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France Lert, Maria Melchior, Isabelle Ville. Functional limitations and overweight among migrants in the Histoire de Vie study (Insee, 2003).. Epidemiology and Public Health = Revue d'Epidémiologie et de Santé Publique, 2007, 55 (6), pp.391-400. 10.1016/j.respe.2007.09.003 . inserm-00222092

HAL Id: inserm-00222092

<https://inserm.hal.science/inserm-00222092>

Submitted on 29 Jan 2008

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Functional limitations and overweight among migrants in the Histoire de Vie study (INSEE 2003)

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Limitations fonctionnelles et surpoids chez les immigrants dans l'enquête Histoire de Vie (INSEE, 2003)

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SUMMARY

Context

In France, epidemiological data on immigrant population are limited since characterisation of immigrants is viewed as a sensitive issue. The Histoire de Vie survey allows to describe the association of immigration characteristics and two health indicators.

Methods

Health-related functional limitations and overweight ($BMI \geq 25 \text{ kg/m}^2$) were studied among 18 to 64-year-olds using indirect age standardisation. Immigration status was characterized in 4 different ways: by interviewees' and their parents' migratory pathways (French born to two french-born parents, second generation, immigrated at 15 or younger, immigrated at 16 or older), citizenship (french by birth, french by naturalisation, non french), geographical origin (France, Europe, outside Europe), and language(s) spoken at home (french mother tongue, french in persons who have not french as mother tongue, french and another language, another language). The analyses were conducted separately in men and in women and stratified by occupational status (upper and lower). For functional limitations, the analysis was repeated excluding participants whose limitations occurred before the age of 19, which was the average age of immigration, to assess a possible healthier migrant effect.

Results

Compared to French men born to two French parents, an increased rate of functional limitations was observed among men born in Europe and/or who had at least one parent born in Europe (SMR: 1.4, 95% CI:1.06-1.81), and a reduced rate among participants born outside Europe or who had at least one parent born outside Europe (SMR: 0.63 95% CI:

0.46-0.86); these differences remained when social status was taken into account. Among women, a tendency towards a lower rate of functional limitations was found in lower social status groups among those who immigrated as adults, among non-French citizens and among non-Europeans. Restricting the analysis to individuals free of limitations at 19 did not suggest a healthier migrant effect. Among men, overweight did not differ according to immigration characteristics. Women who immigrated in their adult life (SMR: 1.42 95%CI:1.18-1.74), who have a foreign citizenship (SMR: 1.44 95%CI: 1.18-1.74) and who still speak their mother tongue at home (SMR:1.53 95%CI: 1.23-1.88) are more likely to be overweighted than non migrant women. These results were observed in lower social groups but not in the upper social groups.

Conclusion

The results demonstrate a heterogeneity in the relation between immigration status and health, according to age at immigration, gender and origin while the migrant second generation appears quite close to the population born French to two French-born parents. Further studies are needed to provide data on a wider range of health indicators. In the future, health surveys should document detailed information to allow for a full characterisation of the migrant population.

Key words : Migrants. Functional limitations. Overweight. France

RESUME

Contexte

En France, les données épidémiologiques sur la population immigrée sont d'autant plus rares que la caractérisation des immigrés est considérée comme un enjeu très sensible. L'enquête Histoire de vie permet de décrire plusieurs caractéristiques de la notion d'immigration et leur association avec deux indicateurs de santé.

Méthodes

Les limitations dans la réalisation des activités quotidiennes pour raison de santé et l'indice de masse corporelle ($BMI \geq 25 \text{ kg/m}^2$) ont été étudiés parmi les 18-64 ans par une standardisation indirecte sur l'âge. Quatre catégorisations ont été effectuées pour rendre compte de la situation d'immigration : ces définitions ont trait à la notion de parcours migratoire de l'interviewé et de ses parents, de nationalité, d'origine géographique, de langue(s) parlée(s) en famille. Les analyses ont été réalisées par sexe, sur l'ensemble de l'échantillon, et séparément par PCS (élevées et basses). Pour les limitations, l'analyse a été répétée en excluant les personnes dont la limitation est survenue avant 19 ans, âge moyen de l'immigration, pour examiner l'hypothèse d'un effet de sélection à l'émigration.

Résultats

Concernant les limitations, on observe un excès de risque chez les hommes nés en/ou ayant au moins un parents né en Europe (SMR: 1,4 IC95%:1,06-1,81), et un risque réduit chez les personnes nées/ou ayant au moins un parent né hors d'Europe (SMR: 0,63 IC95%: 0,46-0,86), différences qui se maintiennent lorsque le statut social est pris en compte. Chez les femmes, on n'observe une tendance en faveur d'un moindre risque dans les PCS faibles pour les femmes immigrées à l'âge adulte, les étrangères, les non-européennes. Les

résultats sur la population sans limitations à 19 ans ne suggèrent pas de biais de sélection. La fréquence d'un BMI ≥ 25 kg/m² ne diffère pas chez les hommes entre français et immigrés, tandis que le risque de surpoids est majoré chez les femmes nées à l'étranger, arrivée à l'âge adulte en particulier celles de faible statut social, à l'exception des femmes arrivées en France dans l'enfance ou des filles de la deuxième génération.

Conclusion

Les résultats témoignent d'une hétérogénéité de l'association entre immigration et santé qui recouvrent des processus multiples et différents selon le sexe ; la deuxième génération semble avoir pour les indicateurs étudiés des résultats proches des français nés de parents eux-mêmes nés en France. D'autres études sont nécessaires pour élargir l'éventail des indicateurs de santé. A l'avenir, les études de santé en population devraient recueillir les informations nécessaires pour permettre une bonne caractérisation de la population immigrée.

Mots clés : Immigrés. Surpoids. Limitations fonctionnelles. France

Migratory movements are a universal dimension of the demography of human societies and contemporary societies are ethnically and culturally heterogeneous with large migrant communities and ethnic minorities. In the 2004-2005 census, France had 4.93 million immigrants, of which 2.96 million had a foreign citizenship. In most European countries, despite historical and political differences across countries, first generation migrants and their children are in the most disadvantaged social categories and experienced worse conditions in terms of education, work, employment, housing and financial resources [1]. Migrant communities, including individuals who have been immigrants since birth and their descendants, are therefore at increased risk of being in groups with the least favourable health indicators. Yet the most recent results of studies on the relations between immigration and health [2] confirm previous review [3] which showed that immigrants often have an advantage both over the population in their country of origin and over the population in their host country. Selection biases both at emigration from the country of birth (healthy migrant effect) and at return from the host country to the country of origin (salmon bias [4]) do not appear to explain such results. However findings are not totally consistent across the range of pathologies, health behaviour and migrant subgroups. Inconsistency might be explained by the periods when the studies took place, the variety of study designs and of subgroups and population under study. There is a need to produce epidemiological results for every country to account for its single situation regarding immigration and minorities and to update these results to account for changes in migratory movements and in public policy regarding migrants.

In France, to date, there have been few epidemiological studies of immigrant populations or of populations of immigrant descent, and those that do exist deal with specific subgroups, and their results need to be updated with new data. French studies on cancer mortality that compared individuals born in Africa [5], China and South-East Asia [6],

cover the period 1979-85. Lower rates of cancer mortality (all cancers) were observed among these sub-groups compared to french-born individuals, with the exception of certain cancer sites (the liver in particular). The study of mortality among Moroccans living in France over the period 1979-91 showed a low mortality rate among Moroccan men living in France compared both to the Moroccan population and to the French population; among women, immigrant women have an advantage over Moroccan female population, but a higher mortality rate than French women. These results included various control variables which address biases that result from health-related mobility, especially the “salmon bias” [7,8]. Compared to men in French households, (using data from the 1991-92 “Enquête Santé”), men in north-African households are healthier with regard to various health indicators (self-reported morbidity, vital risk, disability) ; among women, more favourable outcomes were observed in women from Moroccan households than in those in French households along with poorer indicators for endocrinal problems, perinatal health, health-related symptoms. In terms of health behaviour, the over-consumption of tobacco among Moroccan migrant men did not maintain after adjusting for social status. Among women in north-african households, adjusted rates of obesity were higher than among women in French households [9]. Similarly, Darmon and Khlat’s review [10] computed lower rates of cardiovascular mortality in the migrant population and attributed this advantage to protective nutritional patterns. Regarding perinatal health, there was no difference in the average birth weight in children born to immigrant women as compared to children born to a French mother [11]. However in the adult general population, migrant men and women rated their health as worse than the French-born population [12]. A study comparing health and aging in immigrants aged between 45 and 70 to the general population showed the same results and revealed a heterogeneity with regard to origin, which can probably be attributed to cultural dimensions [13].

In France, most population surveys document nationality and country of birth. However some large population surveys such as the “Baromètre Santé” survey which monitors health behaviour neither the country of birth nor the nationality are documented [14].

Actually classifying migrants and ethnic minorities is a complex issue to which each country responds in single ways according to its history and political context. In France, for more than two centuries, society is defined as a unique community of citizens whatever their origin, religion, phenotype or language. The population census only collects information on individuals’ country of birth, citizenship at birth and current citizenship. Immigrants are thus defined as “individuals residing in France, born non-French citizens abroad, whatever their current citizenship”. As the issue of ethnic discrimination is more and more at stake, an increasing number of demographic and sociological studies introduce questions on origins or look at the question of minorities and discrimination. In this context of poor information on migrants health in a country with large and growing social health inequalities, we take the opportunity of the “Histoire de vie “ survey to study two health indicators, functional limitations related to health problems and overweight in relation with four different migrant status definitions.

POPULATION AND METHODS

The «Histoire de Vie» Survey, carried out by INSEE in 2003, examines the construction of identity in French society and explores the biography and situation of individuals in multiple areas (geographical mobility, family relationships since childhood, occupational history, forms of sociability, languages, disability, identities claimed, political and religious activity, etc) [15]. It thus provides information which allows to characterise the position of individuals in terms of immigration status, not only with regard to their own

place of birth and current nationality, but also to their parents' migrant status (second generation) and to their use of languages in everyday life. The sample of 8403 persons (men and women over age 18) living in a household in France was randomly drawn from a national database based on the 1999 population census and is representative of France's general population. Due to small numbers in the general population, three groups were purposely oversampled: 1) individuals born abroad, 2) individuals with at least one parent born abroad, 3) individuals aged less than 60 years and reporting functional limitations. Sampling weights were calculated using prevalence rates established by two complementary surveys tagged onto the 1999 population census [16]. The survey response rate was 62%, which is typical of surveys conducted in France. Face-to-face interviews were conducted in french at the interviewees' home and lasted an average of 70 minutes. For further details on the methodology and objectives of the survey, see [15].

In line with the focus on construction of identity, health is mainly approached in terms of experience of illness and disability [17]. Only two health self reported indicators are documented, weight and height and functional limitations (limitations in carrying out activities considered normal for a given age) and their date of onset. This information allows to explore two different and significant dimensions of health; overweight accounts for nutrition, physical activity and is a risk factor of a range of chronic health disorders while functional limitations account for the impact of long standing illness on daily activities (this indicator is also labelled as limiting long-standing illness (LLTI). These two indicators are studied as dichotomous variables, overweight being defined as a BMI >25 kg/m².

For this exploratory analysis, immigration was defined in reference to different processes of participation in French society, leading to four variables which assessed the following dimensions: the person's or his/her parents' place of birth (France or elsewhere),

citizenship (French or non-French), geographical origin and the language spoken within the family. The first dimension relates to the notion of immigration by distinguishing individuals born in France or born French in a foreign country (French of french descent) from those born in a foreign country (first generation migrants) or in France of at least one non-French parent (second generation migrants). Among the first generation, immigrants are differentiated in terms of the age at which they first arrived in France which defines conditions of socialisation that vary enormously depending on whether the person spent his/her childhood and adolescence in France, or whether he/she arrived at an adult age (age over 15, 16 being the age of compulsory schooling in France since 1959).

Citizenship at the time of the survey (French by birth, French by naturalisation, non-French) relates to both a legal dimension and a process of integration that depends both on personal choice and on naturalisation policies which vary in accordance with the era, the country of origin and agreements between France and the country of origin (dual nationality, national service, etc.). The administrative, political and social effects of whether or not a person acquires French nationality are considerable [18].

Without neglecting the genetic factors that might affect health but which need to be approached in a precise and specific manner, geographical origin involves cultural aspects, history of the links between the country of origin and France which cover the colonial past, economic relations and political history, and give a particular and changing form to migratory flows: movements of refugees, immigration for reasons of employment, family reunification etc. But because of a small sample size, we grouped together populations with very different migratory histories. We thus distinguished three exclusive groups (France, Europe, Non-Europe) by taking into consideration the birth information of the participant and his/her parents. Having one parent born outside Europe was sufficient to classify the interviewee in the “non-Europe” category; among the remaining sample,

having one parent born in Europe was sufficient to classify the interviewee in the “Europe” group, and only interviewees born in France of two parents also born on French territory were classified in the “France” group.

Finally, the language spoken at home was considered as an indicator of the process of acculturation in the host country. We distinguished participants who spoke French since they were children from those for whom French was not the mother tongue, from those who used a foreign language when they were children and who spoke French at home, and finally from those who speak a language other than French in everyday life.

Among the variables relating to social status, we chose participants occupational grade at the time of the survey rather than the level of education, because it shows the modes of socio-economic insertion into the labour market in a homogeneous manner for the entire sample, whereas the level of education is very strongly influenced by the conditions for education in the country where the interviewee spent his/her childhood. In order to allow standardisation, we created two categories: upper social status (intermediate occupations, senior executives, the self-employed and all freelance workers) and lower social status (clerks, manual workers). We chose to include unemployed and housewives in the lower social status.

The study was restricted to participants aged 18-64. The upper limit was set to take into account the phenomenon of a return to one’s home country at the end of one’s working life (salmon bias), which might be related to health. This phenomenon of selection might favour either the healthiest people (if sick or disabled individuals are the ones returning to their home country) or the most ill (if sick individuals need a modern health system which may not exist in their country of origin).

ANALYSIS STRATEGY

The analysis was conducted using indirect age standardisation with confidence intervals being calculated at 95%, we compared immigrants to the French category in according to the its definition in each of the four analysis. The “French” reference group thus differs according to the immigration variable being studied: birth in France or abroad to two parents born in France, French citizenship from birth, birth in France to two parents born in France, french as mother tongue. In order to take into account differences in social status between French people and the different categories of immigrants, and to see if any observed differences were linked to social status, the analyses were carried out separately for the upper and lower social status groups. Finally, given a possible effect of selection on immigration, the analyses of functional limitations were also carried out restricting the sample to participants free of functional limitations at the age of 19, 19 being the median age at entry among first generation migrants.

The effect of the length of time spent in France was studied for each indicator for the population of people having been immigrants since birth (412 men and 494 women) using step-by-step logistic regression which took into account age, social status (in two groups), country of birth (divided into “Europe”, “Maghreb”, and “other countries”), age at the first arrival in France (before or after 18). All the analyses were carried out separately sin men and in women using weighted data [19]. The statistical analyses were carried out using EXCEL and SAS software, version 9.

RESULTS

Our sample includes 3107 men and 3688 women, of whom respectively 2718 and 3232 had no functional limitations at age 19. Table 1 presents the age and sex distributions according to the four definitions of the migrant status. Approximately one person in five (19.7% of men and 21.5% of women) has immigrated herself or has at least one immigrant

parent. Among immigrants born abroad, those who arrived at an adult age only represent 6.4% of men and 7.2% of women. More than 9 individuals out of 10 are French by birth and the proportion of foreigners is 5.3% among men and 6.1% among women. Approximately 14% of individuals living in France were born outside Europe or have a parent born outside Europe. Approximately one quarter of individuals living in France spoke a language other than French during their childhood, and of those, approximately half now speak French at home, with only a small proportion not speaking French at all (2.4% of men and 2.9% of women).

By construction, median ages for the different categories of immigrants differ in accordance with the age at which the person arrived in France, acquired French citizenship or learned French. The distribution of social status is different between the French and first or second generation immigrants (figure 1). Among men, the upper social categories are more frequent among French people born of two parents born in France (49,8%), nationalised Frenchs (40,8%) and european (born in Europe or of parents born in Europe) migrants (52,1%), in contrast with men who do not speak French at home (13%), foreigners (23,4%) and first-generation immigrants who arrived during adulthood (24.6%). Compared to men, social status is lower among women. Unemployment and inactivity are frequent among women arrived in France at 16 or older (25.4%), those who have kept their non french citizenship (29,3%) or who do not speak French at home (39.9%) compared to their French counterparts. Second-generation men and women show higher levels of unemployment or inactivity than people born in France to French parents.

The prevalence of functional limitations is similar for both men and women (13.9%). Among men, compared to the Frenchs, standardized ratios of functional limitations do not differ from 1 according to immigration categories, nationality and main language spoken at home. Higher rates of functional limitations are observed among immigrants only in the

analysis based on the geographical origin: the group of participants with a European descent have an increased rate of functional limitations (SMR 1.4 95% CI:1.06-1.81), whereas non European respondents have a lower rate of limitations (SMR: 0.63 95% CI: 0.46-0.86) (Figure 2). Among women, no standardised rate differs from 1 for $p < 0.05$; however, compared to French women, women who immigrated at young age tend to have a higher rate of limitations (SMR 1.69 95% CI: 0.99-2.69) while an opposite tendency is observed among second-generation immigrant women (SMR 0.75 95% CI: 0.53-1.03).

When the social status is considered, lower rates of functional limitations are observed among men born/of parents born outside Europe, in both upper and lower social status groups, whereas in European men, frequency of functional limitations is higher only in the upper social status group. Among women with low social status, immigrant women who arrived as adults, women with foreign nationality have lower standardised rates of functional limitations than French women: SMR 0.61 (95% CI 0.37-0.94) and SMR 0.65 95% CI of 0.38 to 1.03, respectively.

The results are very similar when the study is restricted to the population exempt from limitations at the age of 19. Among men, functional limitations are more frequent among men using French and another language at home than among the French mother tongue reference group (SMR 1.44 95% CI 1.05-1.92), the other results being unchanged. Among women, we find no difference between French women and immigrants.

Among first-generation immigrant men, the logistic regression modeling of functional limitations confirms the lower rate of functional limitations among men born in the Maghreb (or elsewhere outside Europe compared to immigrants born in Europe (OR 0.54 95%CI 0.26-0.99 and OR 0.30 95%IC 0.14-0.63 respectively); the duration of immigration is not associated with this indicator. In women, functional limitations are associated with the length of stay in France (compared to women with more than 20 years in France, OR =

0.25 95% CI: 0.11-0.58 for durations of less than 10 years, OR = 0.44 95% CI: 0.24-0.82 for women who arrived between 10 and 19 years prior to the study). Compared to women who immigrated to France from European countries, women born in the Maghreb have higher rates of limitations (OR 2.12 95% CI: 1.13-.4,00).

Overweight is significantly more frequent among men than among women (41.8% and 29.2 % respectively). For men, overweight does not appear to be more common among immigrants except among men arrived in their childhood (SMR 1.36 95% CI: 0.99-1.84) (Figure 3). In the upper social male population, SMRs for second generation men, men arrived as adults and for men born outside Europe tend to be less than 1 although not reaching 0.05 p-value. In the lower social group, no difference was found according to immigration categories. Compared to French women, the frequency of overweight is greater among women who arrived after the age of 15, foreign women, women speaking both French and another language or those not speaking any French at home. The same results are observed in the lower social population while in the upper social group, French and migrant women do not differ whichever the migration categorisation considered.

In the logistic regressions, men born in the Maghreb and outside Europe are at lower risk of overweight compared to Europe-born men (OR=0.42 95%IC0.25-0.71 and OR=0.37 95%IC 0.23-0.61). Among women, overweight is found associated with birth in the Maghreb compared to women born in Europe (OR 1.83 95% CI: 1.15-.2.93). No association is identified between overweight and length of time since immigration neither among men nor among women (results not shown).

DISCUSSION

The “Histoire de vie” survey allows to study the association between migration status and health using categories usually not available in population surveys carried out in France where country of birth and nationality are mainly used to define the migrant population. These data made possible to separate second generation migrants from the native French population and migrants born abroad who have grown up in France from those who arrived in France in their adult life. Languages spoken at home provide a clue of acculturation to the French society since acculturation scales are not used. In the French general population, functional limitations follow a social gradient [20] while the social gradient of overweight exists in the female population but not in men [21] . Among men, only one of the 4 definitions of the migrant status, that considering individual or parents’ birth country, is associated with functional limitations while no association was observed in women. Among individuals born abroad, logistic modeling confirms the observation based on SMRs, european migrants being at higher risk compared to men of non european descent. Women born in the Maghreb and women living in France for 20 years or more are at higher risk of functional limitations. Regarding overweight, no association with the migrant status was found in men, while among women, those who arrived in their adult life, who have kept their foreign nationality, women with either european or non-european descent, speaking their mother tongue at home are at higher risk of overweight. This association is observed among lower social status women, but not in the upper social group. Among first generation migrants, women born in the Maghreb are at higher risk compared to Europeans while an opposite association is found among men (including those born outside Europe). There is no association with the time elapsed since immigration. These results suggest that for both indicators there is no general feature of worse health outcomes among migrants as observed in previous studies. Among men and women, the second generation population and individuals who have immigrated in their childhood do

not differ from the French-born group neither for functional limitations nor for overweight. This finding is in favour of an integration process when childhood and adolescence take place in France.

The functional limitations indicator (or LLTI) is commonly used in population health survey [22,23,34]. Its transcultural validity has not been studied [25,26]. In England, comparisons across ethnic minorities showed higher rates among the ethnic minorities, higher rates being maintained after adjusting for social status [27]. However rates of LLTI varied across minorities and adjusting for social status suggested different associations between social status and ethnic background [28]. In Sweden among adult women of reproductive age, immigrant women are at increased risk of functional limitations compared to Swedish women after adjustment for social status and marital status [29]. These results suggest that a systematic bias in documenting LLTI among migrants to western industrialised societies is unlikely. However as other widely used health indicators, its transcultural validity should be assessed. The higher rates among men of european descent and the lower rates among men of non european descent is quite difficult to interpret. Detailed information on occupation does not suggest a difference in occupational exposure to high physical demands since in this sample the proportion of manual workers does not differ according to european or non-european origin. However, due to the sample size, grouping of origins covers very different situations regarding migration history and social situation of the various subgroups in the French society. For example, the grouping of all Europeans in the same category might dilute the existence of a high level of exposure to physical demands in a subgroup, such as Portuguese male population working in the construction industry. Results of the study of limitations restricted to the individuals free of limitations at the age of 19 are not in favour of a healthier migrant effect. Restricting the age group to individuals under 65 might reduce the

even effect of the salmon bias. These phenomena are less likely to occur in the early twenty first century than in the sixties since family reunification, asylum seeking and studying have replaced immigration of “guest workers” hired to fulfil manpower shortage and expected to return in their country of birth at retirement.

Findings on the rate of overweight according to migrant status have to be considered regarding the situation of overweight in the general population worldwide. In Europe, France has lower rates compared to other countries, while European countries have lower rates than North America [30]. In Canada, the immigrants’ advantage over Canadians is heterogeneous for countries of origin and decreases over the time since immigration [31,32]; similar results are found in the United States [33,34]. In Sweden on the other hand, certain groups of male and female immigrants are more frequently overweight than people born in Sweden, and in these groups of increased risk, recent immigrants tend to be closer to native Swedes [35]. The length of time since immigration would here seem to have the opposite effect to that found in North America. Among migrant populations in France, some migrant men might have an advantage over non migrants while in women, different situations appear to put migrant women at risk of overweight.

In France, either among migrants or non migrants, overweight does not follow a social gradient among men but does among women as shown by the analysis based on SMR and on logistic regression. Among women who acquired the French citizenship, 50.2% were born outside Europe while they are 57.2% among women with foreign nationality. The former do not differ from French women by birth while the latter were found to have higher rates. SMRs for women of european descent and for women of non european descent tend to be close and slightly higher than 1. However among women who speak only their mother tongue at home, 60,7% were born outside Europe and were found with much higher rates of overweight. Finally women born in the Maghreb were found at higher

risk. On the whole, these results suggest rather an acculturation process related to the social and economic participation in the mainstream society than ethnic or genetic factors to explain excess of overweight in migrant women compared to natives. The excess risk of both overweight and functional limitations among women born in the Maghreb requires further attention to this subgroup.

The present study is limited to two indicators, providing a very partial picture of the health status of the migrant subgroups. LLTI (or functional limitations) accounts for the impact of physical health on daily activities but not for psychological wellbeing and mental health. Discrimination and racial harassment commonly experienced by migrants might put them at risk of increased mental health disorder [36]. Discrimination of second generation migrants in access to employment in France has been demonstrated [37] and might impact their health status. Thus further study of migrant health should consider a wider range of health indicators in the diverse categories of the migrant population, including the second generation.

Despite overrepresentation of migrants in the sampling procedure, the “Histoire de vie” sample size is too small to even allow for studying separately the major migrant subgroups in France such as people from Portugal, Turkey or Subsaharan Africa. It was only possible to distinguish population from the Maghreb. Studying the respective roles of migration factors and of social determinants in migrant population requires either very large sample. Additional information allowing the characterisation of the migrant status should be documented in large population health surveys in France.

ACKNOWLEDGEMENTS : We would like to thank Magali Martin for her help with the statistical analysis, with advice and support from Daniel Ruffin, and both the latter and Myriam Khlat for their invaluable comments on the article. This work was carried out under a convention with MIRE (Mission Interministérielle Recherche Expérimentation), Ministry of Health.

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Table I. Distribution and median age for different definitions of immigration – «Histoire de Vie» Survey, 18-64 years old (n= 6 795)-

		%		Median age (IQR)	
		(adjusted data)			
		men	women	men	women
Place of birth and immigration	Born of 2 parents born in France	80.3	78.5	43 33-53	43 33-52.5
	Born in France of 1 or 2 parent(s) born abroad	10.7	11.8	38 28-50	39 29-49
	Born outside France and coming to France before 15 y.o.	2.5	2.4	40 30-52	40 32-47
	Born outside France and coming to France after 15 y.o.	6.4	7.2	50 42-56	47 39-54
	French by birth	90.8	90.4	43 32-53	42 32-52
	French by acquisition	3.8	3.5	47 37-56	47 37-54
Nationality	Foreign	5.3	6.1	47 37-55	44 35-52
Geographical origin	Born in France of 2 parents born in France	77.9	76.5	42 32-52	42 32-52
	Born or at least of one parent born in Europe	8.4	9.0	48 38-56	47 38-54
	Born or at least of one parent born outside Europe	13.8	14.4	43 30-54	40 31-50
Language spoken at home	French since birth	76.0	76.1	42 32-52	42 32-52
	French but another mother tongue	12.3	11.8	47 34.5-55	44 36-54
	French and mother tongue	9.3	9.2	44 32-53	41 31-50
	Mother tongue only	2.4	2.9	51 41.5-57	48 40-56

Figure 1

Social status among men and women according to four definitions of the migrant status.

«Histoire de Vie» Survey (18-64 years old).

weighted data

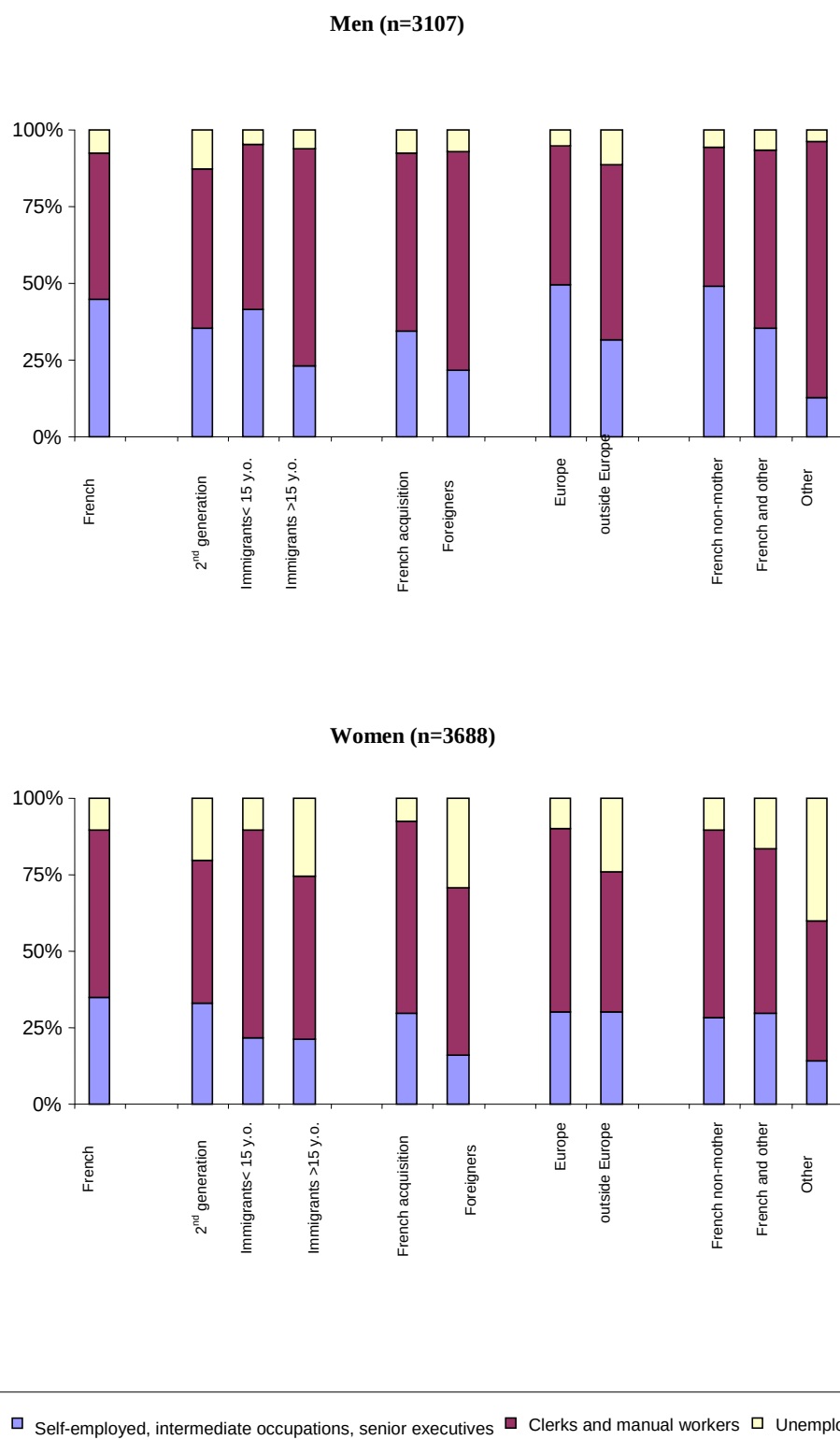
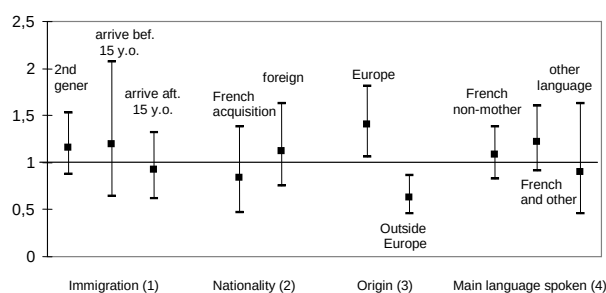


Figure 2

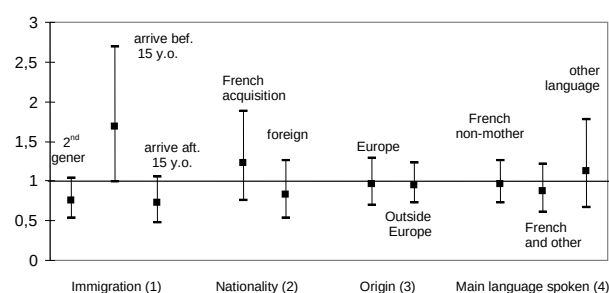
Functional limitations in the «Histoire de Vie» Survey (18-64 year olds). Standardised morbidity ratios, CI 95% (men = 3107, women = 3688) – weighted data

Men

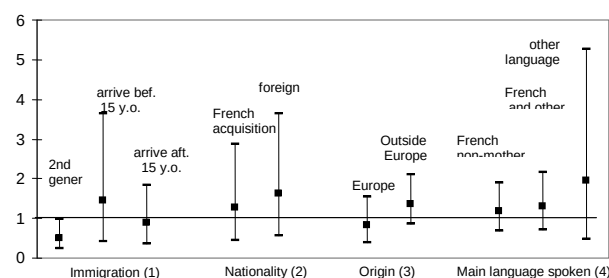
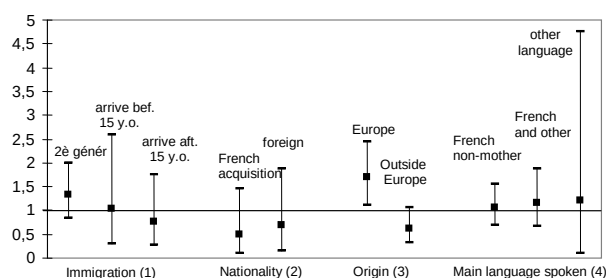
Overall



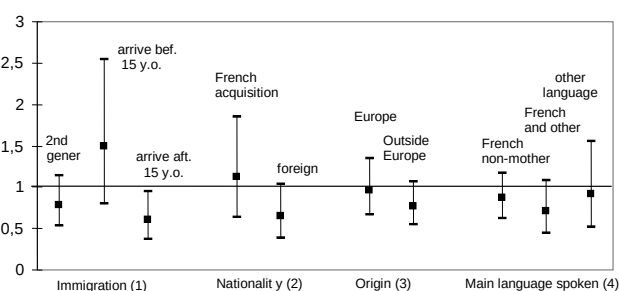
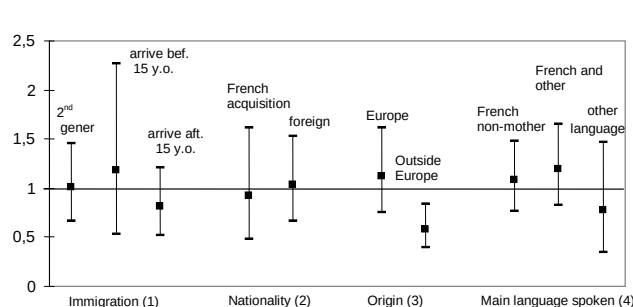
Women



Upper social status : executives, intermediate occupations, self-employed



Lower social status: employees, manual workers, unemployed/housewives



Reference: (1) French citizens born to both parents born in France (2) French by birth (3) Born in France to both parents born in France. (4) French, mother tongue

Figure 3

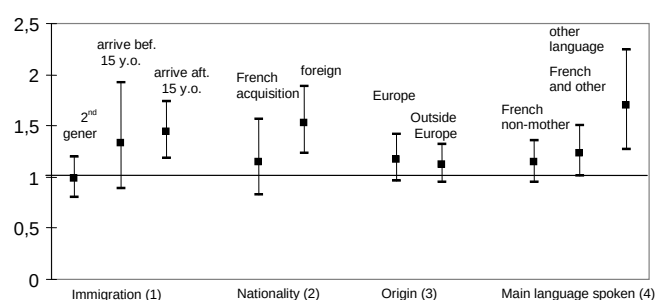
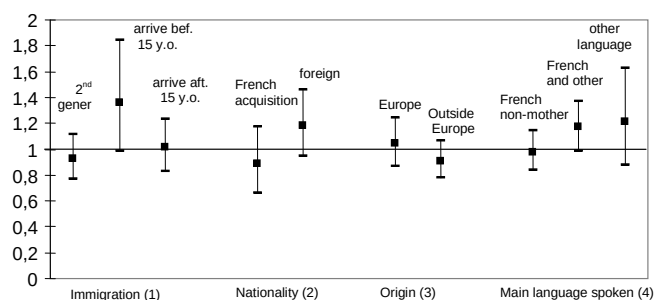
Overweight (BMI ≥ 25 kg/m²) in the «Histoire de Vie» Survey (18-64 year olds).

Standardised Ratios, CI 95% (men n=3107, women n=3688) – weighted data

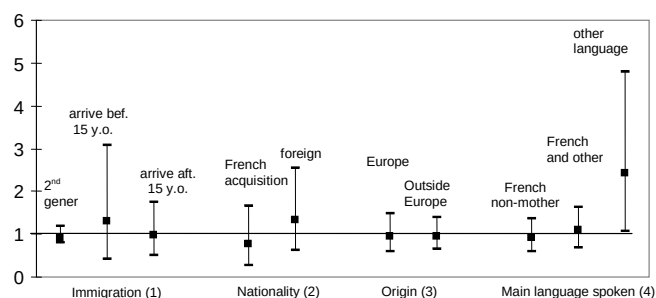
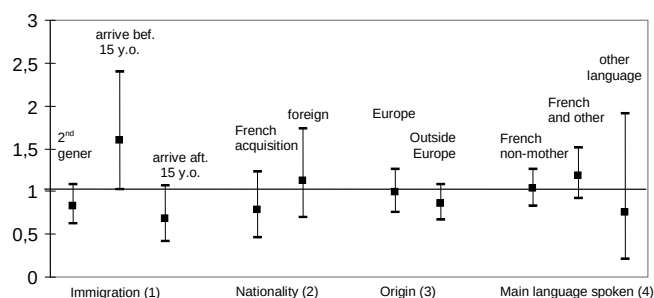
Men

Women

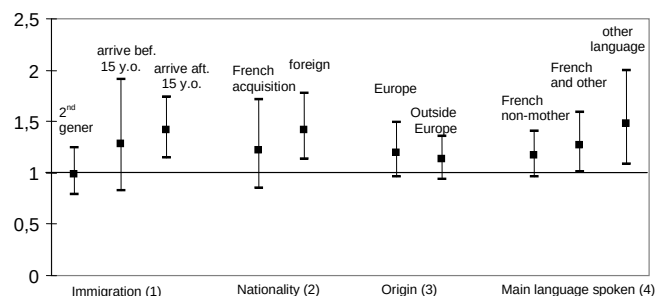
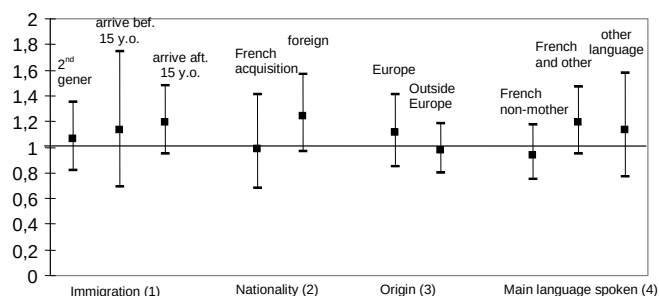
Overall



Upper social status : executives, intermediate occupations, self-employed



Lower social status: employees, manual workers, unemployed/housewives



Reference: (1) French citizens born to both parents born in France (2) French by birth (3) Born in France to both parents born in France. (4) French, mother tongue