	32.2	100	914	32.6	553	45.9
Duration of residence								
$<\!5$	32.1	37.1	30.7	100	829	41.1	526	47.9
5-9	42.9	32.1	25.0	100	947	23.8	512	41.8
10+	27.4	24.2	48.4	100	1,046	23.8	690	41.1
Legal status								
Regular	33.7	28.8	37.4	100	966	30.4	601	43.9
Irregular	39.4	46.5	14.1	100	737	32.4	390	29.2
Household composition								
with nuclear family	-	21.1	78.9	100	$1,\!158$	9.1	893	18.7
with relatives	42.9	39.3	17.9	100	841	24.5	470	44.4
with friends/acquaintances	53.7	27.8	18.5	100	828	37.4	417	40.6
with unrelated	37.4	44.9	17.8	100	855	36.1	483	34.9

Table 22 Average monthly expenses and average monthly family income of Bangladeshi male respondents, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

Tiny differences are notable also when looking from the perspective of regularity of presence in Rome. As we can see the irregular respondents have significantly lower average monthly expenses than the regular respondents, 390 Euro and 600 Euro respectively. Moreover, the proportion of those with monthly expenses exceeding 75% of their monthly income is only 14%.

Change of employment status: improvement or deterioration

One of the main motives of migration is to improve the living conditions, quality of life as well as employment condition that are usually not fully satisfied in the country of origin. To understand the character of the migration process from Bangladesh to Rome in this context, given the employment status before the migration from Bangladesh and the employment status in the migration destination, we have created four types of employment status changes (1) improvement of previous conditions, (2) deterioration, (3) unchanged (employed), and (4) unchanged (unemployed or housewife). In Table 23 we can see the classification of specific changes in employment status between the situation in Bangladesh and the situation in Rome into three categories (the type 'unchanged (employed)' is not necessary to describe).

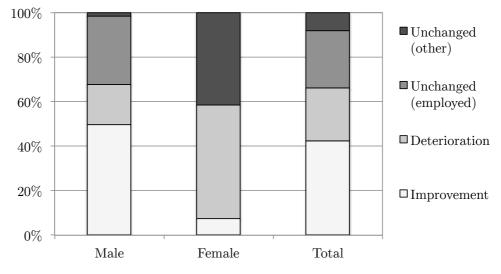
Type of change of the employment status								
Improvement	Deterioration	Unchanged (other)						
From - To	From - To	From - To						
Student - Employed	Student - Housewife	Housewife - Housewife						
Student - Self-employed	Student - Hawker	Unemployed - Unemployed						
Unemployed - Employed	Employed - Hawker							
Unemployed - Self-employed	Employed - Unemployed							
Unemployed - Hawker								
Housewife - Employed								

Table 23 Definition of change of employment status

Source: own elaboration on the BSS 2013

In Figure 14 is shown how changed the employment status of the Bangladeshi respondents between the current situation in Rome and the situation before the migration from Bangladesh. We can see that 43% of all respondents improved their employment conditions and 26% remained employed. For this share of the sample we can consider the migration from Bangladesh to Rome as having positive effect on the employment status of migrants.

Figure 14 Bangladeshi respondents by type of change in the employment status in Rome respect to the employment status in Bangladesh before migration, Rome, 2013. Percentage values



Source:own elaboration on the BSS 2013

This is not entirely true for the female component, where only 8% improved their conditions, while more than 50% experienced the deterioration of their employment status. Approximately for 42% of females the unchanged situation is related to the condition of being housewife.

Remittances

As abovementioned, the remittances represent an important aspect of the migration, especially in the case of Bangladeshi immigrants. Table 24 shows that more than 84% of all male respondents declare to have sent remittances during the last year. If we consider that the average monthly individual income of Bangladeshi males is approximately 830 Euro and that an average monthly amount of remittances send to Bangladesh is almost 300 Euro, it means that monthly remittances represents roughly 36% of the respondents' monthly income. We can see that the proportion of those who send remittances to their families in Bangladesh and the amount they send changes according to different characteristics. For instance, the younger respondents send in average less than those who are older and while among respondents younger than 25 years, 58% send remittances, among respondents over 35 this share represents more than 90%. Interesting the differences according to marital status.

	Send	Average	
Characteristics	remittances	$\mathbf{monthly}$	C.V.
Characteristics	last year r	emittances	(%)
	(%)	(in Euro)	
Total	84.3	299	51.7
Age groups			
$<\!\!25$	57.7	245	44.5
25-34	84.0	273	55.5
35+	90.9	335	46.9
Duration of residence			
${<}5$	77.2	249	50.6
5-9	93.6	323	50.6
10+	83.3	351	46.5
Marital status			
Never married	72.2	267	53.4
Married with NF in Bangladesh	94.0	321	48.5
Married with NF in Rome	68.4	213	71.1
Legal status			
Regular	85.3	322	50.0
Irregular	81.9	237	49.0
Employment situation			
Self-employed	72.7	358	51.6
Employee with contract	90.8	311	44.2
Employee without contract	93.5	343	46.8
Hawker	76.5	226	57.4

Table 24 Remittances of Bangladeshi male respondents by age groups, marital status, legal status and family of origin, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

As one would expected, the lowest proportion (but still 70%) of respondents who send remittances and the lowest monthly amount (slightly more than 200 Euro) is found among those who are married living with their nuclear family in Rome. On contrary, the highest average remittances send respondents who are married with family living in Bangladesh. Significant are differences with respect to the employment situation. The higher amounts sends self-employed and employees with contract, the lower the employees without contract and the street sellers. These results suggest that the regularity in the employment status and the presence of nuclear family in Rome play a not negligible role.

4.2.8 Housing conditions

Housing conditions represent one of the most important indicators of immigrants' living conditions. In the following paragraphs we focus on different aspects of housing of Bangladeshis in Rome, such as tenure type, level of overcrowding, living arrangements, etc. In this context, an important role plays also the housing market structure and to that linked the presence and accessibility of affordable housing. All these characteristics have an impact on the housing situation of immigrants, and thus also on the housing conditions of the Bangladeshis living in Rome.

First of all, from all Bangladeshi respondents living in Rome 98% live in flats.

Housing tenure

In terms of tenure type, as shown in Table 25, only 4% of respondents own their accommodation. Nevertheless, we can observe that among the respondents that live in Rome for more than ten years, this proportion accounts for 12%, while among the recently arrived Bangladeshis is little more than 1%. Thus, the majority of the Bangladeshi respondents are renters and of these 72% do not have an accommodation contract. This suggests that in terms of housing there is even higher irregularity respect to legal status of the Bangladeshi respondents. However, there seems to be link between these two aspects. The Bangladeshi females of the sample are all present regularly in Rome and respect to male respondents it is evident also considerably higher proportion of those living in regular housing conditions (60% and 19% respectively).

		Но	using tenu		
Characteristics	\mathbf{Own}	Rent	Rent without contract	Rent with contract	Tota
Total	3.5	96.5	73.2	26.8	100
Gender					
Male	2.7	97.3	80.3	19.7	100
Female	7.7	92.3	35.4	64.6	100
Duration of residence					
${<}5$	1.4	98.6	66.7	33.3	100
5-9	1.8	98.2	73.3	26.7	100
10 +	11.5	88.5	75.7	24.3	100
Legal status					
Regular	4.5	95.5	65.4	34.6	100
Irregular	-	100.0	100.0	-	100
Education level					
Primary and Junior Sec.	0.8	99.2	35.0	65.0	100
Secondary	3.0	97.0	19.4	80.6	100
Higher Sec. and Tertiary	16.1	83.9	34.6	65.4	100
Monthly rent					

0.8

13.4

99.2

86.6

16.7

67.2

Table 25 Housing tenure of Bangladeshi respondents by gender, duration of residence, legal status, highest level of education and average monthly rent, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

Less than 400Euro

400Euro and more

Relevant seems also the distribution of housing tenure by family type present in Rome. As we can see on Figure 15, there are noticeable differences between specific family types when considering the type of housing tenure. The result shows that the presence of family members contributes to better conditions in terms of tenure type. As we can see, the highest proportion of renters without an accommodation contract have those who are not married and living in Rome without relatives or friends (92%). Also those who are married but their family remains in Bangladesh tend to live in rent without contract (more than 80%). The situation is notably different for respondents, who live in Rome with their nuclear family. In this group we can find both the higher proportion of owners and those living in rent with contract (11% and 62% respectively).

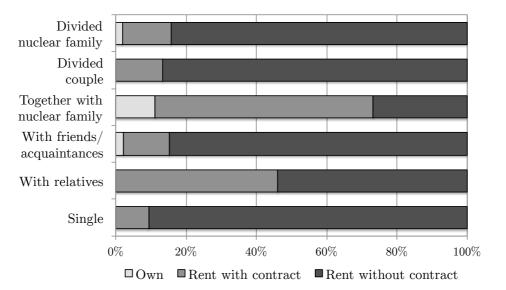
100

100

83.3

32.8

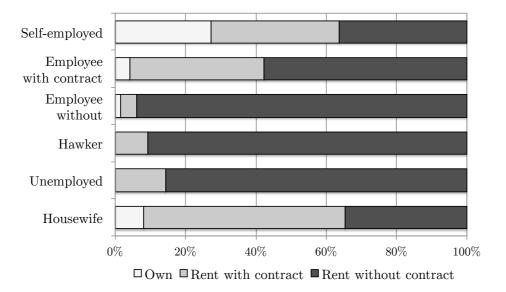
Figure 15 Housing tenure of Bangladeshi respondents by family type present in Rome, Rome, 2013. Percentage values



Source: own elaboration on the BSS 2013 $\,$

The close relation of regular housing conditions of the Bangladeshi respondents to the presence of family is partially indicated by the fact that among respondents who live with relatives almost half of them live in rent with an accommodation contract.

Similarly, looking at housing tenure from the perspective of employment condition it is observable that there are relevant differentiations associated particularly with the presence of an employment contract and overall with the regularity of respondents' employment conditions. These relations between housing tenure and employment condition are clearly shown in Figure 16. In fact, we can observe relatively high proportion of owners (27%) and regular renters (36%) among the self-employed Bangladeshi respondents and the elevated share of irregular renters among employees without contract (94%), hawkers (91%) and unemployed (86%). Figure 16 Housing tenure of Bangladeshi respondents by employment condition, Rome, 2013. Percentage values



Source:own elaboration on the BSS 2013

To some extent, type of tenure is associated also the level of crowding of households.

Crowding

The most used indicator of crowding is the number of persons per room. As shown in Table 26, the average number of persons per room is much lower for female than for male respondents, representing 1.8 and 2.7 persons per room, respectively. Relevant gender differences are found also in terms of average number of persons per household, almost nine persons for males and five for females.

Table 26 Characteristics of crowding of Bangladeshi respondents, Rome, 2013.

Characteristics of crowding	Male	Female	Total
More than one ppr ^a	98.5	81.1	95.5
More than 1.5 ppr	95.4	59.6	89.5
More than 2 ppr	80.8	25.0	71.6
$Overcrowding rate^{b}$	98.1	71.2	93.6
Average number of ppr in household	2.7	1.8	2.5
C.V. (%)	24.0	31.7	28.2
Average number of persons in household	8.9	5.1	8.2
C.V. (%)	26.4	44.0	33.0

Note: (a) Persons per room (ppr).

(b) Overcrowding rate according to the definition of Eurostat (2014). *Source:* own elaboration on the BSS 2013

As abovementioned, in different countries, different thresholds are used to define an overcrowded household. For this purpose, we show three different thresholds that are the most frequently used in the international literature and show how the share of the Bangladeshi respondents differs in the case of specific definitions. For instance, when we consider the threshold of one person per room, 96% of the sample lives in overcrowded households, 99% of men and 81% of women. With the threshold of two persons per room, only 72% of respondents' households are overcrowded, significantly varying by gender (81% for males and 25% for females).

More detailed view on crowding situation of Bangladeshi respondents is provided in Table 27.

Table 27 Number of rooms and persons per room in Bangladeshi respondents' households by gender, duration of residence, legal status, housing tenure, household composition and average monthly rent, Rome, 2013. Percentage values

	House	ehold s	size (r	ooms)	Persons per room		
Characteristics	1-2	3	4 +	Total	1-2	2 +	Total
Total	8.9	62.9	28.1	100	28.7	71.3	100
Gender							
Male	3.4	64.8	31.8	100	19.2	80.9	100
Female	35.8	56.6	7.5	100	75.0	25.0	100
Duration of residence							
${<}5$	9.9	56.7	33.3	100	32.9	67.1	100
5-9	7.1	70.8	22.1	100	23.2	76.8	100
10 +	9.8	63.9	26.2	100	27.9	72.1	100
Legal status							
Regular	11.2	62.8	26.0	100	34.2	65.9	100
Irregular	2.8	63.9	33.3	100	9.7	90.3	100
Housing tenure							
Own	-	45.5	54.5	100	54.5	45.5	100
Rent with contract	21.3	61.3	17.5	100	43.2	56.8	100
Rent without contract	5.0	64.4	30.6	100	22.1	77.9	100
Household compositio	n						
With nuclear family	30.6	56.9	12.5	100	69.4	30.6	100
With relatives	-	70.4	29.6	100	7.1	92.9	100
With friends, acquaint.	1.9	61.1	37.0	100	15.7	84.3	100
With unrelated	3.8	68.6	27.6	100	19.8	80.2	100
Monthly rent							
Less than 400Euro	4.0	65.2	30.8	100	18.7	81.3	100
400Euro and more	28.4	55.2	16.4	100	64.2	35.8	100

Source: own elaboration on the BSS 2013 $\,$

The effect of regularity of presence in Italy on respondents' housing conditions may suggest the fact that 90% of irregular Bangladeshis live in households with more

than two persons per room, respect to 66% of the regular respondents. In terms of housing tenure, the highest proportion of those living in overcrowding households is among renters without contract (78%), the lowest among owners (46%). Relevant seems to be also with who the respondent share an accommodation. Overcrowding is more frequent among those who live with relatives (93%), friends and acquaintances (84%) and with unrelated (80%). Taking into account an average monthly rent, the households of respondents who pay more than 400 Euro are only in 36% overcrowded, respect to 81% of Bangladeshis who pay less than 400 Euro. In the case of Bangladeshis in Rome, higher overcrowding rate seems to be a cost for lower rent expenses.

As we could see, an important part of housing conditions of immigrants in the new destination represents household composition of a household where the immigrants live. The form of living arrangements may results from cultural preferences, but also from financial necessity (Schill *et al.* 1998). During the initial years after the arrival in Italy (or in Rome), until they find a job and consequently also an own accommodation, Bangladeshi immigrants usually depend on their relatives or sponsors (Murdie 2002; Propa 2007). This is also the case of the Bangladeshis in Rome. Therefore, living arrangements then arise from the family type of Bangladeshi immigrant that is present in Rome. One of the main issues of the immigrants' integration is the presence of the family members in the destination country, specifically the nuclear family.

As we observe in Table 28, all females of the sample live with their spouse in Rome respect to only 7% of male respondents. Almost half of Bangladeshi males live in households with unrelated persons and 30% with friends and acquaintances. However, we can observe, that the proportion of Bangladeshi males living with nuclear family increase as increase the length of stay in Rome. Living with friends or acquaintances is more frequent among younger (30%) and recently arrived Bangladeshis (22%). Furthermore, one third of irregular Bangladeshi lives with friends or acquaintances respect to 10% of regular respondents.

It is important to highlight, that within the households of Bangladeshis in Rome still predominate the multi-person cohabitation. This fact closely is related to the character of migration flows from Bangladesh, that only until recently were characterized by single male labour migration.

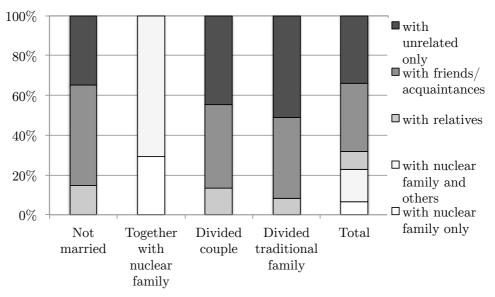
		Not ma	rried		Married			% of
Characteristics	\mathbf{Single}	With relatives	With friends, acq.	With NF	Divided couple	${f Divided}\ {f couple+chil.}$		living with unrelated
Total	9.9	4.1	14.3	22.9	14.3	34.4	100	33.9
Gender								
Male	11.9	5.0	17.2	7.3	17.2	41.4	100	40.6
Female	0.0	0.0	0.0	100.0	0.0	0.0	100	0.0
Age groups								
$<\!\!25$	20.0	6.7	28.9	42.2	2.2	0.0	100	20.0
25-34	13.9	4.6	20.5	20.5	23.2	17.2	100	35.5
35+	0.9	2.6	0.9	17.9	7.7	70.1	100	35.6
Duration of res.								
${<}5$	18.6	4.3	22.1	19.3	11.4	24.3	100	37.6
5-9	3.5	3.5	10.6	21.2	22.1	38.9	100	33.0
10 +	1.6	4.8	4.8	33.9	6.5	48.4	100	27.4
Legal status								
Regular	7.4	4.5	9.9	29.8	12.4	36.0	100	31.7
Irregular	18.3	2.8	29.6	0.0	19.7	29.6	100	41.1

Table 28 Family type present in Rome of Bangladeshi respondents by gender, age groups, duration of residence and legal status, Rome, 2013. Percentage values

Source: own elaboration on the BSS 2013 $\,$

There is a clear pattern in household composition of Bangladeshis and their family type present in Rome (Figure 17).

Figure 17 Household composition of Bangladeshi respondents by family type present in Rome, Rome, 2013. Percentage values



Family type present in Rome

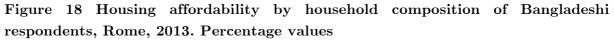
Source: own elaboration on the BSS 2013

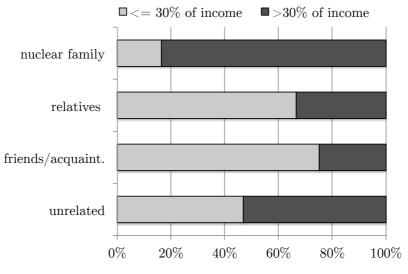
As we can see, half of respondents who are not married live with friends or acquaintances and over 30% live with unrelated persons. The similar proportions are found among those who are married with family living in Bangladesh. For these Bangladeshis predominates the cohabitation in the households with either distant relatives or other Bangladeshis. Completely different is the household composition of the respondents who live with their family in Rome, with the majority living in a household with family and other persons (70%) and the rest living in independent households (only the respondent's family).

The living arrangements are closely associated with the possibility to afford a certain type of housing. The possibility to bring the family to Rome then depends, inter alia, also on the financial resources of the immigrants that are able to spend on the housing expenses, in the case of Rome, sufficiently high.

Housing affordability

The housing affordability indicator shows the proportion of average rent expenses on the average family income, per month. On the basis of the international definition used in the scientific literature (Schill *et al.* 1998; Murdie 2003), we use the level of 30% of average monthly income to define two levels of the housing affordability: 1) 'Affordable housing' (the rent accounts for less than 30% of income); and 2) 'Less affordable housing' (the rent accounting for more than 30% of income).





Source: own elaboration on the BSS 2013

The living arrangement is a relevant issue closely related to the cost of housing. As we can see on Figure 18, the majority (84%) of Bangladeshis living with

their nuclear family in Rome pay monthly more than 30% of their average family income.

Opposite is the situation for respondents who cohabitate with the distant relatives or with friends or Bangladeshi acquaintances (often they know each other already from Bangladesh). About 30% of them (slightly less for those without any kinship) have the rent expenses that accounts for more than 30% of their income. Unexpected are the results in the case of the Bangladeshi respondents who live with unrelated persons. More than half of these respondents pay for rent more than 30% of their income. This can be partly explained by the size of income. The average individual income of respondents who live with nuclear family is 940 Euro, with relatives 821 Euro, with friends or acquaintances and with unrelated less than 800 Euro. The difference between last two categories might be reflected in the amount of rent expenses throughout the element of the different relationship. Living with friends or acquaintances can be an advantage in the form of reduced rental costs.

Housing satisfaction

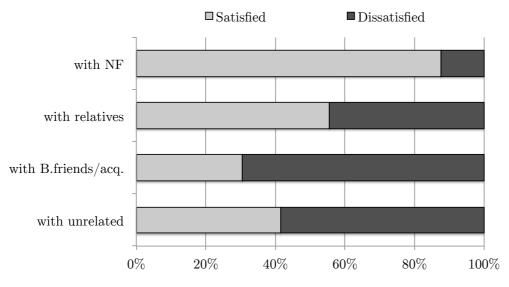
Another aspect of housing is the satisfaction with the accommodation in which the immigrant lives. As shown in Table 29, almost half of all respondents declare to be satisfied with their accommodation, although females seems to be more satisfied than males, 90% and 41% respectively.

Considering the duration of residence of Bangladeshis, the higher proportion of the respondents who are satisfied with their accommodation is found among those who stay in Rome for more than ten years (61%) respect to the recently arrived Bangladeshis (42%). Relevant differences are observed with respect to type of tenure. To be satisfied with their accommodation declared more than 90% of owners, over 75% of regular renters and only 37% of renters that do not have a contract. Three quarters of respondents who live in less overcrowded households are satisfied respect to 38% of respondents who live in households with less than two persons. Important in this context is also the amount of monthly rent; the majority of respondents who pay more than 400 Euro for rent are satisfied. Table 29 Satisfaction with accommodation of Bangladeshi respondents by gender, duration of residence, legal status, housing tenure, persons per room and average monthly income, Rome, 2013. Percentage values

Characteristics	Very satisfied	Satisfied	Dis- satisfied	Total
Total	25.8	23.6	50.6	100
Gender				
Male	16.5	24.9	58.6	100
Female	71.7	17.0	11.3	100
Duration of residence				
${<}5$	19.3	22.9	57.9	100
5-9	33.6	18.6	47.8	100
10+	25.8	35.5	38.7	100
Legal status				
Regular	31.7	25.1	43.2	100
Irregular	5.6	18.3	76.1	100
Housing tenure				
Own	9.1	81.8	9.1	100
Rent with contract	43.2	33.3	23.5	100
Rent without contract	20.3	17.1	62.6	100
Persons per room				
1-2	48.3	29.2	22.5	100
2+	16.6	21.1	62.3	100
Monthly income				
Less than 400Euro	20.6	19.0	60.3	100
400Euro and more	44.1	41.2	14.7	100

Source: own elaboration on the BSS 2013

Figure 19 Satisfaction with accommodation of Bangladeshi respondents by household composition, Rome, 2013. Percentage values



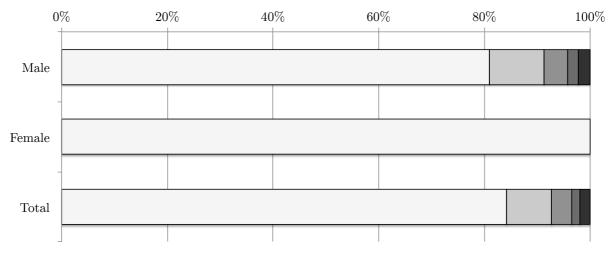
Source: own elaboration on the BSS 2013 $\,$

Figure 19 shows the close relation between the housing satisfaction and living arrangements of Bangladeshi respondents. It is evident that Bangladeshi respondents

who live with nuclear family are more satisfied than respondents who cohabitate with friends, acquaintances or unrelated.

There is a close relation between housing satisfaction and the intention of household member to move out, i.e. continuing housing dissatisfaction can bring to the decision to search for new accommodation. As shows Figure 20, it is evident that the majority (83%) of respondents do not have an intention to change their accommodation, at least in the next year.

Figure 20 Bangladeshi respondents and the intention to change the accommodation in the next 12 months, Rome, 2013. Percentage values



Source: own elaboration on the BSS 2013 $\,$

From those who would like to change the current place where they live, more than half indicate as the main reason the small size of lodging, about 20% the willingness to live with own family and 10% indicate the presence of problems with other flat mates.

4.2.9 Chain migration

Migration is the process that may be realized by the individual or by group of persons. Even if it is the individual who undergo the process, mostly are the family members that decide, sponsor or find the financial resources and make it realizable (Gardner 2002). While almost all Bangladeshi men arrived in Rome alone, half of women arrived accompanied by one or more close family members. This is undoubtedly related to the fact that all females of the sample came in Rome to reach their husbands because in order to family reunification.

As we noted earlier, an important characteristic of Bangladeshi population living out of their country of origin, is the existence of chain migration, characterized inter alia by the solidarity with new incomers (help in finding a job, an accommodation, etc.). That regards especially a kind of assistance at the very first arrival from those who are already settled and knowledgeable about new place of living to those who just arrived. The system of chain migration accelerates the process of Bangladeshi immigration and represents one of the factors that are behind the marginal increase of this community in last decades.

In fact, the survey confirms this importance of the network of friends and relatives in the migration process. As shown Table 30 overwhelming majority of interviewees (93% of males and 100% of females) received some kind of help or assistance once they arrived in Rome. Nevertheless, the origin of the network of the assistance differs notably by gender. Related principally to the family reunion motive of immigration, all women reported receiving help from close family members (husbands). Unlike women, only one third of men received assistance from close family members (in case of men they were mainly siblings), more than 40% from distant relatives (especially cousins) and 36% from friends or acquaintances. In any case, this huge support from relatives and friends suggests the validity of the assertion that the migration to Rome is a location-specific phenomenon in Bangladesh.

	Received_	d Who helped at arrival (%)					
Gender	any help at arrival (%)	close family	other relatives	${\bf Bangladeshi} \\ {\bf friends/acquaint.}$			
Male	93.1	30.7	41.8	36.1			
Female	100.0	100.0	-	-			
Total	94.3	43.1	34.3	29.6			

Table 30 Bangladeshi respondents by who helped them at arrival, Rome, 2013. Percentage values (multiply response question)

Source: own elaboration on the BSS 2013

The prevalent forms of help from other Bangladeshi members are shown in Table 31. Nearby 85% of all respondents declare that after arrival they have been helped to find an accommodation and one quarter of the sample had a free accommodation. The help in finding a job have received one third of Bangladeshi males. Additionally, almost 60% of the sample declares to have received a psychological support and almost half of all respondents a financial support after their arrival to Rome.

	Find an	Provide a free	Find	Give a	Give a
Gender	accomm-	$\operatorname{accommodation}$	a job	financial	psychological
	odation	when arrived	a job	$\operatorname{support}$	$\operatorname{support}$
Male	83.1	25.5	33.6	45.7	59.0
Female	86.5	24.5	7.7	56.6	52.8
Total	83.7	25.3	29.7	47.6	57.9

Table 31 Bangladeshi respondents by type of received help on the arrival, Rome, 2013. Percentage values (multiply response question)

Source: own elaboration on the BSS 2013 $\,$

As we have seen, the majority of Bangladeshis have received a help related to finding an accommodation. In Table 32 is possible to observe how changed the channels through which the Bangladeshi respondents found the first (after arrival) and the current (at the moment of the survey) accommodation. While in the case of the first accommodation, we can see that practically half of respondents have found it through the channel of relatives and slightly less part through the channel of friends and acquaintances. Compared to the first accommodation, when searching for the current one, it is notable an increased proportion of Bangladeshis who found the accommodation without any help and we can see that in this case the majority found their accommodation through the channel of their friends or acquaintances.

Table 32 Bangladeshi respondents by the channel through which they found the first and the current accommodation, Rome, 2013. Percentage values

Who helped to find an accommodation	First	Current
No one	0.3	19.1
Bangladeshi relatives	49.7	34.1
Bangladeshi friends/acquaintances	45.5	41.1
The employer	1.0	1.6
Voluntary and non-profit associations	1.3	1.6
Other immigrants	1.0	0.6
Italians	-	1.0
Other	1.3	1.0
Total	100	100

Source: own elaboration on the BSS 2013 $\,$

In fact, in Table 33 we can observe that according to duration of residence in Rome, the share of Bangladeshis who found their current accommodation without any help is almost two times higher for long settled respondents respect to the Bangladeshis who stay in Rome less than five years. Opposite trend suggest the respective share in the case of the channel of relatives and of friends and acquaintances. The recently arrived respondents use more these two channels than the long settled respondents. Interesting is the distribution concerning type of tenure. More than 40% of owners profited from the help of relatives and 33% from the help of friends and acquaintances. Similarly, the majority of renters with contract used the channel of relatives to find the current accommodation.

Table 33 Channel through which the Bangladeshi respondents found the current accommodation by duration of residence, legal status, housing tenure and persons per room, Rome, 2013. Percentage values

	Who helped to find the current							
Characteristics -	accommodation $(\%)$							
	No one	Relatives	Friends/ acquaintances	Other	Total			
Total	19.1	34.1	41.1	5.7	100			
Duration of residence								
$<\!\!5$	13.6	36.4	42.9	7.1	100			
5-9	21.2	32.7	41.6	4.4	100			
10+	27.9	31.1	36.1	4.9	100			
Legal status								
Regular	17.3	38.7	37.0	7.0	100			
Irregular	25.0	19.4	54.2	1.4	100			
Housing tenure								
Own	16.7	41.7	33.3	8.3	100			
Rent with contract	18.5	59.3	16.0	6.2	100			
Rent without contract	19.4	24.8	50.5	5.4	100			
Persons per room								
1-2	7.9	52.8	22.5	16.9	100			
2+	23.2	26.8	48.7	1.3	100			

Source: own elaboration on the BSS 2013

Slightly different is the channel that used the renters without contract, half of them found the current accommodation with help of friends or acquaintances. Additionally, less overcrowded households seems to be associated with the channel of relatives and overcrowded households to the help of friends or acquaintances.

4.2.10 Plans and projects for the future

When describing the character of the community, it is also necessary to take into consideration the projects and plans that the individuals have for the future. Are they planning to remain, to move toward another destination or to come back to their country of origin? In the questionnaire we asked about how long they think to remain in Rome and then the specific projects they might have plan in next one year. Overall, when considering all the respondents, more than half of them have not decided yet, probably evaluating the situation and their possibilities in Rome. The majority (90%) of those who decided to remain have an intention to remain for a long time, others indicated to remain for less than 10years. In Table 34 we can see that almost half of the Bangladeshis that are not married plan to get married next year.

		% of the	ose who plan t	0
Characteristics	get married	have a child	bring family member(s)	buy an apartment
Total	47.3	18.5	8.0	12.8
Gender				
Male	47.3	19.5	9.6	12.6
Female	-	13.5	-	13.5
Duration of residence				
$<\!5$	54.0	20.7	5.7	10.0
5-9	35.0	23.0	12.4	14.2
10+	28.6	6.5	4.9	16.4
Legal status				
Regular	39.6	16.9	8.7	14.0
Irregular	59.5	23.6	5.6	-

Table 34 Bangladeshi respondents by their plans for next 12 months, Rome, 2013. Percentage values (multiply response question)

Note: in option of getting married are considered only not married respondents Source: own elaboration on the BSS 2013

As abovementioned, this seems to be a decision that is not determined by the fact that the respondent is in Italy or in Bangladesh. We can see that almost 10% of Bangladeshi men plan to bring another family member(s). The highest proportion when considering duration of residence is among respondents who stay in Rome between five and nine years.

4.3 Housing conditions of Bangladeshis in Rome

In this chapter we investigate diverse aspects of housing conditions of Bangladeshis living in Rome. In order to go beyond the descriptive analysis and to explain the effect of various characteristics on three different aspects of housing conditions, logistic regression models were applied on a weighted sample of the BSS. Therefore, we aim to assess how far the selected characteristics determine three aspects of housing conditions of Bangladeshis in Rome. These aspects are (1) having an accommodation contract, i.e. living regularly in a current accommodation, (2) living in a not so highly overcrowded household, i.e. living in an accommodation with two or less persons per room, and (3) being satisfied with a current accommodation.

It is important to emphasize that in the models was considered only the male component of the sample, firstly because of a rather small proportion of female respondents, and secondly because of their relative homogeneity in terms of marital status, living arrangements, etc. Moreover, the fact that the Bangladeshi immigrants in Rome are predominantly male seems in this respect to endorse this choice. Thus, the explanatory analysis regarding the housing conditions is carried out only for the male component of the BSS sample, represented by 261 Bangladeshi male respondents.

First, we introduce the selected variables that are included in the models. Afterwards, we present the results of the three models.

Selection of the variables used in the models

Firstly, we describe the three models and the variables that are included in these models. As abovementioned, all the models are constructed in order to explore the characteristics that may have an effect on 'better' housing conditions of Bangladeshis in Rome. For this purpose, some categories in the dependent variables were recoded.

The first model aims to explore what effects have the selected characteristics on the respondents' probability to have an accommodation contract. In this case, the dependent variable is based on the question "*Do you have a lease contract? Yes, no*" and we test the probability of Bangladeshi interviewees to be present regularly in their accommodation.

The second model refers to the crowding of respondents' households. The dependent variable was originally a discrete variable that has been converted into

two categories using the threshold of two³¹ persons per room to define a 'not so highly overcrowded household' (two or less persons per room) and an 'overcrowded household' (more than two persons per room). This model investigates how different variables affect the probability to live in a not so highly overcrowded household.

The last, third model is aimed to assess determinants of how Bangladeshi respondents are satisfied with their accommodation. To study this aspect, respondents were asked "Are you satisfied with your current accommodation?" with suitable answers on a five-point Likert scale ('very satisfied', 'quite satisfied', 'neither satisfied nor unsatisfied', 'quite dissatisfied', 'very dissatisfied'). For the purpose of this analysis, the five categories were grouped to create a dummy variable with value 0 indicating that the respondents are 'dissatisfied' (very satisfied and quite dissatisfied) and value 1 for being 'satisfied' (very satisfied, quite satisfied and neither satisfied nor unsatisfied). This conversion is mainly due to the very unbalanced frequency distribution of respondents on the five categories, with very small proportion of the population is in the extreme categories ('very satisfied' and 'very dissatisfied').

The covariates used in the three models were selected from potential determinants of abovementioned dependent variables available from the BSS data. They can be generally grouped into three categories: socio-demographic, housing and migration characteristics.

Socio-demographic features include age, marital status ('not married', 'married') and educational level. Education is given by the highest achieved level of education and for the purpose of this analysis two categories 'up to secondary' (primary, junior secondary or secondary) and 'higher secondary and tertiary' (higher secondary or tertiary) were defined.

In the case of housing characteristics, we take into account five variables. The first feature concerns a composition of the household and it is based on the combination of two questions (1) "Who usually lives in the house/apartment where do you live in Rome? Just me, family members, unrelated persons, other persons", and (2) "How are members of this household related to you? Husband or wife, son or daughter, brother or sister, mother or father, cousin (in first or second grade), cousin (in third or fourth grade), unrelated but known each other before leaving Bangladesh, unrelated but came from the same city in Bangladesh, unrelated at all, other". In this way we specify the respondents' relationship to other household members. Since no

³¹ Taking into consideration the relevant literature and the uneven distribution of respondents according to the number of persons per room we established the two persons per room as a threshold to indicate overcrowded households.

respondent stated to live alone or with other persons, the response has been recoded only into three categories ('with nuclear family and/or close relatives', 'with friends and/or acquaintances' and 'with unrelated').

The economic aspect of housing is considered by the variable of average monthly rent expenses. In the original question "What are the average monthly expenses for rent of the accommodation of your family (or yours, if you live alone)?" respondents could select one of six options to define the rent amount ('1-199Euro', '200-399Euro', '400-599Euro', '600-799Euro', '800-999Euro', '1000Euro and more'). Nevertheless, these six groups have been recorded in two categories ('less than 400Euro'and '400Euro and more'). Firstly, because of the limited size of the study population, secondly in order to fix a threshold that would distinguish households with 'relatively low rent' from 'rather expensive' households.

The last housing characteristic concerns the social network channel throughout which Bangladeshi respondents found their current accommodation. Information on this aspect is gathered through a question "Who helped you to find your current accommodation in Rome?" offering to respondents nine response options ('an employer', 'public structure', 'voluntary and non-profit associations', 'Bangladeshi family and relatives', 'Bangladeshi-unrelated', 'other immigrants', 'Italians', 'only by myself, other'). In order to focus on the most frequent social network channels of Bangladeshis, the responses have been converted into three categories: 'Bangladeshi relatives', 'Bangladeshi friends/acquaintances' and 'no one'.

The last two covariates (used in the models where not used as a dependent variable) are represented by a regular presence in the accommodation (existence of a lease contract) and by the number of persons per room ('two or less persons per room', 'more than two persons per room'). Overall, except age, all variables were included in the analysis as categorical. The description of all variables used in the above-described models is contained in Table 35.

Variable	Categories	Freq	%
Age ^a	continuous		33.4
Marital status			
	not married (ref.)	90	34.5
	married	171	65.5
Education			
	up to secondary (ref.)	160	61.3
	higher secondary and tertiary	101	38.7
Duration of residence			
	<5 years (ref.)	113	43.3
	5-9 years	94	36.0
	10+ years	54	20.7
Legal status			
	irregular (ref.)	71	27.2
	regular	190	72.8
Household composition			
	with nuclear family and/or close relatives	47	18.0
	with friends and/or acquaintances	108	41.4
	with unrelated (ref.)	106	40.6
Persons per room			
	less or equal to 2 persons per room	50	19.2
	more than 2 persons per room (ref.)	211	80.8
Area of origin			
	Dhaka	128	49.0
	Chittagong	77	29.5
	other (ref.)	56	21.5
Who helped to find current accommodation			
	Noone	66	25.3
	Bangladeshi relatives	66	25.3
	Bangladeshi friends or acquaintances (ref.)	129	49.4
Average monthly rent amount			
	$<400\mathrm{Euro}~(\mathrm{ref.})$	233	89.3
	400Euro and more	28	10.7
Accommodation contract			
	without contract (ref.)	203	77.8
	with contract	58	22.2
Satisfaction with current accommodation			
	satisfied	106	40.6
	dissatisfied (ref.)	155	59.4
Total		261	100.0

Table 35 Description of the variables used in the analysis, Bangladeshi male respondents, Rome, 2013

Note: (a) Since the variable of age is included in models as a continuous variable, the mean age is shown. Source: own elaboration on the BSS 2013

Living in an accommodation with a contract

In the first model we explore the effect of the selected characteristics on the probability of the Bangladeshi respondents to have an accommodation (rent) contract in the household where they live. As shown in the previous chapter (Chapter 3.1), fairly large part of the interviewed Bangladeshis does not have a regular accommodation contract. Among the male respondents, only little more than 22% live in regular housing conditions. However, the survey shows that this condition changes with respect to different characteristics, such as duration of residence, presence of family members, etc. Nevertheless, we do not include the legal status variable among the explanatory variables, because those who are regular in the housing are conditioned by the fact of staying regularly in Italy.

The model exploring the probability of having an accommodation contract is shown in Table 36. As we can see there are no significant effects of age, marital status, household composition and the area of origin. Thus, there are no significant differences between Bangladeshi male respondents who have and those who do not have an accommodation contract when controlling for these characteristics.

The variable of the education, on the other hand, has a positive effect. Specifically, we can see that Bangladeshi males with a higher education level are over three times more likely to live in an accommodation regularly than those with the lower education.

Not very surprising is the outcome concerning the duration of residence. The model shows that the lower is the duration of residence in Rome the lower is the probability for a Bangladeshi to have an accommodation contract. This is likely to be related to the fact that with increasing length of stay in Rome there is a tendency (or necessity) to become more regular, naturally including the housing conditions.

As one would expect, the Bangladeshi respondents who in average pay monthly more than 400 Euro for rent are almost six times more likely to have a contract than those who have lower monthly rent expenses.

Very interesting outcomes are related to the effect of the network channel with which Bangladeshi males obtained their current accommodation. Both the channel of relatives and no channel (the interviewees who found the accommodation without a help of two mentioned channels) result to have significantly higher probability to live in the accommodation under regular conditions respect to Bangladeshis who found their lodging through the channel of Bangladeshi friends and acquaintances.

Variable	OR	IC 95%	<i>p</i> -Value
Age	0.96	0.89 - 1.04	NS
Marital status			
Never married (ref.)			
Married	0.79	0.30 - 2.09	NS
Education			
Up to Secondary (ref.)			
Higher Secondary and Tertiary	3.14	1.38 - 7.17	**
Duration of residence in Rome			
<5 years (ref.)			
5-9 years	0.06	0.02 - 0.23	***
10 years and more	0.11	0.04 - 0.35	***
Household composition			
With unrelated (ref.)			
With nuclear family, close relatives	2.68	0.97 - 7.39	NS
With friends, acquaitances	0.52	0.21 - 1.31	NS
Area of origin			
Other (ref.)			
Dhaka	0.95	0.34 - 2.69	NS
Chittagong	2.54	0.89 - 7.28	NS
Who helped to find current			
accommodation			
Bangladeshi friends, acquaitances (ref.)			
Bangladeshi relatives	3.57	1.33 - 9.55	**
No one	3.14	1.17 - 8.42	*
Rent amount			
$<400\mathrm{Euro}~(\mathrm{ref.})$			
400Euro and more	5.79	1.86 - 18.02	***
Sample size (weighted)			261
-2 Log Likelihood			180.04
Pseudo Nagelkerke \mathbb{R}^2			0.48

Table 36 Odds ratios (OR) for Bangladeshi male respondents living in an accommodation with a contract, Rome, 2013

Note: The overall significance of the model *** p<0.001, ** p<0.01, *p<0.05, NS non significant Source: own elaboration on the BSS 2013

The literature focusing on the determinants of regular housing situation in this context is very scarce and thus we cannot compare our results to outcomes of other research.

Living in a less overcrowded household

In the second model we assess the effect of the selected characteristics on the probability of Bangladeshi males to live in a 'not so highly crowded households', i.e. in households with two or less persons per room. From 261 males interviewed in the survey, 80% live in households with more than two persons per room. In coherence with the findings of the existing literature showing the Bangladeshi group as one of the minorities with the highest incidence of crowding (e.g. Choi 1993; Myers *et al.* 1996; Peach 1998), the data of the BSS suggests that the overcrowding issue regards also the Bangladeshis in Rome.

The Table 37 shows that the effect of age, marital status, household composition, area of origin and the existence of accommodation contract are not significantly different in this model.

However, controlling for these variables, the education shows a significant impact on the overcrowding level, and we can see that the highly educated Bangladeshi respondents are three times more likely to live in less crowded conditions. Also in this case, higher education level contributes positively to the propensity (and probably the willingness) to live in better housing conditions.

The effect of duration of residence is reversed; the longer is the length of stay the lower is probability to live in a less overcrowded household. This may seem an unexpected result, but considering that the Bangladeshis who manage to bring their wives and children to Rome prefer to live in smaller but affordable places that allow them to live all together even at the cost of sharing one apartment with another family or relatives.

Significant results also the effect of the variable regarding the regular or irregular presence in Rome. As one would expect, the Bangladeshis who are present in Rome regularly are more likely to live in less overcrowded households than the irregular ones. This is closely related also to the average monthly rent. Those who spend more for the rent expenses have higher probability to live in a less overcrowded household.

Variable	OR	IC 95%	<i>p</i> -Value
Age	1.05	0.98 - 1.12	NS
Marital status			
Never married (ref.)			
Married	1.71	0.64 - 4.56	NS
Education			
Up to Secondary (ref.)			
Higher Secondary and Tertiary	3.01	1.43 - 6.31	***
Duration of residence in Rome			
<5 years (ref.)			
5-9 years	0.37	0.16 - 0.89	**
10 years and more	0.19	0.05 - 0.71	**
Regular or irregular			
Irregular (ref.)			
Regular	2.78	1.07 - 7.27	**
Household composition			
With unrelated (ref.)			
With nuc.family and/or close relat.	0.74	0.26 - 2.11	NS
With friends and/or acquaitances	0.79	0.36 - 1.72	NS
Area of origin			
Other (ref.)			
Dhaka	1.07	0.46 - 2.65	NS
Chittagong	1.04	0.39 - 2.76	NS
Who helped to find current acc			
Bangladeshi friends, acquaitances (ref.)			
Bangladeshi relatives	2.66	1.12 - 6.33	**
No one	1.26	0.51 - 3.09	NS
Rent amount			
<400Euro (ref.)			
400Euro and more	3.94	1.20 - 12.93	*
Accommodation contract			
Without contract (ref.)			
With contract	1.03	0.40 - 2.66	NS
Sample size (weighted)			261
-2 Log Likelihood			219.64
Pseudo Nagelkerke R^2			0.21

Table 37 Odds ratios (OR) for Bangladeshi male respondents living in less overcrowded households, Rome, 2013

Note: The overall significance of the model ***p<0.001, **p<0.01, *p<0.05, NS non significant Source: own elaboration on the BSS 2013

Important is the position of distinct social networks that are in some way related to different housing conditions. In fact, Bangladeshi males who used the channel of relatives when looking for the accommodation are more than two times more likely to live in better conditions that those who found it through the channel of Bangladeshi friends and acquaintances. Also in this case, the channel of friends and acquaintances seems to be associated with worse housing conditions.

The results of this model show that there can be found differences related to the education, legal status, duration of residence, the rent expenses and the channel throughout which the Bangladeshis accessed their accommodation. Similar findings have been found in the literature, i.e. the housing outcomes of immigrants are largely determined by their socioeconomic status, especially income and education levels, rather than nativity or immigration status (Friedman and Rosenbaum 2004).

Satisfaction with the accommodation

The last model concerns the satisfaction of Bangladeshi respondents with their current accommodation. In this case we investigate the effect of selected characteristics on the probability of Bangladeshis being satisfied with the place where they live. Only less than half of the study population (40% of Bangladeshi male interviewees) is satisfied with their accommodation.

The model results are presented in Table 38. We can see that there is no significant effect of age, marital status and household composition and furthermore there are no significant differences related neither to duration of residence nor the legal status.

Nevertheless, we can observe that the educational level has a significant negative effect on the residential satisfaction. The Bangladeshi males with higher education tend to be less satisfied than those who are less educated. As observed also in other research literature persons with higher education have usually higher expectations to their housing conditions and therefore tend to be less satisfied (Dekker *et al.* 2011).

Expectedly, the interviewees who have an accommodation contract are almost three times more satisfied than those who are in irregular housing situation. This is associated with the fact that the Bangladeshi interviewees with a monthly rent expenses higher than 400 Euro tend to be more satisfied than those having lower rent expenses. This suggests that the lower expenses for rent the worse their housing conditions. In fact, the relation between satisfaction and the crowding level results to be significant. The Bangladeshi males that live in a less crowded household are more four times more likely to be satisfied respect to those living in highly overcrowded households.

Variable	OR	IC 95%	<i>p</i> -Value
Age	1.04	0.98 - 1.11	NS
Marital status			
Never married (ref.)			
Married	0.68	0.30 - 1.50	NS
Education			
Up to Secondary (ref.)			
Higher Secondary and Tertiary	0.51	0.26 - 1.00	*
Duration of residence in Rome			
<5 years (ref.)			
5-9 years	1.85	0.85 - 4.01	NS
10 years and more	1.29	0.43 - 3.85	NS
Regular or irregular			
Irregular (ref.)			
Regular	1.28	0.59 - 2.78	NS
Household composition			
With unrelated (ref.)			
With nuclear family, close relatives	1.00	0.39 - 2.60	NS
With friends, acquaitances	0.57	0.29 - 1.11	NS
Persons per room			
More than 2 persons per room (ref.)			
Less than 2 persons per room	4.16	1.86 - 9.30	***
Area of origin			
Other (ref.)			
Dhaka	1.34	0.59 - 3.05	\mathbf{NS}
Chittagong	2.64	1.10-6.31	**
Who helped to find current acc			
Bangladeshi friends, acquitances (ref.)			
Bangladeshi relatives	2.02	0.95 - 4.31	*
No one	0.39	0.17 - 0.88	**
Rent amount			
$<400 \mathrm{Euro} \ \mathrm{(ref.)}$			
400Euro and more	3.73	1.14 - 12.22	**
Accommodation contract			
Without contract (ref.)			
With contract	2.79	1.20 - 6.51	**
Sample size (weighted)			261
-2 Log Likelihood			271.61
Pseudo Nagelkerke \mathbb{R}^2			0.36

Table 38 Odds ratios (OR) for Bangladeshi male respondents being satisfied with the current accommodation, Rome, 2013

Note: The overall significance of the model ***p<0.001, **p<0.01, *p<0.05, NS non significant Source: own elaboration on the BSS 2013

Looking at the channel throughout which the interviewees found their accommodation, the housing satisfaction seems to be related also to the presence of family members or persons they know. For instance, Bangladeshis who found their accommodation through the channel of relatives are likely to be twice satisfied respect those who found the lodging with help of Bangladeshi friends or acquaintances. The importance of the family and friends is implied also by the fact that Bangladeshis that found their accommodations alone, without any help, are significantly less satisfied than those who used the friends/acquaintances channel. This may, to a certain extent, explain the satisfaction with the accommodation even if not living with family members. The presence of friends or acquaintances provides in any case an important social support. This is consistent with the existing literature showing that the network plays an important adaptive role by providing a friendly social environment in a new location, reflected also in higher residential satisfaction (Faist 2000, Propa 2007).

We find also very interesting the results that are related to the respondents' area of origin. The Bangladeshis originated from the southeastern area of Bangladesh, Chittagong, tend to be more much more satisfied with their accommodation then the respondents born in other parts of the country (except Dhaka). The Chittagong district is one of the most vulnerable and risk prone districts of Bangladeshi to disaster and climate change (Ali 1999), and according to the data of the Bangladeshi Population and Housing Census 2011, for example only 35% of the Chittagong's households have electricity (IPUMS 2015). In this respect we assume that even though the living conditions of Bangladeshis in Rome do not appear very favorable, the very poor conditions and in particular the ongoing risk of natural disasters in the area of origin might partially explain this rather positive attitude.

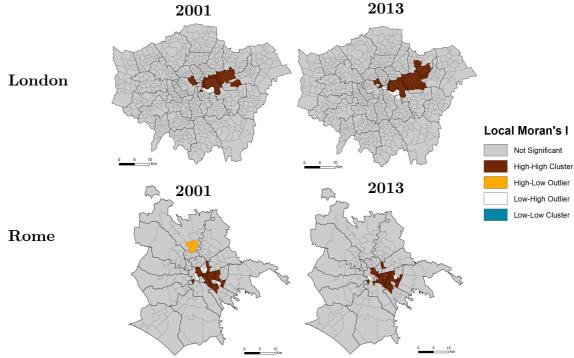
Additionally, it is important to take into account the fact, as shown in the literature, that the norms influencing household size, household composition and with that connected different expectations can be culturally contingent, often resulting in a higher tolerance for specific housing conditions (Myers *et al.* 1996).

5. Bangladeshis in Rome versus Bangladeshis in London: a comparative analysis

In this chapter we focus on the comparative analysis of Bangladeshis living in London and Bangladeshis living in Rome. Firstly, we investigate if there exist any spatial similarities between the areas with the high clustering of Bangladeshis, and we describe the character of the areas of original migration. Subsequently we explore the differences in relation to specific demographic and housing characteristics.

4.1 Geographical and urban context of Bangladeshi settlement areas

As we can see in Map 20, between London and Rome, there is more than evident similarity in the geographical location of the areas of Bangladeshi settlement clusters. In both of the urban areas, Bangladeshis tend to be clustered close to the city centre and mainly in the eastern parts of the inner city areas, extending then to the northeastern part in the case of London and to the southeastern part in the case of Rome.



Map 20 LM-I of Bangladeshis, London and Rome, 2001 and 2011

Source:own elaboration on UK Census data 2001 and 2011, Italian Census data 2001 and Population Register data of Rome 2013

As mentioned in Chapter 3.3.1, the local clusters as well as the direction of expansion of the areas are associated in London with the dependency on social housing, in Rome with availability of affordable housing and in both cases with channeling effects of chain migration and the desire for proximity to other Bangladeshis.

In the literature (Murdie and Gosh 2010), very similar result has been found in Toronto, where the areas of Bangladeshi settlement result to be located in the eastern part of the inner suburbs.

The similar spatial localization in different urban contexts might be a coincidence, but we assume that the areas of high clustering of Bangladeshi population are in the two cities spatially related to the initial settlement areas of Bangladeshis, and to understand the localization it is necessary to investigate first of all the character and the history of the areas of original migration.

Tower Hamlets

The area of initial settlement of Bangladeshis in London in undoubtedly associated with a borough of Tower Hamlets. Traditionally dockland area hit a peak at the turn of the 19th and 20th centuries, with trade through the docks at a high, industry continuing to develop. At the time large Jewish community employed in the clothing represented large portion of the population of Tower Hamlets and footwear trades (Tower Hamlets Borough 2005). Nevertheless, during the Second World War, half of the housing stock in the borough was destroyed and led to a mass exodus from the borough. In fact, in the 1950s, also the increasing middle class Jewish community that moved out to the more wealthy northern part of London (Phillips 1988). Moreover, the decline of the docks related to the increasing mechanization after the end of the war and in its consequence large warehouses became redundant, leaving a vast area of deserted or demolished buildings.

In this context, in the 1950s and early 1960s arrived the first mass of Bangladeshi migrants from Sylhet settled mainly in Spitalfields, an area of Tower Hamlets borough (Carey and Shukur 1985). The proximity to the city centre together with cheap accommodation made this borough ideal for settling in. Most of these Bangladeshi immigrants were single men, often from the same village or family, speaking little English, moving through chain migration and sharing the same religious and dietary requirements (Aftab 2005). The cheap city housing fitted their requirements for accommodation also because in the process of chain migration the established kinsmen facilitate the migration of their relatives of fellow villagers particularly regarding finding employment and accommodation (Dahya 1967). Later the council housing present in the area corresponded the requirements of families who migrated later. In this context, Hillier (1996) suggests that in that time the council housing resulted in different areas in an enclosure and fragmentation of the estate from the rest of the urban structures.

In the 1980s there have been the first initiatives to regenerate the vast redundant areas and more than successful was for example the development project of large post-modern commercial architecture in Canary Wharf (Tower Hamlets Borough 2005). The gentrification projects continues and it seems that, in some of its areas, the borough has been undergoing an important urban regeneration that could help to change its bad reputation and the fact of being one of the most deprived borough area in London.

Esquilino and Tor Pignattara

On the basis of the existing literature (Knights 1996, Pompeo 2011) we can establish areas of Esquilino and Tor Pignattara as areas of initial settlement of Bangladeshis in Rome.

Esquilino is a district located in the Rome's city centre. In the early 1970s, before the arrival of the first foreign immigrants, the Esquilino was an urban slum deserted by its Italian residents. The decline of the Esquilino district began in the 1960s and 1970s when the residents and the municipal administration stopped refurbishing and using its parks and housing stock (Mudu 2006). Consequently, since proper care was not given to these public spaces, gradually, they became abandoned over time. Since then, with the increasing influxes of immigrants, Esquilino became an important multi-ethnic district, characterized by heavy presence of ethnic-based businesses.

Tor Pignattara, on the other hand, is a district situated in the eastern part of Rome, and at the beginning of the twentieth century it was a place of internal migration from central and southern Italy (Pompeo 2011). However, historically has been associated rather with working class and mainly of ill repute. In the 1980s Tor Pignattara registered a significant fall in its population, inter alia, due to high criminality present in the area. The influx of Bangladeshis into this district started approximately in the mid-1990s, when an exodus of the original inhabitants became even more intensive (Broccolini 2014).

Today, Tor Pignattara is a multiethnic district with different groups of population living together and sharing a common urban space. There are old Italian inhabitants (who leave their houses and shops to move elsewhere), there are recently arrived new Italians, mostly young couples and students, and there are nearly 18% of foreign residents, originating from many different countries, mainly from Bangladesh, China, Philippines, Romania, Senegal and Peru (Fioretti 2011).

Often being called 'Rome's Banglatown', the presence of Bangladeshi community in some parts of Tor Pignattara has had an evident impact on the urban environment, not only by means of many ethnic shops, restaurants, money transfer, Internet and phone centres and places of worship, originating from the capacity of the Bangladeshis to be active entrepreneurs and strong supporters of community life. The housing stock in this Rome's district is fragmented, grown in spontaneous and deregulated way. In the first half of the twentieth century numerous traditional mainly illegal self-built neighborhoods were built, then in the period after the First World War were constructed mainly working-class estates and all these were replenish with the diverse type of buildings in the second post-ward period. Due to scarce quality of constructions, nowadays the building environment is mainly poor, showing signs of decay and characterized by very weak public intervention (Fioretti 2011). Nevertheless, according to Pompeo (2011) the present foreign population plays a crucial role in development and social transformation of the area of Tor Pignattara.

Comparison of areas of original migration

The comparison of the original settlement of Bangladeshis in London and Rome shed light on the fact that besides the similarity in the spatial localization of areas of Bangladeshi settlement clusters, there can be found also similarities that are associated with the character of the original migration areas and the process that accompanied the initial settlement of Bangladeshi immigrants.

In both cities, the areas of the settlement of the first predominantly single male Bangladeshi immigrants can be defined as areas partially abandoned by its previous inhabitants, by large Jewish community in the case of Tower Hamlets, by Italians in the case of Esquilino and by immigrants from central and southern Italy in the case of Torpignattara. All these areas were at that time characterized by the urban degradation and were reasonably unattractive for residents of other areas in the city. The immigrants from Bangladesh, as well as immigrants from other countries used this opportunity of available and affordable housing (due to the residential unattractiveness, the housing costs were lower respect to other areas) and started to settle in these city areas. Another similarity that can be found among Bangladeshis in London and Rome is the typical urban transformation, a sort of 'personalization' of the settlement areas by means of large network of ethnic based businesses that ensure all the necessities and requirements of Bangladeshi community.

4.2 Demographic structure and housing characteristics

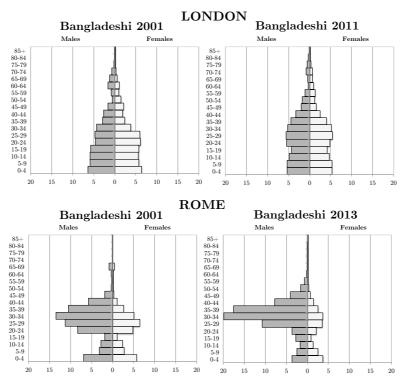
As aforementioned, a comparison of data of different countries represents a difficult task and equally problematic is also the availability of comparable data. In this chapter, we compare different characteristics, including those concerning housing conditions of Bangladeshis in the two cities. In the case of Rome, not all necessary data related to housing situation were available, and therefore we used the results of the survey BSS. In this respect, it is important to highlight again, that the sample of the survey is quantitatively limited and the results may not correspond entirely to the situation of total population. However, we believe that this information allows us, to some extent, to shed light on the housing situation of Bangladeshis in Rome.

Age structure of different populations presents a rich source of information about the analyzed populations. As we can see in Figure 21, the form of pyramid of Bangladeshi population in Rome is very different to that of Bangladeshi population in London, showing clearly that the community is noticeably more recent in terms of migration respect to the Bangladeshi community in London and evident is also a striking predominance of males, particularly in central groups of working age (25-49 years).

Furthermore, difference can be found in terms of the overall evolution between 2001 and 2011. In London we can notice the reduction of the base of pyramid and notable is also the increase in the proportion of Bangladeshis over 20, which are Bangladeshis who were probably born already in the UK or arrived in London in early ages.

In Rome, the mass male migration of Bangladeshis to Rome is mirrored in the huge increase of the proportions in the age groups 25-49, particularly then in age groups 30-39. These two groups represent almost 40% of total Bangladeshi population present in Rome. However, the age structure is characterized by the wide base with the proportions that progressively decrease up to age group 10-14 and starts to increase again in the working ages.

Figure 21 Age pyramid of Bangladeshi population in London and in Rome, 2001 and 2011. Percentage values



Source: own elaboration on UK Census data 2001 and 2011, Italian Census data 2001 and Population Register data of Rome 2013

While in the case of London, the changes in the age pyramids between 2001 and 2011 may be explained mainly by a natural change and, in comparison with the previous decades, only negligibly by migration; in Rome, as evident from Figure 21, is a migration, that have a crucial influence on the changes to the age structure of Bangladeshi population in Rome.

The different structures of the Bangladeshi population in London and in Rome are suggested also by differentiations in the average age. As we can see in Table 39, the age structure of Bangladeshis living in Rome is slightly older than of those living in London in both 2001 (24.4 years and 25.3 years, respectively) and in 2011 (26.8 and 29.4 years, respectively).

-		2001		2011^{a}			
	Male	Female	Total	Male	Female	Total	
London							
Bangladeshi population	76,742	$77,\!141$	$153,\!893$	114,313	$107,\!814$	$222,\!127$	
%	49.9	50.1	100.0	51.5	48.5	100.0	
Mean age	24.9	23.9	24.4	27.0	26.6	26.8	
Age							
0-14	36.2	35.3	35.8	30.3	31.5	30.9	
15-64	59.4	62.6	61.0	65.3	64.5	64.9	
65 and over	4.4	2.1	3.2	4.4	3.9	4.2	
Total	100	100	100	100	100	100	
Rome							
Bangladeshi population	$2,\!103$	1,021	$3,\!124$	19,796	$5,\!850$	$25,\!646$	
%	67.3	32.7	100.0	77.2	22.8	100.0	
Mean age	27.2	21.3	25.3	31.3	23.1	29.4	
Age							
0-14	18.9	32.9	23.7	10.3	33.0	15.5	
15-64	79.2	65.8	75.5	89.6	66.5	84.4	
65 and over	1.9	1.4	0.8	0.1	0.5	0.2	
Total	100	100	100	100	100	100	

Table 39 Structure of Bangladeshis in London and Rome, male and female, 2001 and 2011

Note: (a) 2013 for Rome

Source:own elaboration on UK Census data 2001 and 2011, Italian Census data 2001 and Population Register data of Rome2013

In London the average age of total Bangladeshi population increased by 2.4 years. Women have recorded slightly higher increase respect to men, 2.7 years and 2.1 years respectively, but despite this increase, they are, in average, younger than Bangladeshi men (26.6 years respect to 27 years in 2011). The population ageing is confirmed also by increased proportion of over 65, from 3% to 4%.

In Rome, on the contrary, we can observe the decrease in the proportion of over 65 (from 0.8% to 0.2%) caused predominantly by the enormous increase in the age groups 30-39. This increase is related primarily to the arrival of a high number of Bangladeshi adults of working age who migrated to Rome since 2001.

Respect to London, the average age of women is much lower, in 2001 accounting for 21.3 years and in 2011 23.1 years. This is caused mainly by significantly lower proportion of Bangladeshi women in Rome. Thus, the higher increase in average age is observed for men, increasing from 27.2 years in 2001 to 31.3 years in 2011.

Housing conditions

Given the available data, we believe that is interesting to observe first how change the housing conditions between 2001 and 2011 of Bangladeshis living in London. On the basis of the characteristics shown in Table 40, we can observe an improvement related to the housing situation. Firstly, there is evident an increase of owners (from 26% to 31%) and of private renters (from 11% to 21%). Reduction of 14% has been recorded in the share of Bangladeshis living in social rent. Positively may be seen also the rise of Bangladeshis who live in a house, from 36% to 45%, together with the decrease of those who live in a flat.

Improving of housing conditions is notable also from the decreasing share of persons who live in overcrowded households. Even if we consider a threshold of 1.5 persons per room, we can see that the percentage of Bangladeshis living in overcrowded households decreased more than twice (from 19% to 8%).

London	2001	2011
Tenure (%)		
Own	25.7	30.8
Rent	74.3	69.2
Social rent	63.1	48.5
Private rent	11.2	20.7
Accommodation type $(\%)$		
House	36.1	45.1
Flat	63.9	54.9
Persons per room (%)		
Less than 1	59.1	70.7
1-1.5	22.5	21.6
More than 1.5	18.5	7.8

Table 40 Housing conditions of Bangladeshis in London, 2001 and 2011

Source: own elaboration on UK Census data 2001 and 2011

An important aspect when comparing tenure type in two cities are the differences in terms of wider functioning and institutional structure of respective housing markets. While in London, we can observe significant Bangladeshi dependency on social housing, in Rome the social housing sector is very scarce and this fact determine, in terms of type of rent, the predominance of private renters.

The indicator of average number of persons per household has been used to compare the differences related to housing conditions of Bangladeshis in London and in Rome (Figure 22). While in London we can observe a decrease from 4.5 persons in 2001 to 4.0 persons per household in 2011, in Rome in 2013 the average were 8.2 persons per households, indicating twice larger size of Bangladeshi households.

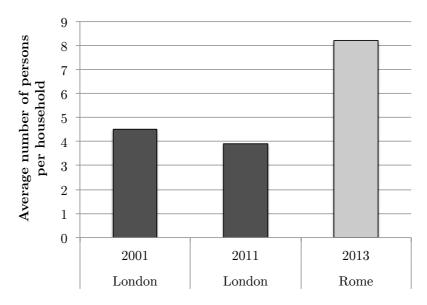


Figure 22 Average numbers of persons per household, London and Rome, 2001, 2011 and 2013

Although we have to take into account the representativeness of the sample in the case of Rome, this result however suggests the fact that Bangladeshis in Rome live in larger households respect to Bangladeshis in London. This in a certain way is coherent with dominance of the households of one nuclear family in London, and of the households characterized by cohabitation of more persons that are either unrelated or distant relatives in Rome.

Household composition

In the two observed cities, substantial differences are observed also regarding the living arrangements. First of all, it is necessary to underline that different origin of data, together with diverse types of household compositions of Bangladeshis in London and Rome result in slightly different typologies employed in the comparison. Secondly, it is also important to emphasize that in Population Register data, numerous part of Bangladeshi residents are recorded as a one-person households, but since all are registered as living in cohabitation and located in the same census tracts, we consider them as households living with unrelated persons.

Source: own elaboration on UK Census data 2001 and 2011 and the BSS 2013 $\,$

The number of Bangladeshi households in London increased from 33,510 households in 2001 to 52,859 households in 2011. In Rome, the number of Bangladeshi households³² in 2013 was 9,299.

As shows Table 41, while in London half of all households are families composed of couples with children, in Rome this type of households account only for 19%. In Rome, on the other hand, the majority of Bangladeshi households are cohabitations of more persons that do not contain a family nucleus, and in most of cases are composed of persons living together without any kinship. The Bangladeshi families living alone in Rome represent 25% of all households, respect to 64% in London. Nevertheless, the presence of family households in Rome suggests that the character of migration from Bangladesh to Rome has been slowly changing from the labour migration of single male Bangladeshis to the family migration and settlement.

Table	41	Household	compositions	of	Bangladeshi	households	\mathbf{in}	London	and
Rome, 2001 and 2011. Percentage values									

Households in London	2001	2011	Households in Rome	2013
Households in London	%	%	Households in Rome	%
One person household: Total	8.2	10.7	No nuclear family: Total	64.4
One family only: Total	68.5	64.3	With relatives	4.3
Married couple: Total	54.0	48.4	With unrelated	60.0
Couple only	4.0	3.9	One family only: Total	24.7
Couple with children	50.0	44.5	Married couple: Total	21.1
Cohabiting couple: Total	2.1	2.2	Couple only	2.6
Lone parent: Total	11.9	13.2	Couple with children	18.6
Other household types: Total	23.4	25.1	Lone parent: Total	3.6
With children	17.4	16.2	One family with others: Total	9.7
			Two or more families: Total	1.2
All households	100	100	All households	100

Source: own elaboration on UK Census data 2001 and 2011, Italian Census data 2001 and Population Register data of Rome 2013

For London we can observe also the development of households composition between 2001 and 2011. It is evident a slight increase in the proportion of one person households, cohabitating couples and lone parents. On the other hand, the reduction has been registered in the share of married couples (by 6%) and couples living with children (by 5%). We assume that these tiny variations might be a sign of a change in the traditional cultural patterns of Bangladeshi population in London associated with the gradually changing attainment of the second generations of Bangladeshis.

 $^{^{32}}$ Households with at least one Bangladeshi member, do not considering the fictitious residences.

The presence of extended families among Bangladeshi households can shed light on how are maintained traditional values and to that related strong family cohesion of Bangladeshi society. We presume that in Rome, the extended families are captured in household types 'one family with others' and 'two or more families', accounting for approximately 11%, in London within a category 'other household types'. Although we are not able to identify them accurately, considering the volume of these categories, we can expect that they still represent a part of the Bangladeshi reality in both London and Rome.

Conclusions

In the literature that focuses on the ethnic spatial segregation can be distinguished different types of studies. On the one side, those that analyze and confront the settlement of more ethnic groups in one urban area or country (Peach 1997), those that examine two or more different cities or countries (Johnston *et al.* 2002; Casacchia *et al.* 2012), and finally there are studies that confront the spatial distribution of one ethnic group in more cities or countries (Özüekren and Van Kempen 1997). This study, in its spatial part, belongs to the last group, analyzing Bangladeshi ethnic group in two diverse urban, social, cultural and historical contexts of London and Rome. The decision to study these two cities originates from the fact, that Bangladeshis living in London and in Rome represent two largest and complex communities among the European capitals (Knights 1998).

In the literature, Bangladeshi population living outside of the country of origin is described as a group that tends to be highly spatially segregated (Owusu 1999; Peach 2006; Phillips 2006). Our research contributes to this knowledge by exploring to what extent differ the explaining factors of the settlement patterns in two different contexts and try to understand if the patterns are related to the place in which Bangladeshi population live or are associated to the cultural preferences and traditions.

The traditional segregation indices show that Bangladeshi population tends to be segregated in both London and Rome, but indicating much higher levels of segregation for Bangladeshis in London. However, in the two cities the indices suggest a decreasing trend in the segregation levels of Bangladeshi group.

Though spatial autocorrelation methods, we analyzed the spatial clusters of Bangladeshi population in London and in Rome, and the development of these clusters between 2001 and 2011. The results show that Bangladeshis are significantly clustered in both cities, reaching relevantly higher intensity of clustering in London (GM-I values around 0.7 in London and about 0.4 in Rome).

Comparing the two urban contexts, our results suggest that the similarity can be found not only in high levels of clustering, but also in the geographical localization of the spatial clusters of Bangladeshi settlement and in the origin and character of areas of original migration. Furthermore, in both London and Rome, there is an evident proximity of initial settlement area to areas of subsequent Bangladeshi settlement. The spatial analysis shows that in London Bangladeshis are clustered mainly in the central city area with an extension to the adjacent borough on its eastern side (Newham), with a recent expansion also to the northeastern part of the city. In Rome, we identified a sort of 'triangle' area of Bangladeshi principal cluster that starts in the centre city and extends along and within Prenestina and Casilina thoroughfares heading towards the southeast of Rome. Moreover, it is observed, that this similarity in geographical localization (i.e. areas in the centre extending to the suburban areas in the northeast or southeast of the city) is closely related to the areas of original migration of Bangladeshi community in London and Rome.

In both cities, the initial settlement of Bangladeshis was associated with rather deprived areas located close to the city centre, that were residentially not very attractive. For this or other reasons these areas were more or less abandoned by its previous inhabitants, by large Jewish community in Tower Hamlets, and by Italians in Esquilino and by immigrants from central and southern Italy in Torpignattara. The deprived character of the areas of initial settlement persists also in subsequent areas of Bangladeshi settlement in both studied cities.

The results regarding the spatial development of Bangladeshi clustering indicate an intensification of the former patterns, as well as a characteristic 'spill up' expansion towards adjacent areas, in London to the northeastern part, and in Rome, to lesser extent, to the southeastern part of the city. However, the spatial expansion is more evident in the case of Bangladeshis in London, whereas in Rome prevails the consolidation of the former patterns.

As abovementioned, a relatively high deprivation is characteristic for Bangladeshi settlement areas in both studied cities, and this is suggested also by the literature (Peach 1998). In Rome the deprivation is partially related to the lack of public policies and attempts for an urban rehabilitation of these areas, resulting in the scarce quality of housing (Fioretti 2011). In London, on the other hand, there have been recently many projects for the gentrification of the city central areas, including the dockland area of Tower Hamlets (Tower Hamlets Borough 2005). Consequently, some parts of this borough have been changing, turning into important commercial and financial centres (Watt 2009). In this respect a debate have emerged with regard to the future development of existing deprived areas inhabited also by Bangladeshis. Until now, the gentrification and the expansion of the City of London have led to more restrictions in housing opportunities for this ethnic group (Eade and Garbin 2002), affecting probably the direction of areas of its settlement. Additionally, we investigated if under the overall patterns of Bangladeshi settlement it is possible to find a relation of the spatial distribution of Bangladeshis and the distribution of selected housing characteristics, specifically housing tenure, accommodation type, overcrowded households and household composition.

The results of London confirm the existence of different settlement patterns related to the combination of selected housing characteristics. The patterns associated with rent housing, and in particular with social rent sector, are almost identical with clusters of Bangladeshis living in a flat, and the significant clusters concerning these characteristics are found especially in the central areas of London (Tower Hamlets and Camden). This suggests that the presence in flats is strongly associated with the Bangladeshi dependency on social housing. This is confirmed also by other research (Peach 1998). The social housing in London is related to rather negative characteristics, such as smaller homes, lower income, higher unemployment rates. higher poverty and higher overcrowding rates (Greater London Authority 2014). This partially explains the Bangladeshi presence in highly deprived areas.

Similar spatial distribution exists also among Bangladeshis in London living in a house and those who own an accommodation. This suggests that these types of housing are clustered towards the more suburban areas, i.e. areas of relatively recent Bangladeshi settlement.

Regarding the composition of households, in London the results suggest a tendency of family suburbanization with one person and lone parent households settled more in central areas. In Rome the analysis does not show a relevant differences.

On the grounds of our results, we believe that Bangladeshi population in both London and Rome follow a culturally pluralistic model, finding support also in previous literature (Peach 1999). It means that Bangladeshis while participating fully in the society where they live, they continue to maintain their traditional social and cultural practices (Peach 2006). This result indicates that the clustering of Bangladeshis in the two cities is related to the cultural traditions and preferences, and to their willingness to live in the spatial proximity to other community members, mainly in order to maintain the social and cultural integrity. Also in this case, similar findings have been found in the literature (Massey 1985; Ghosh 2002). However, in this context we assume that the high spatial segregation of Bangladeshis in London seems to be intensified by means of their high dependence on the social housing. Furthermore, the direction of the spatial expansion is likely to be influenced also by the recent gentrification of the city centre areas of London. However, this assumption will be confirmed only by the future development.

The differences between the same groups in different countries might be an indication of the fact that cultural variables do not play a decisive role in the explanation of patterns of segregation, but that there are other factors that are more important (Van Kempen 2005).

In this respect, our results show that in the case of Bangladeshi group, the cultural preferences have a crucial impact on the character of the spatial distribution, and the influence of contextual factors, such as the distribution of housing characteristics, is not so determinative. Overall, the observed suburban emphasis as well as intense local consolidation of the former patterns is largely due to the dependency on social housing (in the case of London), availability of affordable housing, the channeling effects of chain migration and the desire for proximity to other Bangladeshis (in the case of Rome).

Despite different recency and different relations that have Bangladesh to Italy and to the United Kingdom, we identified a common feature concerning the role of the immigrant legislations on the migration flows coming from Bangladesh. The existing historical ties with the United Kingdom and the missing historical or other ties in the case of Italy, led to a distinct position of a Bangladeshi immigrant in the respective contexts. In London, the majority of Bangladeshis arrived in a regular way and after the introduction of more restrictive immigrant legislation migration flows from Bangladesh were driven by the existing kinship with persons living already in the UK. This had an important, accelerating effect, on the change of the character of the migration flows from Bangladesh, from single men workers to family and relatives migrations. However, as one of its important consequences, Bangladeshi migrants have had an access to the benefits of the British welfare system, such as abovementioned social housing.

Also in Italy the immigrant legislations laws and lax entry controls (King and Knights 1994) played an important role in the establishment of the Bangladeshi community in Rome. Nevertheless, unlike the UK, the substantial part of the migrations of Bangladeshis to Italy has been irregular, regularized then time to time with the different immigrant laws. This fact it is important to take into consideration when comparing these two communities.

In order to understand better the differences between the two communities, in our research we investigated also the differences in the age structure and household composition of Bangladeshis in London and Rome. The results suggest that the two communities are in different stages of a migration process, to a large extent influenced by the recency and the context of the migration flows. While in London, the structure gives an evidence of being a rather long settled immigrant population, Bangladeshi community in Rome is noticeably more recent in terms of migration with the predominance of males, particularly in the central groups of working age. This is reflected also in the composition of Bangladeshi households. While in London the majority of Bangladeshi the households are 'family households' (composed of one nuclear family), in Rome prevail the 'households of cohabitations' (multi-person households of individuals that are either distant relatives or without any kinship). Despite the presence of family households in Rome suggests that the character of migration from Bangladesh to Rome has been slowly changing from the labour migration of single males to the family migration and settlement (throughout family reunion), it is evident that the former type still predominates.

The substantial part of this project represents the realization of an original survey, using Centre Sampling Technique in Foreign Migration Surveys (Blangiardo 1996). With its result, this thesis contributes significantly to the knowledge on the profile of the adult Bangladeshi community living in Rome, providing access to a wide range of information, such as socio-demographic characteristics, family situation, housing conditions, level of education, employment situation in Rome and also before migration from Bangladesh, and also several migration and social network characteristics.

The survey results reveal Bangladeshi interviewees as a relatively young and gender asymmetrical group. This is in coherence with the official statistics data (Population Register 2013). In average, duration of residence in Rome is higher for males than for females, differing roughly in one year. While in London, the majority of Bangladeshis originate in the district of Sylhet (Gardner 1993), the results of the survey show that in the case of Rome the majority came from the district of Dhaka. This shed light on the importance of the effect of chain migration in the development of Bangladeshi community in the two cities.

The abovementioned irregularity of Bangladeshis in Rome is partially evident also in the survey results, and particularly among male component. Almost one third of males are present illegally, showing higher proportion among the recently arrived (almost 50% of those who stayed in Rome for less than five years) and among Bangladeshi males aged under 25 years.

From the survey results is notable also the presence of the traditional cultural values related to family patterns, for example rather low age at marriage of

females (20 years) respect to males (28 years), low economic activity of females, the presence of arranged marriages, the majority of females are housewives, etc. This is coherent with research findings related to Bangladeshi group in different areas (Ballard 1990; Peach 1999; Berthoud 2000). Concerning arranged marriages, more than half of married respondents have not contributed to the decision of selecting their spouse, but it was a family who decided.

Approximately 70% respondents of the sample are married, with only 1% of divorced Bangladeshis. The evidence of the original male labour migration is mirrored also in the fact that only little more than 10% of married Bangladeshi males live with their spouse and eventually children in Rome. More than 60% of Bangladeshis have children, but the majority of these children live with their mother (the spouse of the respondent) in Bangladesh.

The educational level is higher for males than for females, but however, nearly two thirds of the sample has a secondary or lower level of education. Quite low educational qualification of Bangladeshis is found in other research (Eade *et al.* 1996).

Subsequently, we investigated also the employment situation before the migration from Bangladesh. It is observed that more than 85% of the male respondents were economically active, with the majority working in the agriculture and commerce. Therefore, this result suggests that the immigrants seem not to belong to an unemployed and poor Bangladeshis, as suggested also by Carey and Shukur (1985).

Exploring the results of the survey, it seems that main differences regarding most of studied characteristics depend on the respondent's legal status, i.e. if present regularly or irregularly. For instance, exploring the employment situation of male respondents (given a very low economic activity of females they were excluded from the analysis of economic situation), we can distinguish the regular employment conditions on the one side (self-employed and employees with contract) and the irregular ones on the other side (employees without contract and street sellers). The irregularity seems to be associated mainly with the recent (those who stay in Rome only for few years) and with younger migrants.

These differences in legal status are mirrored in the employment characteristics, such as high number of hours worked a week and a low average monthly income. Although very high average number of hours worked a week among the respondents (58 hours) relatively 'better' conditions can be found among the regularly employed, whereas much worse conditions are evident in the case of street sellers and employees without contract. In fact, the highest average monthly income is found among cooks and shopkeepers and the lowest among different types of street sellers.

Remittances represent an important aspect of Bangladeshi migration (Rahman and Kabir 2012), and this is true also for Bangladeshis in the survey sample. More than 80% sent remittances to Bangladesh a year prior to the interview. However, there can be found some differences with respect to respondents' characteristics, for instance, Bangladeshi males who live with their family in Rome sent lower amounts than those who are married but with the spouse and children in Bangladesh.

Furthermore, we investigated the employment statuses of Bangladeshi males and females in the sample before and after their migration from Bangladesh, and we analyzed if the migration to Rome was followed by improvement or deterioration of the employment status. The result shows that half of men have improved their conditions and about 25% have not changed (positively) their employment status. On the other hand, only less than 10% of women have improved their conditions.

One of the specific aims of this project was to investigate the housing conditions of Bangladeshis in Rome. In this respect, the existing literature is very scarce, and thus it adds a value to a knowledge obtained throughout the survey.

The results show that the majority of Bangladeshis living in Rome are renters, but almost three quarters of them do not have an accommodation contract. The proportion of living in irregular housing conditions is then much higher for males than for females.

In the analysis of housing characteristics, determinant aspect seems to be a presence of respondents' family and relatives. As shown also by the analysis of the official statistics data, the survey results reveal significant differences in respect with the 'family households' and 'households of cohabitation'. For instance, highest proportion of owners or those having an accommodation contract are among Bangladeshis who live in Rome with the nuclear family. On the contrary, the highest share of those living without a contract is found among those who cohabitate with unrelated persons. Overall, the results suggest that better housing conditions seems to be among those who live in Rome in a 'family households', as well as those who are present and work under regular conditions. Worse housing conditions, on the other hand, are associated more with the 'households of cohabitations'.

In cohesion with existing literature (Choi 1993; Peach 2006) are the results showing very high levels of overcrowding of Bangladeshi households in Rome. On average, more than eight persons live in one household, differing between males (8.9 persons) and females (5.1 persons), and about 2.5 persons per room (2.7 and 1.8 respectively). This indicates smaller household size and lower levels of overcrowding for households where Bangladeshi women live. However, rather worse housing conditions of Bangladeshis in Rome are only partly reflected in the satisfaction with their accommodation. Higher levels of satisfaction are observed among regular respondents and an important aspect in this respect is the presence of family. Approximately 90% of those who live with nuclear family are satisfied and half of those who live with distant relatives.

It is important to take into account that the norms influencing household size, household composition or the obligation towards family and friends may be culturally contingent (Myers *et al.* 1996). This is more than true for the case of Bangladeshi group.

However, the importance of social networks in this community has been described by many authors (Knights 1996; Ghosh 2007) and also the survey results show that more than 90% of Bangladeshis received some help when arrived in Rome for the first time, mainly from relatives and friends or acquaintances in the case of males and from close family in the case of females. This help in a large part consisted of finding an accommodation (more than 80%), giving a financial support, but also giving a psychological support. The latter type of help suggests presence of high social integrity among the community members, confirmed also in the literature (Faist 2000).

The role and influence of social networks are crucial for Bangladeshis in Rome, and the survey shows that when comparing the channels through which the respondents found the first (after arrival in Rome) and the current (at the moment of accommodation, the majority of Bangladeshis found survey) their first accommodation throughout the channel of relatives and the channel of friends or acquaintances. Moreover, there is a significant increase in the proportion of respondents who found their current accommodation by themselves (without any help) respect the search of the accommodation when arrived in Rome. This suggests also that the role of social network is the most important after the arrival of Bangladeshis to Rome. Similar finding has been found in the case of Bangladeshis in Toronto (Ghosh 2007).

To understand better housing conditions of Bangladeshi males in Rome, we applied three logistic regression models to assess to what extent selected characteristics of Bangladeshis determine the fact of having an accommodation contract, living in a less overcrowded household and being satisfied with a current accommodation. The results show that in all models we can see an effect of the channels throughout which the Bangladeshi males found their accommodation. Interestingly, the channel of friends and acquaintances was associated with households of cohabitations, mainly with irregular and rather worse housing conditions, and it seems that this channel is used especially at the beginning of their stay in Rome, at the very first arrival. Although this network channel is noticeably associated with poorer housing conditions respect to the channel of family and relatives, it has an irreplaceable role in the migration process of Bangladeshis to Rome.

Furthermore, an important seems to be the role of education. Bangladeshis with higher educational level seems to have higher expectations and requirements and to that related higher probability to live in regular and generally better housing conditions. Therefore, at the same time they are less satisfied with their conditions respect to males who are less educated. This finding is coherent with other research (Dekker *et al.* 2011) confirming the higher expectation for those who are more educated.

The models show also that the irregular Bangladeshi males are more likely to live in worse housing conditions respect to those who are present regularly.

We believe that despite not very numerous, the realized survey contributes significantly to the knowledge on the Bangladeshi community in Rome, and in the near future may serve as a complementary information to the geographically detailed, soon available, data of Italian Census 2011.

To this is related propose for further research. With an available Italian Census data 2011 would be possible to compare the development of living conditions and spatial distributions of Bangladeshis in Rome, and in the combination with the survey data portray even better the profile of this community in the Italian capital city.

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Appendix 1 English version of the questionnaire

SURVEY AMONG CITIZENS OF BANGLADESH IN ROME

Anonymous Questionnaire

Only citizens of Bangladesh or citizens of Bangladesh with a dual citizenship aged 18 and older and those who were not born in Italy can be interviewed.

Information (art. 13 DGLS 196/2003)

It is declared in accordance to the Article 13 of Decree No. 196/2003 on privacy that the data collected in this survey will be treated anonymously and confidentially and that the information provided will be used exclusively for statistical purposes.

	Number of Questionnaire:
Α.	Date of Interview
	Day Month Year
	2 0 1 3
В.	Place of Interview
	Code:
C.	Which places do you frequent in last two months?
	Tick all that apply
	Centres that offer the assistance and services (public offices, police, municipality,
	hospitality centres, soup kitchens, etc.)
	□ Mosques, churches
	□ Ethnic shops (kebab, food stores, etc.)
	Employment service centres or agencies
	□ Service centres (International phonecenter, Western Union Money Transfer,
	Internet point, etc.)
	□ Markets
	□ Shopping centres
	□ Cultural associations or centres
	Places of entertainment (pubs, restaurants, discotheques, etc.)
	□ Open spaces (squares, stations, parks, etc.)
	□ Other:
D.	Indicate two of them that you frequent the most (excluded the place of interview).
	Write the name and the address (location).
	1
	2.

INDIVIDUAL CHARACTERISTICS

- 1. Gender:
 □ Male
 □ Female
- 2. What is your date of birth and age?

Year	of bi	rth	_	Age		

- 3. Where were you born?
 - In Bangladesh write in the code of the district:
 In other country write in the code of the country:
 - \Box in other country write in the code of the country.
- In what district did you live before leaving Bangladesh? District code:
- 5. Where do you live in Rome? Write an address or indicate a street and some closest important point.

Street, number:
Or
Indicate a street and any closest important point (bus stop, street, monument, park, etc.):

- 6. One year ago, was your address same as now?
 - \Box Yes
 - \Box No write in an address:
 - Street, number: _____

Or

Indicate a street and any closest important point (bus stop, street, monument, etc.):

□ No, one year ago I was not in Rome, I was in another part of Italy – write in the name of the city: _____

 \Box No, I was not in Italy – write in the code of the country:

- 7. What other **citizenship** do you have besides the citizenship of Bangladesh? *Tick all that apply*
 - $\hfill\square$ I have no other citizenship besides the citizenship of Bangladesh
 - □ Citizenship of Italy

 $\hfill\square$ Other – write in the code of the country:

8. When did you obtain your first residence permit in Italy?

Month Yea	Year

 \Box I have never had a residence permit in Italy \rightarrow go to the question 10

9. What is your current legal status?

- $\hfill\square$ Holder of a dual citizenship, one of which is a citizenship of Bangladesh
- $\hfill\square$ Holder of a residence card or an EC long-term residence permit
- □ Holder of an EU permanent residence
- \Box Holder of a residence permit for seasonal work
- $\hfill\square$ Holder of a residence permit for self-employed work
- $\hfill\square$ Holder of a residence permit for subordinate permanent work
- \Box Holder of a residence permit for subordinate work with a temporary contract
- \Box Holder of a residence permit for family reunion
- □ Holder of a short-term residence permit (less than one year)

 \Box Holder of other type of permit or authorization (asylum, visa, temporary protection, etc.)

 $\hfill\square$ Holder of expired visa or residence permit in the process of renewal

- □ Holder of expired visa or residence permit (not trying to renew it)
- $\hfill\square$ Waiting for response of regularization or immigration decree
- □ Other: _____

10. What is your main language?

The main language is a language that you use the most.

- 🗆 Bengali
- \Box Italian
- Other language: _____

11. How well can you speak Italian?

- □ Very well
- □ Well
- □ Not well
- \Box Not at all

12. What is your religion?

- □ No religion
- Christian
- □ Buddhist
- □ Hindu
- □ Muslim
- □ Jewish
- \Box Sikh

□ Other: _____

13. How is your health in general?

- □ Very good
- \Box Good
- 🗆 Fair
- □ Bad
- □ Very bad

FAMILY

14. What is your legal marital status?

- \Box Never married \rightarrow go to the question No.16
- □ Married
- \Box Divorced \rightarrow go to the question No.16
- \Box Widowed \rightarrow go to the question No.16
- 15. If you are married:
 - A. When did you get married?

Month		Year		

- B. Where does your wife or husband live?
 - \Box In Rome
 - \Box In Bangladesh with my family
 - $\hfill\square$ In Bangladesh with her or his family
 - \Box In Bangladesh alone
 - \Box In another place write in where (city, country)
 - Country: _____
 - City: _____
- C. How did you find your wife or husband?
 - \Box By myself
 - \Box By my family
 - \Box By both myself and my family
 - □ Other: _____
- D. What is the citizenship of your wife or husband?
 - □ Bangladeshi
 - 🗆 Italian
 - $\hfill\square$ Other write in the code of the country:

16. How many children do you have?

 \Box I have no children \rightarrow go to the question No.18

 $\hfill\square$ Indicate the number of children

17. Characteristics of your children:

Write the characteristics of all children according to the birth order

FOR EXAMPLE:

You have two children, first on is a daughter, born in 2004 in Bangladesh and now living in Italy; second one is a son, born in 2011 in Italy and now living in Italy.

Birth order	Gender	Year of birth	Country of birth	Country of current residence
1	□ M □ F			
2	□ M □ F			
3	□ M □ F			
4	□ M □ F			
5	□ M □ F			
6	□ M □ F			
7	□ M □ F			
8	□ M □ F			
9	□ M □ F			

18. How many brothers and sisters do you have?

Write in number of brothers:		Write in number of sisters:	
□ I have no brothers and sisters	\rightarrow	go to the question No.20	

19. What is the birth order of yours and your brothers and sisters?

Consider only brothers and sisters who have the same mother and father as you (respondent). Tick only one in the column "Respondent" – the one that refers to YOU.

EXAMPLE:

You have one brother (first child) and one sister (second child) and you are the youngest one (third child). Your brother and sister live in Bangladesh and you live in Italy.

Birth order	Gender	Respondent (YOU)	Country of current residence
1	🛛 M 🗆 F		Bangladesh
2	🗆 M 🛛 F		Bangladesh
3	🛛 M 🗆 F	\boxtimes	Italy

Birth order	Gender	Respondent	Country of current residence
1	□ M □ F		
2	□ M □ F		
3	□ M □ F		
4	□ M □ F		
5	□ M □ F		
6	□ M □ F		
7	□ M □ F		
8	□ M □ F		
9	□ M □ F		

20. Characteristics of your parents:

Consider the birth order of brother and sister that is written in the previous question (no.19)

	Mother	Father
Is he still alive?	🗆 Yes 🗆 No	🗆 Yes 🗆 No
Does he still work?	🗆 Yes 🗆 No	□ Yes □ No
Who does mainly give financial support to him?	 No one No one, she does not need it Brother or sister of birth order no Another family relative Another unrelated person 	 No one No one, he does not need it Brother or sister of birth order no Another family relative Another unrelated person

Who does mainly	🗆 No one	🗆 No one
	\Box No one, she does not need it	\square No one, he does not need it
give direct care to him? (e.a.	□ Brother or sister of birth order	□ Brother or sister of birth order
him? (e.g. preparing meals, bathing)	no	no
	□ Another family relative	□ Another family relative
	□ Another unrelated person	□ Another unrelated person
	l .	<u>I</u>

HOUSEHOLD CHARACTERISTICS

21. How many times have you **changed the address since you arrived to Rome** for the first time?

🗆 I hav	e not d	changed	the ac	dress	since	l arrived	to	Rome

□ I have changed the address times

22. Who helped you to find your first and current accommodation in Rome?

If you have not changed your accommodation, fill only the column Current accommodation

A. First accommodation B. Current accommodation □ My employer □ My employer □ Public facilities □ Public structure □ Voluntary and non-profit associations □ Voluntary and non-profit associations □ Bangladeshis – family, relatives □ Bangladeshis – family, relatives □ Bangladeshis – unrelated □ Bangladeshis – unrelated □ Other immigrants □ Other immigrants □ Italians □ Italians \Box Only by myself (agencies, ads, etc.) \Box Only by myself (agencies, ads, etc.) Other: Other: _

23. Who usually lives in the house/apartment where you live in Rome?

Tick all that apply

- \Box Just me, I live alone \rightarrow go to the question No.26
- □ Family members (parents, children, brothers and sisters, relatives, etc.)
- □ Unrelated persons housemates
- □ Other people: _____
- 24. Counting everyone you included in the question No. 23, how many people usually live in your accommodation?

Do not count the respondent.

Indicate total number of people (excluded you):

25. How are members of this household related to you?

Tick	all	that	apply
------	-----	------	-------

- $\hfill\square$ Husband or wife
- \Box Son or daughter
- $\hfill\square$ Brother or sister
- $\hfill\square$ Mother or father
- \Box Cousin (in first or second grade)
- \Box Cousin (in third or forth grade)
- $\hfill\square$ Unrelated but we knew each other before leaving Bangladesh
- $\hfill\square$ Unrelated but we come from the same city
- \Box Unrelated at all
- Other: ____
- 26. For how long have you lived in your current accommodation?

Number of months:

- 27. What type of accommodation do you live in?
 - $\hfill\square$ A detached whole house
 - $\hfill\square$ A semi-detached whole house
 - $\hfill\square$ A flat that is in a purpose built block of flats
 - \Box A flat that is part of a converted or shared house (including bedsits)
 - \square A flat that is in a commercial building (e.g. an office building, hotel, or over a shop)
 - $\hfill\square$ A caravan or other mobile or temporary structure

28. Housing situation:

- $\hfill\square$ Detached accommodation
- $\hfill\square$ Condominium accommodation
- $\hfill\square$ Accommodation provided by an employer
- $\hfill\square$ Accommodation in the work place
- \Box Hotel, quest house with fee
- $\hfill\square$ Shelter for refugees or other kind of help centre
- $\hfill\square$ Garage, basement or other improper accommodation
- □ Squatting, shed or other temporary place
- Other: ___

29. Do you own or rent your accommodation?

Tick one box only

- \Box Owns outright \rightarrow go to the question No.33
- \Box Owns with a mortgage or loan \rightarrow go to the question No.33
- \Box Part owns and part rents (shared ownership)
- □ Rents
- \Box Lives in rent free (as a guest)

Write number of persons

30. Who	is	your	land	lord?
---------	----	------	------	-------

- □ Employer of a household member
- \Box Relative of a household member
- \Box Friend of a household member
- \Box Unrelated
- □ Other: _____

31. Where does your landlord come from?

- □ Bangladesh
- 🗆 Italy
- \Box Other write in the code of the country:
- 32. Do you have a lease contract?
 - Yes
 - \Box No

33. How many rooms are available for use only by your household?
Do NOT count: bathrooms, toilets, halls or landings, storage rooms such a cupboards
Count all other rooms: kitchen, living rooms, utility rooms, bedrooms, studies, and conservatories
Write number of rooms:

- 34. How many of these rooms are bedrooms? Write number of bedrooms:
- 35. How many beds (that are used) are in your accommodation? Write number of beds:

36. What type of central heating does your accommodation have?

Central heating is a central system that generates heat for multiple rooms. Tick one box only.

- \Box No central heating
- 🗆 Gas
- □ Electric (including storage heaters)
- 🗆 Oil
- □ Solid fuel (e.g. wood, coal)
- □ Other central heating: ___
- \Box Do not know
- 37. In your accommodation is available:

Tick all that apply

- □ Kitchen or kitchenette
- \Box WC
- □ Bathroom/shower
- □ Electricity

- Running water
- Washing machine
- □ Window/s
- □ Balcony or terrace

- □ Dishwasher
- □ Fridge

□ Garden

Internet

 \Box Television

38. Are you satisfied with your current accommodation?

- \Box Very satisfied
- \Box Quite satisfied
- $\hfill\square$ Neither satisfied nor unsatisfied
- \Box Quite dissatisfied
- \Box Very dissatisfied

39. Do you want to change your accommodation in the next 12 months? Select one - the most significant answer

- \Box No
- \Box Yes, now I pay too much
- $\hfill\square$ Yes, the current accommodation is too small
- $\hfill\square$ Yes, the current accommodation is too far from my work place
- $\hfill\square$ Yes, I do not get along with my roommates/flatmates
- $\hfill\square$ Yes, I want to live alone
- $\hfill\square$ Yes, I want to live only with my family
- Yes, for another reason: _____

EDUCATION AND WORK

40. What is your highest qualification?

According to the education system of Bangladesh

- \Box No qualifications \rightarrow go to the question No.42
- □ Primary education *(approximately ages 6 to 10)*
- □ Junior secondary education (approximately ages 11 to 13)
- □ Secondary education/trade certificate/Ssc vocational/Artisian courses (approximately ages 14 to 15)
- □ Higher secondary education (approximately ages 16 to 17)
- □ Diploma (Engineering) (approximately ages 16 to 19)
- \Box Bachelor (Pass)
- \Box Masters (Prel)
- □ MA/MSc/Mcom/MSS
- \Box PhD
- □ Other: _____

41. What is the number of years of education that you successfully completed?

Total:				
Of which in Bangladesh:				
Of which in Italy:				
Of which in another country	– w	rite	in the code of the country:	

42. What was your employment situation before leaving Bangladesh?

- Tick one box only
- □ Employed
- \Box Unemployed (or searching for a job) \rightarrow go to the question No.44
- \Box Searching for the first job \rightarrow go to the question No.44
- \Box Student \rightarrow go to the question No.44
- \Box Housewife \rightarrow go to the question No.44
- Other:

43. If you were employed, in which sector did you work before leaving Bangladesh?

- □ Agriculture
- □ Manufacturing
- \Box Construction and quarrying
- □ Hospitality (hotels, restaurants and bars)
- \Box Commerce
- $\hfill\square$ Public services
- □ Other: _____

44. What is your current employment situation?

- □ Unemployed
- □ Working as an employee (stable or more or less temporary jobs)
- □ Working as an employee (occasional jobs)
- □ Self-employed or freelance (e.g. lawyer, accountant, etc.) without employees
- □ Self-employed or freelance with employees

Write in how many employees you have:

- \Box Working for my own business
- □ Working as a hawker (street seller, window cleaner, etc.)
- □ Working paid or unpaid for a family business
- \Box Doing any other kind of paid work
- \Box Away from work ill, on maternity leave or temporarily laid off
- □ Pensioners
- \Box Looking after home or family (housewife)
- □ Student
- Other: ____

45. Were you actively looking for any kind of paid work during last one month?

- 🗆 No

46. Have you ever worked in Rome?

□ Yes

 \Box No \rightarrow go to the question No.57

Answer the following questions (No.47 – No.56) for your main job or, if not working, your last main job (in Italy). Your main job is the job that you usually work the most hours.

47. What is your job? Write a code of Annex no.1.

	Code:
	Other:
48.	When did you start your current job? Month Year
49.	In which sector do you work?
	□ Agriculture
	Manufacturing
	Construction and quarrying
	\Box Hospitality (hotels, restaurants and bars)
	Public services
	□ Other:
50.	How did you find your main job?

- □ By myself
- \Box With a help of an employment agency
- \Box With a help of my relatives
- \Box With a help of my friends
- \Box With a help of my compatriots
- \Box With a help of other immigrants
- \Box I was contacted by my employer
- $\hfill\square$ With a help of a trade union
- $\hfill\square$ With a help of public facilities
- □ With a help of a voluntary or non-profit association
- □ Other: _____

51. What natio	nality are your	co-workers?
----------------	-----------------	-------------

- $\hfill\square$ I do not have any co-workers
- □ Only Italians
- \Box Only Bangladeshis
- $\hfill\square$ Only for eigners of other nationalities
- $\hfill\square$ Mainly Italians
- \Box Mainly Bangladeshis
- □ Mainly foreigners of other nationalities
- □ Other: _____

52. Do you have an employment contract?

□ Yes

 \Box No \rightarrow go to the question No.54

53. What kind of employment contract do you have?

- \Box Permanent contract
- \Box Fixed-term contract
- \Box Seasonal work
- $\hfill\square$ Apprentice, training
- □ Other: _____

54. In your main job, what is the address or zone of your workplace?

Street, number: _

Indicate a street and any closest important point (bus stop, street, monument, park, etc):

 $\hfill\square$ Mainly work at or from home

- $\hfill\square$ No fixed place
- \Box Other e.g. outside of Rome write in the name of the municipality:
- 55. Do you have more than one job?
 - \Box Yes
 - 🗆 No

56. In your main job how many hours a week do you usually work?

Including paid and unpaid overtime

Write number of hours:

57. What is your approximate main job income?

A. In the last week	B. Average monthly
\Box No earnings	🗆 No earnings
□ 1 – 99 €	□ 1 – 199 €
□ 100 – 199 €	□ 200 – 399 €
□ 200 – 299 €	□ 400 – 599 €
□ 300 – 399 €	□ 600 – 799 €
□ 400 € and more	□ 800 – 999 €
	□ 1000 € and more

58. What is your approximate family net income?

Family income is an income of close family members that live *in the same accommodation* as a respondent (you). If you live alone, write only your personal income.

A. In the last week	B. Average monthly
\Box No earnings	No earnings
□ 1 – 99 €	□ 1 – 199 €
□ 100 – 199 €	□ 200 – 399 €
□ 200 – 299 €	□ 400 – 599 €
□ 300 – 399 €	□ 600 – 799 €
□ 400 – 499 €	□ 800 – 999 €
□ 500 € and more	□ 1000 € and more

59. What are the average monthly expenses of your family (or yours, if you live alone)?

A. For rent of the accommodation	B. Total expenses
□ 1 – 199 €	□ 1 – 199 €
□ 200 – 399 €	□ 200 – 399 €
□ 400 – 599 €	□ 400 – 599 €
□ 600 – 799 €	□ 600 – 799 €
□ 800 – 999 €	□ 800 – 999 €
□ 1000 € and more	□ 1000 - 1199 €
	□ 1200 € and more

60. Did you send money to Bangladesh in the last 12 months?

□ Yes

\Box No \rightarrow go to the question No.63

61. How much money in average per month do you send approximately to Bangladesh?

- □ 1 99 €
- □ 100 199 €
- □ 200 299 €
- □ 300 399 €
- □ 400 499 €
- \Box 500 ${\ensuremath{\varepsilon}}$ and more

- 62. How often do you send money to Bangladesh?
 - \Box Once a year
 - □ Every 6 months
 - □ Every 3 months
 - □ Every month
 - Other: ____

63. Who do you spend your free time with?

Select at most two answers in order of decreasing importance

- I. II.
- \Box \Box I do not have any free time
- □ □ With family members
- □ □ With other relatives or friends of Bangladeshi nationality
- □ □ With foreigners of other nationality
- □ □ With acquaintances or friends of Italian nationality
- □ □ Alone
- □ □ Other: __

MIGRATION HISTORY

64. Did you spend some time in other countries before coming from Bangladesh to Italy for the first time?

Do not count the stay in Bangladesh

 \Box Yes, write in number of months:

 \Box No

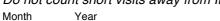
65. When did you arrive to Italy for the first time?

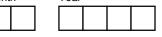
Do not count short visits away from Italy



Year

66. When did you arrive to Rome for the first time? Do not count short visits away from Italy





- 67. Did you take advantage of any of the following regularisations?
 - □ 1986/87 (Law 943/86)
 - □ 1990 (Law Martelli)
 - □ 1995/96 (Decree law Dini)
 - □ 1998 (Law Turco Napolitano)
 - □ 2002 (Law Bossi Fini)
 - □ 2009 (for domestic workers and caregivers)
 - □ 2012

68. What was your main reason for coming to Rome?

- Tick one box only
- \Box Work
- □ Studies
- □ Family
- □ No exact reason
- □ Other: _____
- 69. Did you come alone or with someone you had already known (the first time you arrived to Rome)?
 - Tick one box only
 - \Box Alone
 - $\hfill\square$ With a friends
 - \Box With another family members or close relatives
 - $\hfill\square$ With persons I knew, but we are not related at all
 - □ Other:
- 70. Was there anyone already in Rome who helped you when you were coming there for the first time?
 - \Box No \rightarrow go to the question No.73
 - □ Yes
- 71. What was your relationship towards this person or people?

Tick all that apply

- $\hfill\square$ Husband or wife
- □ Mother or father
- □ Brother or sister
- $\hfill\square$ Other close relative
- \Box Cousin (in first or second grade)
- \Box Other distant relative (third and forth grade cousin, etc.)
- $\hfill\square$ Unrelated but we knew each other before leaving Bangladesh
- $\hfill\square$ Unrelated but we come from the same city
- □ Unrelated at all (friend, acquaintance, etc.)
- 72. How did these people help you when you arrived to Rome?

Tick all that apply

- $\hfill\square$ Found me an accommodation
- \Box Found me a job
- $\hfill\square$ Lent me money
- \Box Gave me little financial support
- \Box Had provided an accommodation before I found my own place (no fees)
- \Box Gave me a psychological support
- □ Helped me in other way: ____

73. How long do you intend to stay in Rome?

- $\hfill\square$ Less than 1 year
- \Box 1 year or more but less than 5 years
- \Box 5 years or more
- \Box Forever
- $\hfill\square$ Do not know

74. What plans do you have in the next 12 months?

- Tick all that apply
- □ To get married
- \Box To have a child
- \Box To bring some member(s) of my family to Rome
- \Box To leave Rome because of moving to another city in Italy
- $\hfill\square$ To leave Rome because of moving back to Bangladesh
- $\hfill\square$ To leave Rome because of moving to another country code of the country:
- \Box To buy an apartment
- □ I do not know yet