FRESHER
FORESIGHT AND MODELLING FOR EUROPEAN HEALTH POLICY AND REGULATION

Is there any impact of Social position on Health?

Report - Summary

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1 INTRODUCTION

The World Health Organization (WHO) defines health "as a state of complete physical, mental and social well-being" and an individual, if he is to be considered healthy, should not suffer from any disease (… "and [that health is] not merely the absence of disease or infirmity") (1, 2).

Social determinants of health are the economic and social conditions, and their distribution among the population, that influence individual and group differences in health status. They are risk factors found in one's living and working conditions (such as the distribution of income, wealth, influence, and power), rather than individual factors (such as behavioural risk factors or genetics) that influence the risk for a disease, injury, or vulnerability to disease or injury.

In the debate about the determinants of social class, variation in health, social mobility, and factors associated with it have been suggested to play an important part in creating this variation (4-6). Social mobility describes the shifts or stability between social class positions (3). Inter-generational social mobility describes the change of occupational positions between generations, from parental class to own adult class, while intra-generational social mobility describes mobility within an individual's own working life. Class of origin refers to social class conditions during upbringing while class of destination refers to the individual's attained class at a certain point in adult life.

Social mobility typically refers to vertical mobility, which is the movement of individuals or groups up or down from one socioeconomic level to another. A high level of inter-generational mobility is often considered praiseworthy, and can be seen as a sign of equality of opportunity in a society.

The extent to which social mobility attributable to health can directly contribute to the overall patterning of health by social class is, however, apparently rather small (7). Instead, social mobility may have indirect influences, as in this case both adult health and social status are

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determined by one and the same factor that is associated with mobility.

This is also referred to as indirect health selection (8-11). Given that the social hierarchy is modified through social mobility, it is interesting that the role of social mobility itself as a determinant of health has been poorly conceptualised.

The objective of this literature review is to identify studies that have evaluated the association between social position and health in different populations in order to assess published evidence relating to the hypothesis that social position and factors associated with it play an important part in health variation. In this sense, social position attributable to health that can directly contribute to the overall patterning of health by social class is, however, apparently rather small. The reminder of the article is organised as follows. Section 2 presents the methodology used for the analysis. In the following section, the results are compiled. The last two sections present the main conclusions and the recommendations that are derived from these.

2 METHODS

In order to identify the most relevant published evidence regarding the relationship between “Health” and “Social Class mobility”, we used the scoping review method, with its various stages. Scoping studies (or scoping reviews) represent an increasingly popular approach to reviewing health research evidence (12). However, no universal scoping study definition or purpose exists (13, 14). Unlike other systematic reviews, a scoping review does not include or exclude studies based on their research designs (15). Rather, those designs are taken into account in the data analysis. This approach allows for a comprehensive overview of all the topics, concepts, and especially methodologies employed in the domain under study.

In an effort to provide guidance to authors undertaking scoping studies, Arksey and O'Malley (15) have developed a six-stage methodological framework: identifying the research question; searching for relevant studies; selecting studies; charting the data; collating, summarising, and reporting the results; and consulting with stakeholders to inform or validate study findings

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(16). While this framework provides an excellent methodological foundation, published scoping studies continue to lack sufficient methodological description or detail about the data analysis process, making it challenging for readers to understand how study findings were determined (17).

2.1. Identification of studies

The following databases were consulted: MEDLINE/PubMed, Cochrane Database of Systematic Reviews, Scientific Electronic Library Online (SciELO) and Centre for Reviews and Dissemination Database (University of York).

To define the search terms we used the MeSH method. The keywords used (English) were related to: (1) "Health" as a MajorTerm; (2) "Class mobility", "Vertical mobility", "Social position", "Socioeconomic factors", "Social class", "Social conditions", "Social environment", "Poverty" and "Social marginalization" as MeSHTerm; (3) "Systematic reviews"; and (4) "Abstract". In each database, our search covered the period from January 2010 to May 2016.

(Table 1 over here)

2.2. Selection and evaluation

Articles were selected in two stages. First, after removing duplicate records, we analysed the references obtained in the identification stage based on titles and abstracts. We then examined the complete texts of the articles retained. For both stages, we used as an inclusion criteria that the articles were published in English. The data from the articles retained after the second stage were extracted and analysed.

The analytical process consisted first, of extracting as much information as possible to describe the studies retained. This process was based on the descriptive checklist for articles included in a scoping study proposed by Malo and Robert (18): a) country where the study was conducted; b) health issue(s) addressed; c) research design used; d) tools and instruments

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used to measure research use or its processes.

2.3. Final data analyses

Once the data were extracted, analyses of the information were performed to develop a picture of the studies' key results in terms of strategies used, analysis of processes, and types of use measured. The data were grouped by themes and then described for qualitative analysis and quantified whenever possible. Our analysis of the research designs was guided by the STROBE checklist (19). These analyses also provided a picture of the key results of the studies.

3 RESULTS

The search identified 1,092 potentially relevant studies. After analysis of titles and abstracts, 376 studies were retained and their full texts reviewed in depth, resulting in a final pool of 42 studies. A flow diagram has been used (see Fig. 1).

(Figure 1 over here)

3.1. Outcomes analysis

Table 2 presents a complete list of the references obtained according the previously defined selection, as well as the key elements analysed and the results derived from each of them. The heterogeneity of studies made it difficult to synthesise the results and assess the impact of factors considered on outcomes. Nevertheless, two-thirds of the studies reviewed show evidence suggesting that social mobility has an effect on health, and one-third show that there is evidently no effect.

The evidence analysed is reported in the groups of the different searching MeSHTerms.

Related to evidence suggesting the presence of the effect of social mobility on health, we identify two studies on class mobility and health.

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Authors of a study (21) who read and summarised 48 peer-reviewed papers about all-cause and cause-specific mortality, find that mortality rates were highest among men whose paternal, own first, and most recent jobs were manual. Specific causes of death were associated with different life stages. Upward and downward social mobility conferred intermediate mortality rates. Low childhood cognitive ability was strongly associated with low social class in adulthood and higher mortality before age 65.

On the other side, a systematic review and meta-analysis (23) of English-language studies assessing the association of social mobility in migrant or second-generation groups with common mental disorders, finds that suggested that migrants to higher income countries who experienced downward mobility or underemployment were more likely to screen positive for common mental disorders, relative to migrants who were upwardly mobile or experienced no changes to socioeconomic position.

Five studies on poverty and health were also identified, showing evidence of an effect of social mobility on health. A review article analyses the inter-generational transmission of inequality, taking into account maternal and health disadvantages at birth (25), and demonstrates that maternal disadvantages in matters of health that are derived from exposure to harmful environmental factors and poor access to health care, including family planning, involve a clear disadvantage for the future of children.

Even more, a study (26) following a systematic review that analyses the results of perinatal care in economically depressed neighbourhoods or areas shows that mothers living in an economically depressed neighbourhood have an increased probability of preterm birth and a reduced size of the baby during the gestational period.

A review (27) of 165 articles on clinical trials for minority populations with low income indicated an increase in studies that focus on the selection of individuals from minority groups and low income in clinical research. The greater part of the papers was focused on cancer treatment studies, obesity and overweight issues, and AIDS.

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Studying the same topic, a literature review (29) based on USA, Canada, and Mozambique, has shown that disadvantaged groups are at greater risk for CVD and that another large group at higher risk for CVD is people living in LMICs. Meanwhile, infectious diseases and maternal/neonatal deaths are still prevalent, producing the so-called double burden of diseases in LMICs.

Moreover, a paper (30) that reviewed 20 articles on how health conditions during the first years of life affect health status in the adult stage, confirms an important influence on heart diseases and diabetes of health parameters in the first stages of life. In addition, research demonstrates the relationship between bad nutrition during childhood and diabetes, the correlation between diseases in childhood and in later adult life, and the negative correlation between lower socioeconomic level and adult mortality.

We also identify nine studies on social class and health, showing the effects of social mobility on health. A review (31) that involved studies looking at the association between a measure of socioeconomic status and health outcomes in the Portuguese resident population since the year 2000 shows strong evidence for health inequalities related to education and gender, chiefly for obesity, self-rated health, and mental health.

A systematic review (33) was conducted to identify all published studies on SES and ambient air pollution exposure and the overall evidence highlights that most North American studies have shown that areas with low socioeconomic status (SES) communities experience higher concentrations of criteria air pollutants, while European research has been mixed. Research from Asia, Africa, and other parts of the world has shown a general trend similar to that of North America, but research in these parts of the world is limited.

A systematic review (34) involved studies that assessed socioeconomic position before the age of 18 and physical activity at age ≥18 years and found a significant association between socioeconomic position early in life and physical activity during adulthood.

Authors of another study (35) summarise the first results of the JA-CHRODIS (Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle) in the context of the

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2nd EU Health Programme 2008-2013, focusing on the identification of a population with multi morbidity that has a high or very high care demand, showing that socioeconomic status is an important source of health inequity, as there is a robust positive correlation between socioeconomic status and health. Socioeconomic indicators are also closely associated with prevalence of chronic diseases and healthcare expenditures of patients with multi morbidity. In the current issue, Hopman and colleagues report that multi morbidity is associated with lower disposable income and smaller household size, and that the prevalence of multi morbidity, and thus the level of need for provision, are greater among more deprived persons, and that poorer people and people with lower levels of education are less likely to benefit from improvements in public health.

Other authors who systematically reviewed studies (36) of the effectiveness of individual, community and societal interventions in reducing socioeconomic inequalities in obesity among adults, have found that at the individual level, there is evidence of the effectiveness of primary care-delivered tailored weight loss programmes among deprived groups. Community-based behavioural weight loss interventions.

The aim of an article based on the situation in India (38) is to review the empirical evidence on the relationship between socioeconomic status and cardiovascular health, showing that with the exception of smoking, cardiovascular diseases, and risk factors such as obesity, diabetes, elevated lipids, and hypertension are in general more prevalent among the higher socioeconomic status (SES) groups in India.

The purpose of another study (39) was to survey urban and very low-income adults with diabetes about disease severity, anticipated disease trajectory, and self-rated health-related quality of life, finding that the perceived risk of diabetes related-complications, diabetes severity, and duration of diabetes were significantly and negatively associated with health-related quality of life.

A paper (40) describes the current prevalence and time trends of childhood obesity worldwide, and the association between childhood obesity and socioeconomic status (SES) showing that the prevalence is highest in western and industrialised countries, but still low in

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some developing countries, and that SES groups with greater access to energy-dense diets (low-SES in industrialised countries and high-SES in developing countries) are at increased risk of being obese compared to their counterparts, and also experience more SES-based disparities in outcomes for IBD, including in-hospital mortality rates and health-related quality of life.

The main objective of a systematic review and meta-analysis (42) of English-language studies was to assess the association of social mobility with common mental disorders in migrant and second-generation groups in order to inform future research. This work suggested that downward intra-generational social mobility was associated with migration in the majority of studies. Random effects meta-analysis (n=5179) suggested that migrants who moved to higher income countries but experienced downward mobility or underemployment were more likely to screen positive for common mental disorders, relative to migrants who were upwardly mobile or experienced no changes to socioeconomic position.

We identify eight studies that show the effect of social position on health. A systematic review (43) analyses the empirical evidence on the association between housing status, medical care, and health outcomes among people with HIV, and the evidence supports that unstable or inadequate housing and homelessness are associated with differential utilisation of HIV care, reduced treatment effectiveness, and HIV transmission risk behaviours.

Another systematic review (44) describes the evidence based on inequalities on health, as well as in access to health care, according to age, gender and socioeconomic position (SEP) in the older European population, providing further evidence that inequalities in mortality rate by socioeconomic position persist into the oldest ages for both men and women in all countries analysed.

A systematic review (45) that tested strategies to increase adherence to cardiovascular diseases (CVD)-related medications prescribed to adult patients who may experience health inequity was performed and found that in high-income countries, it is estimated that up to 50% who are prescribed cardiovascular medications do not, at some point, adhere to therapy; these rates of non-adherence are greater still among marginalised groups.

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On the other side, seven Danish cohort studies (46) were linked to registry data on education and incidence of coronary heart disease (CHD). Methods for meditation based on the additive hazards model were applied. Results were compared with the Cox proportional hazards model. The study confirms previous claims based on the Cox proportional hazards model that behavioural risk factors partially mediate the effect of education on CHD. Smoking and BMI partially explained the educational gradient in CHD.

In another study (48) a Social Inequality in Cancer (SIC) cohort study was established by pooling prospective data from several existing cohorts, showing social inequality in cause-specific mortality, including incidence of coronary heart disease and breast cancer when comparing low versus high educational level and the proportion mediated through smoking, alcohol, and physical activity.

A systematic review (49) has been developed to ascertain to what extent there is evidence of similar inequalities in the subjective health and well-being of older people in Europe. Poorer SEP was associated with poorer subjective health and well-being. Associations tended to be weaker in the oldest age groups.

An article develops a systematic review (50) to clarify associations between socioeconomic position (SEP) and the prevalence of asthma and allergies. Low SEP was associated with a higher prevalence of asthma in 63% of the studies. Research on allergies, however, showed a positive association between higher SEP and illness in 66% of studies.

Some authors developed a systematic review and meta-analysis (51) for analysing the association between low socioeconomic position (SEP) and incidence of gastric cancer. Results show an increased risk of gastric cancer among the lowest SEP categories in education, occupation, and combined SEP, compared with the highest SEP categories.

On the other side, there were some studies in this review which show no clear evidence or no evidence at all of the connection of social mobility on health.

Related to search term class mobility, a literature review (20) that evaluated different

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approaches to monitoring inequalities and to identifying potential causal relationships between socioeconomic status and health, shows that heterogeneities in health inequalities and in the associations between determinants of health and health have long been regarded as merely a technical issue involving potential biases.

Even more, a systematic literature review (22) based on U.K. data shows that social mobility models were supported in some studies; however, the overall evidence suggested little or no effect.

The search on poverty revealed a review of articles related to United States, Netherlands, and Canada on the effects on the health of children (0-18 years) who grow up in marginal or poor neighbourhoods (24). These studies show that in 60% of the studies it is confirmed that children who grow up in marginal or poor neighbourhoods presented serious health problems, although in many cases conclusions are not based on the empirical estimate of formal models.

Moreover, another review of the literature relates the socioeconomic status of the population to the probability of hypertension in rural populations in low/middle income countries through conducting a meta-analysis (28). Overall, no association was detected between educational status and hypertension, whereas a positive association was observed with income. It was found that educational status was inversely associated with hypertension in East Asia and, on the other side, that higher income, household assets, or social class were positively associated with hypertension in South Asia; no association was detected in East Asia and Africa.

Related to the search term social class, a literature review (32) that describes the findings on the relationship between socioeconomic position SEP and childhood-adolescent weight status found an inverse relationship: 18.7% of studies did not find a relationship, and 20.9% of studies found a relationship that varied depending on another variable, such as age, sex, or ethnic group.

In the same way, the aim of another review was to assess what types of socioeconomic

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positions (SEP) are being considered in randomised controlled intervention studies and estimate the moderation of SEP in workplace intervention effects on body mass index (BMI), fruit and vegetable consumption, musculoskeletal symptoms, and job stress. A meta-analysis of randomised controlled workplace interventions was undertaken (37) with the conclusion that there were no statistically significant differences between occupational classes for the health outcomes considered.

Related to the previous studies, a review (41) describes time trends in health inequalities and commitments to reducing health inequalities, indicating a narrowing of the gap between the best- and worst-off groups in some health indicators, such as life expectancy, but a widening of the gap in others, such as diabetes prevalence.

Finally, there is no evidence of social position on health according to a study (47) that examines the combined effect and interaction between socioeconomic position (i.e., education), smoking and hypertension on ischaemic and haemorrhagic stroke incidence in Denmark through the use of the additive hazards model. Smoking and hypertension were more prevalent among those with low education. Low versus high education was associated with greater ischaemic, but not haemorrhagic, stroke incidence. There was no clear evidence of an interaction between low education and hypertension. Evidence supports the conclusion that reducing smoking in those with low socioeconomic position and in those with hypertension could potentially reduce social inequality stroke incidence.

In that sense, another article performs a rapid-review (52) to analyse individual measures of socioeconomic position (SEP) in childhood cancer outcomes in adulthood. The revised studies documented that individuals who experience poorer socioeconomic circumstances during childhood carry a higher risk of overall mortality, independent of adult socioeconomic position, although breast cancer mortality was inconsistently related to childhood SEP, as well as prostate cancer associations.

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4 DISCUSSION

Following Sanna Tiikkaja (7) certain resources that are unequally distributed in society are systematically connected to social class position and health (53). Social class in childhood and adult life and social mobility have been studied in relation to various health and mortality outcomes (54-57). Two main hypotheses have been proposed to account for the link between social position and health: social causation and health selection (58). The "Social causation hypothesis" assumes that it is the social position (through e.g. work environment or diet) that influences health. In this case a low social position "causes" poor health, whereas a high social position "causes" good health.

The "Health selection hypothesis" (sometimes referred to as social selection) assumes that people are selected to a social position according to their health status. This implies that poor health "causes" low social position and that social mobility is a function of the individual's health (7).

Persons with poor health "drift down" (or fail to move up) the occupational hierarchy and individuals with good health "climb up" the occupational ladder.

Social selection can also refer to mobility between and within generations, between social classes, and into and out of the labour market. In addition, the "social drift hypothesis" proceeds from the idea that individuals with poor health are bound to become downwardly mobile. Poor health can be an important limitation for social mobility. On the other hand good health may "cause" upwards mobility (59).

A person's health may improve or worsen conjointly with social class changes (60) (61). Individuals who change social positions possess the health attributes from the class they left, as well as the health attributes in the class they join.

Upwardly mobile individuals have (on average) better health than those in the class they left, but poorer health than the class they join. Downwardly mobile individuals have (on average) poorer health than the class they left, but better health than the class they join.

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Furthermore, people who are mobile out of the labour market generally have poorer health than those who remain within it. (62). Socially mobile individuals may also change their life style habits (63, 64) and adjust their manners to the class they join (65).

There is also an on-going debate on whether social mobility leads to an increase or decrease in health inequalities. Thus, even though a high degree of social mobility is considered to be an indicator of social justice in a society, increased social mobility may, as a result of health selection, lead to in an increase in figures reporting health inequalities. Since healthy individuals are more likely to experience upward mobility, while individuals with poor health are more likely to move downward the social ladder, this should cause the gap between higher and lower social classes to widen (66, 67).

Other researchers have argued that health-related mobility rather constrains health inequalities since upwardly mobile individuals tend to have worse health than those in the class they join, while downwardly mobile individuals tend to have better health than those in the class they join, thereby leading to in a decrease in figures reporting health inequalities (68, 69).

The present review showed that class mobility was associated with health in the sense that low childhood cognitive ability was strongly associated with higher mortality before age 65 years, but overall evidence suggested little to no effect of social mobility on health.

Related to the term “Poverty”, our review finds a study that prevent that children who grow up in marginal or poor neighbourhoods presented serious problems of health, although in many cases conclusions are not based on an empirical estimate of formal models.

Overall, no association was detected between educational status and hypertension, whereas a positive association was observed in relation to income, although some studies have shown that disadvantaged groups are at greater risk for CVD and that another large group at higher risk for CVD includes people living in LMICs. Moreover, one research paper demonstrates the relationship between bad nutrition during childhood and diabetes.

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In addition, it has been noted that articles on clinical trials for minority populations with low income indicated an increase in studies focusing on the selection of individuals from minority groups and low income in clinical research.
Our review by term “Social class” shows that some studies show strong evidence for health inequalities related to education and gender, chiefly for obesity, self-rated health and mental health.

Some studies found a significant association between socioeconomic position early in life and physical activity during adulthood. Some authors report that multi morbidity is associated with lower disposable income and with smaller household size.

In another vein, there is empirical evidence on the relationship between socioeconomic status and cardiovascular health, showing that with the exception of smoking, cardiovascular diseases, and risk factors such as obesity, diabetes, elevated lipids, and hypertension are in general more prevalent among the higher socioeconomic status (SES) groups in India.
Other authors find that there were no statistically significant differences between occupational classes for the health outcomes involving musculoskeletal symptoms and job stress.

In relation to the term “Social Position”, this review evidence supports that unstable or inadequate housing and homelessness are associated with differential utilisation of HIV care, reduced treatment effectiveness, and HIV transmission risk behaviours.

A study provides further evidence that inequalities in mortality rate by socioeconomic position persist into the oldest ages for both men and women.

Some authors show that current smoking status and hypertension were more prevalent among those with low education. Low versus high education was associated with greater ischaemic, but not haemorrhagic, stroke incidence.

There was no clear evidence of interaction between low education and hypertension, although for other authors, poorer SEP was associated with poorer subjective health and well-

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being; these associations tended to be weaker in the oldest age groups.

It should be pointed out that a study shows an increased risk of gastric cancer among the lowest SEP categories in education, occupation, and combined SEP compared with the highest SEP categories.

For some authors, experiencing poorer socioeconomic circumstances during childhood carries a higher risk of overall mortality, independent of adult socioeconomic position, although breast cancer mortality was inconsistently related to childhood SEP as well as prostate cancer associations.

5 CONCLUSIONS

The heterogeneity of studies reviewed made it difficult to synthesise the results and assess the impact of factors considered on outcomes. However, the empirical findings on this topic could be summarised as follows.

Firstly, two-thirds of the studies reviewed have shown evidence suggesting an effect of social mobility on health, and one-third has shown evidence for no effect. In addition, 78 .5% of the studies identified in this research present qualitative rather than quantitative synthesis.

Secondly, populations in the studies reviewed belong mainly to migrants, children, and older population groups. Hence, the pathologies focused by the papers revised were: CVD, mental disorders, AIDS, diabetes, asthma and allergies, gastric cancer, breast cancer, and hypertension.

Thirdly, the social and health policy implications of the papers are that measures of intervention and prevention should be implemented early in life in order to resist the accumulation of adverse social circumstances, if at all possible.

Finally, our results make clear that social mobility measures convey additional information to

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that contained in the purity indices. As a consequence, the use of social position indices and its impact on health inequalities could be empirically useful. Definitively, further evidence on this topic is needed.

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Table 1. Search Strategy

#	Search term
	PubMed
#1	Health [Title/Abstract]
#2	Class mobility [Title/Abstract]
#3	Poverty [Title/Abstract]
#4	Social Class [Title/Abstract]
#5	Social position [Title/Abstract]
#6	Limit to: journal article; year of publication >= 2010; English; human subjects, free-full text
	Cochrane Library
#1	Health [Title/Abstract]
#2	Class mobility [Title/Abstract]
#3	Poverty [Title/Abstract]
#4	Social Class [Title/Abstract]
#5	Social position [Title/Abstract]
#6	Limit to: journal article; year of publication >= 2010; English; human subjects, free-full text
	SciELO
#1	Health [Title/Abstract]
#2	Class mobility [Title/Abstract]
#3	Poverty [Title/Abstract]
#4	Social Class [Title/Abstract]
#5	Social position [Title/Abstract]
#6	Limit to: journal article; year of publication >= 2010; English; human subjects, free-full text
	CRD (York)
#1	Health [Title/Abstract]
#2	Class mobility [Title/Abstract]
#3	Poverty [Title/Abstract]
#4	Social Class [Title/Abstract]
#5	Social position [Title/Abstract]
#6	Limit to: journal article; year of publication >= 2010; English; human subjects, free-full text

Source: Own elaboration

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Figure 1. Flow diagram of paper selection process

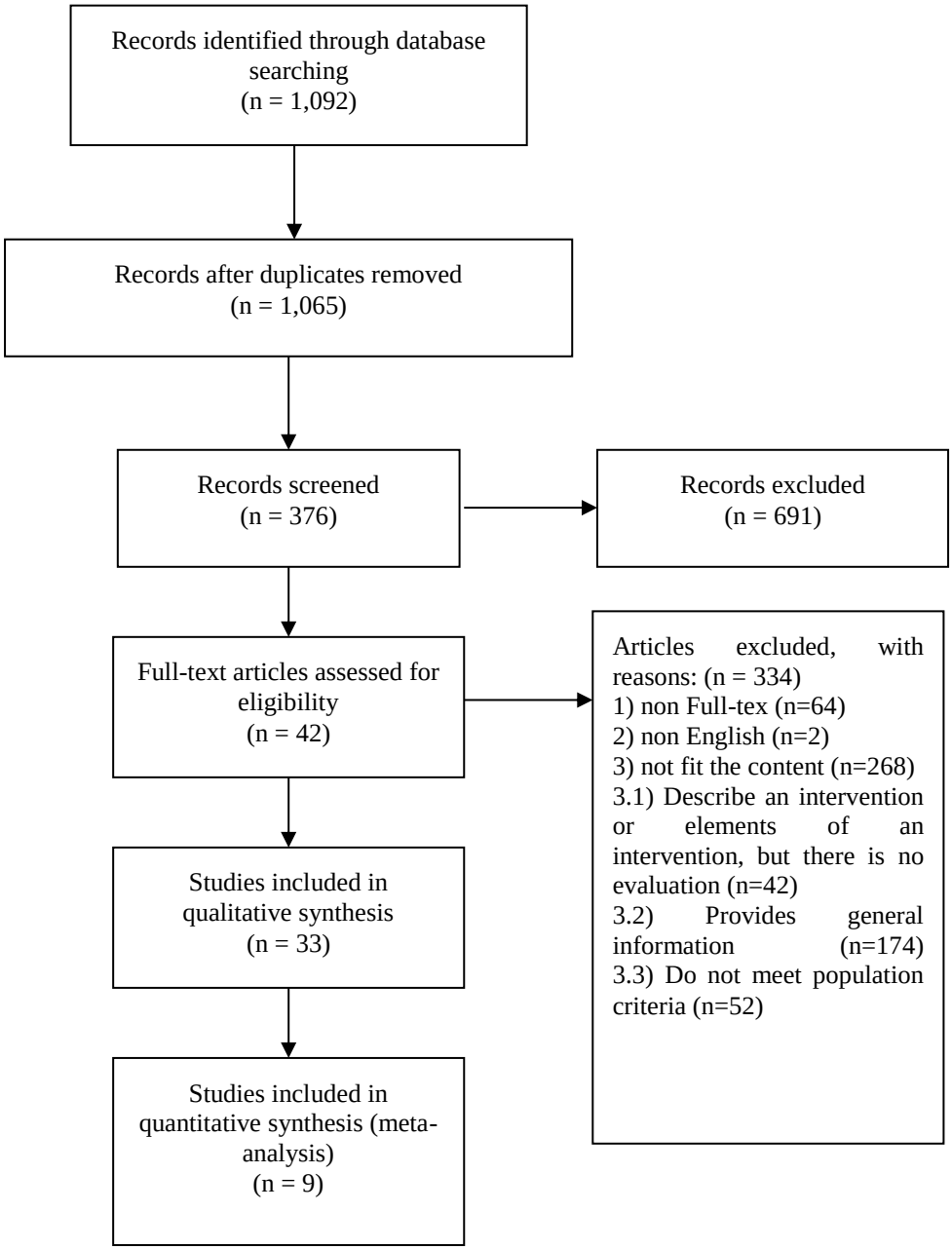

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TABLE 2	YEAR	COUNTRY	METHODOLOGY	RESULTS (COMPARATIVE RISKS)
Martin Siegel & Paul Allanson (2016)	1978-2015	Germany	Literature review to evaluate different approaches to monitor inequalities and to identify potential causal relationships between socioeconomic status and health evolved .	Heterogeneities in health inequalities and in the associations between determinants of health and health have long been regarded as a merely technical issue involving potential biases, with researchers developing sophisticated “black box” approaches to account for them.
L. Gruer , C.L. Hart, G.C.M. Watt (2015)	1978-2013	Scotland	Literature review: Authors read and summarized 48 peer-reviewed papers about all-cause and cause specific mortality in three cohorts (the Main & Tiree Study (1965-68), the Collaborative Study (1970-73) and the Renfrew & Paisley Study (1972-76).	Mortality rates were highest among men whose paternal, own first and most recent jobs were manual. Upward and downward social mobility conferred intermediate mortality rates. Low childhood cognitive ability was strongly associated with low social class in adulthood and higher mortality before age 65 years.
Claire L Niedzwiedz, Srinivasa V Katikireddi, Jill P Pell and Richard Mitchell	1980-2010	U.K.	Systematic literature review: A review protocol was developed detailing explicit inclusion and exclusion criteria, search terms, data extraction items and quality appraisal procedures. Literature searches were performed in 12 electronic databases	Seven studies assessed social mobility models. Social mobility models were supported in some studies, but overall evidence suggested little to no effect.

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			during January 2012 and the references and citations of included articles were checked for additional relevant articles. Narrative synthesis was used to analyze extracted data and studies were categorized based on the life course model analyzed	
Das-Munshi J, Leavey G, Stansfeld SA, Prince MJ.	1978-2010	U.K.	Systematic review and meta-analysis of English-language studies assessing the association of social mobility in migrant or second-generation groups with common mental disorders. Approaches to operationalise 'social mobility' were reviewed	Downward intragenerational mobility associated with migration may be associated with vulnerability to common mental disorders in some migrant groups.
de Francisco Shapovalova N, Donadel M, Jit M, Hutubessy R.	1950-2013	lower- and middle-incomecountries (LMIC)	6 Authors conducted an all language literature search across 5 key databases using an extensive list of key words for the time period 1950-2013. Authors included studies which explored direct costs (medical and non-medical), indirect costs (productivity losses), and broader economic impact in LMIC associated with different influenza outcomes such as confirmed seasonal influenza infection, influ enza-like illnesses, and	Compared to high-income economies, direct costs in LMIC were lower and productivity losses higher.

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			pandemic influenza	

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STUDY	YEAR	COUNTRY	METHODOLOGY	RESULTS (COMPARATIVE RISKS)
Zhaohui Cui , Elisabeth M. Seburg , Nancy E. Sherwood , Myles S. Faith and Dianne S. Ward	2000-2014	USA	First, completed home-, community-, and school-based trials involving minority or low-income children aged 2–17 years were identified in a search of the ClinicalTrials.gov registry. Second, a PubMed search of identified trials was conducted to locate publications pertinent to identified trials. Recruitment and retention rates were calculated for studies that included relevant information	Retention rates were lower in studies that: targeted solely Hispanics or African Americans (vs. mixed races of African Americans, whites, and others); involved children and parents (vs. children only); focused on overweight or obese children (vs. general children), lasted ≥1 year (vs. <1 year) . Retention rates did not vary based on child age, number of intervention sessions, or sample size.
Joana Dourado Martins ,	-2012	Brazil	A systematic search was performed in	The results showed a strong association

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Jarielle Oliveira Mascarenhas Andrade , Valéria Souza Freitas e Tânia Maria de Araújo			Pubmed database and published until 2012. Twenty-one articles were included in the study.	between oral cancer and social deprivation; socioeconomic status and income; education and occupation.
Mamusu Kamanda and Osman Sankoh	1998-2013	Thailand, South Africa, Kenya, Ethiopia, Tanzania, India, Bangladesh, China, Cambodia, Chile, Burkina Faso, Malawi, Uganda, Cameroon, Ivory Coast, Guinea, Togo, Ghana, Nigeria, Zambia	Using Web of Science, authors recorded studies according to: 1) school outcomes; 2) whether longitudinal data were used; and 3) whether data from more than one country were analysed	Of 132 publications which we found to be relevant to school access, 33 made use of longitudinal data and 17 performed crosscountry analyses
Yeates K, Lohfeld L, Sleeth J, Morales F, Rajkotia Y, Ogedegbe O.	1990-2008	USA, Canada, Mozambique	Literature review	This research has shown that disadvantaged groups are at greater risk for CVD. The inverse relationship between socioeconomic status (SES) – a

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				combined sociological and economic measure of one's work experience and relative economic and social position based on income, education and occupation -- and CVD incidence and mortality has been shown across several populations.
Siron S, Dagenais C, Ridde V.	2000-2013	the 36 low-income countries identified by the World Bank (AFGHANISTAN,BENIN,BURKINA FASO,BURUNDI,CENTRAL AFRICAN REPUBLIC, CHAD, COMOROS, CONGO, DEM. REP.ERITREA, ETHIOPIA, GAMBIA, GUINEA, GUINEA-BISSAU, HAITI, KOREA, DEM. PEOPLE'S REP. LIBERIA, MADAGASCAR, MALAWI, MALI, MOZAMBIQUE, NEPAL, NIGER, RWANDA, SENEGAL, SIERRA LEONE, SOMALIA, SOUTH	Authors used the scoping review method, inclusion criteria: (1) the study was conducted in a low-income country; (2) it focused on examining knowledge transfer processes and/or their outcomes; (3) it	Results were positive and suggested recommendations for improving professional practices, knowledge and health-related behaviours. The review highlights the great diversity of transfer strategies used,

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		SUDAN, TANZANIA, TOGO, UGANDA, ZIMBABWE)	was empirical, i.e., based on data collection and analysis; and (4) it was published in English or French. Their Our analysis of the research designs was guided by the Mixed Method Appraisal Tool (MMAT).	strategies and many conditions for knowledge use.
Nicholson, L.M., Schwirian, P.M. & Groner (2015)	2004-2014	United States	Review of the literature from the databases Medline, Psych INFO and PsycBSTRACTS	Results indicated an increase in studies focusing on the selection of individuals from minority groups (African Americans/Blacks = 42%, Latinos /Hispanics = 29%) and low income in clinical research. The greater part of papers is focused on cancer treatment studies (29%), obesity

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				and overweight (18%) and AIDS (15%). By type of studies, most are clinical trials (56%) and prevention or intervention trials (15%). The 80% of articles are mostly descriptive.
Van Vuuren CL; Reijneveld SA, Van der Wal MF & Verhoeff AP (2014)	2004-2013	United States, Netherlands and Canada	Review of articles included in Embase, Mediline, Psychinfo and Social Abstracty Social Abstract on the effects on the health of children (0-18 years) that grow up in marginal or poor neighborhoods.	The 60% of studies it is confirmed that children who grow up in marginal or poor neighborhoods presented serious problems of health. However, in many cases conclusions are not based on the empirical estimate of formal models.
Busingye D, Arabshahi S,	1982-2011	China, India, Cameroun, Turkey, Mexico, Vietnam, Mongolia,	A review of the articles (in Spanish,	No association was detected

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Subasinghe AK, Evans RG, Riddell MA, Thrift AG (2014)		Bangladesh, Thailand, Indonesia, Iran, Ghana, Nepal, Tanzania, Malawi, Rwanda, Uganda, Brazil	English, Portuguese and French) from PUbMed, WOS and Scopus and EMBASE that relate the socioeconomic status of the population to the probability of hypertension in rural populations in low/middle income countries. Meta-analyses were conducted using a random effects model.	between educational status and hypertension, whereas a positive association was observed with income. Educational status was inversely associated with hypertension in East Asia {effect size [ES] 0.82 [95% confidence interval (CI) 0.78, 0.87]} but positively associated in South Asia [ES 1.28 (95% CI 1.14, 1.43)]. Higher income, household assets or social class were positively associated with hypertension in

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				South Asia whereas no association was detected in East Asia and Africa.
Aizer A, Currie J. (2014)	1999-2011	United States	This article analyzes the intergenerational transmission of inequality, taking into account maternal and health disadvantages at birth.	Results demonstrate maternal disadvantage in matter of health, derived from exposure to harmful environmental factors; worse access to health care, including family planning involve a clear disadvantage for the future of children. Women with an income below 25,000 euros per year experience a probability 2.5 times higher of be victims of genre violence.

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Vos AA, Posthumus AG, Bonsel GJ, Steegers EA, Denktaş S (2014)	1999-2012	United Kingdom, Canada, Australia, Spain, and Switzerland	A systematic review, based on Medline, Embase and Web of Science of studies analyzing the results of perinatal in economically depressed neighborhoods or areas.	Residing in an economically depressed neighborhood implies an increased probability of preterm birth and a reduced size of the baby during the gestational period. The prevalence of preterm births ranged from 3.8%- 6.7% in the least deprived quintile (5.6-11.9% for the most deprived quintile). Stillbirth rates ranged from 3.2% -6.3% per 1000 births in the least deprived quintiles (4.6% - 7.0% per 1000 births in the most deprived quintile).

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Hillier-Brown FC, Bambra CL, Cairns JM, Kasim A, Moore HJ, Summerbell CD(2014)	1985-2012	United States, Brazil, Chile, Brazil. Peru, Netherlands, Finland, France, Australia,and Israel	This article performs a systematic review of the efficiency of individual, community and social interventions measures in the reduction of the socioeconomic inequalities in obesity among children. It is based on results from 23 papers.	Diets and/or activity physical for children of 0-18 years are fundamental to reduce obesity incidence.
Subramanian SV, Corsi DJ, Subramanyam MA, Smith GD (2013)	1980-2009	India	The aim of the article is to review the empirical evidence on the relationship between socioeconomic status and cardiovascular health in the India. 53 surveyed studies.	With the exception of smoking, cardiovascular diseases and risk factors such as obesity, diabetes, elevated lipids and hypertension are in general more prevalent among the higher socioeconomic status (SES)

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				groups in India.
McEniry M. (2013)	2005-2011	Mexico, China, Costa Rica, Brazil, Puerto Rico, major cities of the Caribbean countries	This paper reviews 20 articles on how the health conditions during the first years of life affects health status in the adult age.	Research demonstrates the relationship between a bad nutrition during childhood and diabetes, the correlation between diseases in the childhood and in the adult life, and the negative correlation between lower socioeconomic level and adult mortality.

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SOCIAL CLASS				
STUDY	YEAR	COUNTRY	METHODOLOGY	RESULTS (COMPARATIVE RISKS)
Campos-Matos I, Russo G, Perelman J.	2000-2015	Portugal	We followed the PRISMA guidelines and searched Scopus, Web of Science and PubMed for studies that looked at the association between a measure of socioeconomic status and a health outcome in the Portuguese resident population since the year 2000. We excluded health behaviours and healthcare use from our search. We performed a qualitative description of the results.	Strong evidence for health inequalities related to education and gender, chiefly for obesity, self-rated health and mental health.
Barriuso L, Miqueleiz E, Albalade jo R, Villanueva R, Santos JM, Regidor E..	1990-2013	27 richest OECD countries	Literature review to describe the findings on the relationship between socioeconomic position SEP and childhood-adolescent weight status. Studies were identified in the following databases: PubMed; Web of Knowledge (WOK); PsycINFO; Global Health; and Embase. Authors included observational studies which covered study populations aged 0 to 21 years,	60.4 % of studies found an inverse relationship, 18.7 % of studies did not found relationship, and 20.9 % of studies found a relationship that varied depending on another variable, such as

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			and used parental education, income and/or occupation as family SEP indicators. A total of 158 papers met the inclusion criteria and reported 134 bivariable and 90 multivariable analyses.	age, sex or ethnic group;
Hajat A, Hsia C, O'Neill MS.	2005-2015	USA, Canada, Nueva Zelanda, Ghana, Hong Kong, Czech Republic, England, Sweden, Netherlands, Spain, France	A systematic review was conducted to identify all published studies on SES and ambient air pollution exposure. Given the differing methods used to assess the association between SES and air pollution authors did not attempt to quantify the overall magnitude of effect. Instead, we focused on describing the directionality of results to better understand if an overall trend emerges from the literature. They also discuss methodological issues, such as the analytic techniques employed to assess the association between SES and air pollution and the unit of analysis chosen by researchers.	low socioeconomic status (SES) communities dwell experience higher concentrations of criteria air pollutants, while European research has been mixed. Research from Asia, Africa and other parts of the world has shown a general trend similar to that of North America, but research in these parts of the world is limited.
Juneau CE,	1947-2014	USA, Sweden,	Systematic review: Medline and EMBASE were searched for studies	Found a significant

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Benmarhnia T, Poulin AA, Côté S, Potvin L.		Denmark, Finland, Norway, New Zealand, UK, Belgium, Australia, Brazil, China, Spain, Slovakia, Netherlands	that assessed socioeconomic position before age 18 years and physical activity at age ≥18 years. Studies were rated according to three key methodological quality criteria: (1) was childhood socioeconomic position assessed prospectively? (2) Was socioeconomic position during adulthood included in the statistical analysis? (3) Was a validated instrument used to measure of physical activity?.	association between socioeconomic position early in life and physical activity during adulthood.
Onder G, Palmer K, Navickas R, Jurevičienė E, Mammarella F, Strandzheva M, Mannucci P, Pecorelli S, Marengo	2000-2015	EU countries	Authors summarizes first results of the JA-CHRODIS (Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle) in the context of the 2nd EU Health Programme 2008–2013., focuses on the identification of a population with multimorbidity who has a high or very high care demand. Identification of characteristics of multimorbid patients associated with a high rate of resource consumption and negative health outcomes is necessary to define a target population who can benefit from	Socioeconomic status is an important source of health inequity, as there is a robust positive correlation between socioeconomic status and health. Socioeconomic indicators are also closely associated with

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ni A.			interventions. Indeed, multimorbidity alone cannot explain the complexity of care needs and further, stratification of the general population based on care needs is necessary for allocating resources and developing personalized, cost-efficient, and patient-centered care plans. Based on analyses of large databases from European countries a profile of the most care-demanding patients with multimorbidity is defined.	prevalence of chronic diseases and healthcare expenditures of patients with multimorbidity. Hopman and colleagues report that multimorbidity is associated with lower disposable income and with smaller household size, the prevalence of multimorbidity, and thus the level of need of provision, are greater among more deprived persons, and that poorer people and people with lower levels of education are less likely to benefit from improvements in

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				public health.
Busingye D, Arabshahi S, Subasinghe AK, Evans RG, Riddell MA, Thrift AG.	1982-2011	China, India, Cameroon, Turkey, Mexico, Vietnam, Mongolian, Iran, Bangladesh, Thailand, Ghana, Malawi, Rwanda, Nepal, Tanzania, Brazil, Gambia, Uganda	Through a systematic research authors identified population-based studies that presented risk estimates for the association between SES, or any of its proxies, and hypertension. Meta-analyses were conducted using a random effects model.	Overall, no association was detected between educational status and hypertension, whereas a positive association was observed with income. Interestingly, educational status was inversely associated with hypertension in East Asia {effect size [ES] 0.82 [95% confidence interval (CI) 0.78, 0.87]} but positively associated in South Asia [ES 1.28 (95% CI 1.14, 1.43)].
Hillier-	1986-	USA	Authors want to systematically	there was

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Brown FC, Bambra CL, Cairns JM, Kasim A, Moore HJ, Summerbell CD.	2012		review studies of the effectiveness of individual, community and societal interventions in reducing socio-economic inequalities in obesity among adults. Nine electronic databases were searched from start date to October 2012 along with website and grey literature searches. The review examined the best available international evidence (both experimental and observational) of interventions at an individual, community and societal level that might reduce inequalities in obesity among adults (aged 18 years or over) in any setting and country. Studies were included if they reported a body fatness-related outcome and if they included a measure of socioeconomic status. Data extraction and quality appraisal were conducted using established mechanisms and narrative synthesis was conducted.	evidence of the effectiveness of primary care delivered tailored weight loss programmes among deprived groups. Community based behavioural weight loss interventions However, there was no evidence to suggest that interventions increase inequalities
Montano D, Hoven H, Siegrist	1985-2012	Germany	The aim of this review was to assess what types of socioeconomic positions (SEP) are being considered in randomized	There were no statistically significant differences

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J.			controlled intervention studies and estimate the moderation of SEP in workplace intervention effects on body mass index (BMI), fruit and vegetable consumption, musculoskeletal symptoms, and job stress. A meta-analysis of randomized controlled workplace interventions was undertaken. Studies were classified by participants' SEP. The overall standardized mean difference (SMD) for each outcome was estimated with random-effects models. Additionally, a random-effects model with SEP as moderating variable was calculated in order to assess intervention effect modification (EM).	between occupational classes for the health outcomes considered (SMD -0.102, 95% CI -0.264–0.060, EM -0.141, 95% CI -0.406–0.125; SMD 0.117, 95% CI -0.049–0.282, EM 0.000, 95% CI -0.230–0.231; SMD -0.301, 95% CI -0.494– -0.107, EM -0.369, 95% CI -1.169–0.430; and SMD -0.200, 95% CI -0.524–0.124, EM -0.598, 95% CI -1.208–0.012, respectively).
Subramanian SV, Corsi DJ, Subramanyam MA, Smith	1980-2012	India	In this essay, based on a systematic review (MEDLINE database), authors review the studies reporting the socioeconomic patterning of cardiovascular risk factors (CVRF), cardiovascular disease (CVD) and CVD-related	CVRF/CVD is more prevalent among high SES groups in India than among the low SES groups. Although CVD-

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GD.			mortality in India. Drawing upon the epidemiological transition model.	related mortality rates appear to be higher among the lower SES groups, the proportion of deaths from CVD-related causes was found to be greatest among higher SES groups.
Scollan-Koliopoulos M, Bleich D, Rapp KJ, Wong P, Hofmann CJ, Raghuwanshi M.	2013	USA	The purpose of this study was to survey urban, very low-income, hospitalized adults with diabetes about diseaseseverity, anticipated disease trajectory, and self-rated health-related quality of life. Data were collected using the Brief Illness Perception Questionnaire, the 36-item Short Form Health Survey (SF-36), the comparative risk perception questionnaire, and glycosylated hemoglobin. Data were entered into a statistical software program and analyzed using SPSS version 18.0.28 The mean score for each survey was calculated for illness	Perceived risk of diabetes related-complications, diabetes severity, and duration of diabetes were significantly and negatively associated with health-related quality of life ($F(3, 68) = 3.08$, $P = .03$), explaining 35% variance in scores.

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			perceptionthreat and quality of life. Risk perception was calculated by taking perceived risk for developing 1 or more additional diabetes-related complications. Hypotheses were tested using hierarchical linear multiple regression analyses using listwise deletion for missing values. A sample size of 100 was estimated to be able to detect small effects of independent variables and differences between mean scores on quality of life with 80% power using GPOWER.	
Wang Y, Lim H.	1991-2011	Brazil, Britain, Hong Kong, the Netherlands, Singapore, USA, Ghana, India, Norway, Oman, Canada, Malaysia	This paper describes the current prevalence and time trends of childhood obesity worldwide, and the association between childhood obesity and socio-economic status (SES). Childhood obesity has become a global public health crisis.	The prevalence is highest in western and industrialized countries, but still low in some developing countries. SES groups with greater access to energy-dense diets (low-SES in industrialized countries and high-SES in

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		, Vietnam, China, Australia, South Korea, Japan, Egypt Kuwait, Iran, New Zealand, Seychelles, Russia, Poland, Finland, France, Germany, Italy, Spain, Mexico.		developing countries) are at increased risk of being obese than their counterparts.
Sewell JL, Velayos FS.	2010-2011	USA	Using guidelines published by the Centre for Reviews and Dissemination, authors performed a systematic review of the world's literature to identify studies related to: (1) IBD, (2) race/ethnicity, (3) SES, (4) healthcare delivery, and (5) healthcare effectiveness.	Authors identified race- and SES-based disparities in the content of medical and surgical healthcare, utilization of

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				inpatient and ambulatory medical care, adherence to medical therapy, and disease perceptions and knowledge. Several studies also identified race- and SES-based disparities in outcomes for IBD, including in-hospital mortality rates and health-related quality of life.
Bleich SN, Jarlenski MP, Bell CN, LaVeist TA.	1980-2007	USA, U.K., Canada, Australia, New Zealand, Spain,	This review describes time trends in health inequalities (by sex, race/ethnicity, and socioeconomic status), commitments to reduce health inequalities, and progress made to eliminate health inequalities.	Time-trend data in the United States indicate a narrowing of the gap between the best- and worst-off groups in some health indicators, such as life expectancy, but a

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				widening of the gap in others, such as diabetes prevalence. Similarly, time-trend data in the United Kingdom indicate a narrowing of the gap between the best- and worst-off groups in some indicators, such as hypertension prevalence, whereas the gap between social classes has increased for life expectancy.
Das-Munshi J, Leavey G, Stansfeld SA, Prince MJ.	1999-2011	Turkey, Canada, Sweden, USA	The main objective of this review was to assess the association of social mobility with common mental disorders in migrant and second-generation groups, to inform future research. Systematic review and meta-analysis of English-language studies assessing the association of social mobility in	Downward intragenerational social mobility was associated with migration in the majority of studies. Random effects meta-analysis (*n*=5179)

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			migrant or second-generation groups with common mental disorders. Approaches to operationalise 'social mobility' were reviewed.	suggested that migrants to higher income countries who experienced downward mobility or underemployment were more likely to screen positive for common mental disorders, relative to migrants who were upwardly mobile or experienced no changes to socio-economic position.

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SOCIAL POSITION				
STUDY	YEAR	COUNTRY	METHODOLOGY	RESULTS (COMPARATIVE RISKS)
Aidala et al (2016)	1996-2014		Sistematic review that analyzes the empirical evidence on the association between housing status, medical care, and health outcomes among people with HIV. The authors selected quantitative analyses published in English, French, or Spanish that included at least 1 measure of housing status as an independent variable and at least 1 health status, health care, treatment adherence, or risk behavior outcome among people with HIV in high-income countries. Searches yielded 5528 references from which we included 152 studies, representing 139,757 HIV-positive participants. Most studies were conducted in the United States and Canada. Studies examined access and utilization of HIV medical care, adherence to antiretroviral medications, HIV clinical outcomes, other health outcomes, emergency department and inpatient utilization, and sex and drug risk behaviors	Evidence supports that unstable or inadequate housing and homelessness are associated with differential utilization of HIV care, reduced treatment effectiveness, and HIV transmission risk behaviors. Improved housing appears to improve access and retention in care and clinical and other outcomes.
Huisman et al (2013)	1995-2011	WHO Europe region	The article is based on part of a broader systematic review on inequalities and health: Report on the Task Group on Older People. The review describe the evidence based on inequalities on health, as well as in access to health care, according to age, gender and socioeconomic position (SEP) in the older European population. Of the initial selection of 5,079 records, 175 articles were identified as relevant. Of	The review provided further evidence that inequalities in mortality rate by socioeconomic position persist into the oldest ages for both men and women in all countries analysed.

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			these, 44 articles were selected for the review.	
Laba et al. (2013)	1996-2012	Several countries	Authors developed a systematic review that considers randomized/quasi randomized controlled trials, testing strategies to increase adherence to cardiovascular diseases (CVD) related medications prescribed to adult patients who may experience health inequity (place of residence, occupation, education or socioeconomic position). Authors reviewed 772 abstracts, and 16 full-text articles involving 7739 patients were included.	In high-income countries, it is estimated that up to 50% who are prescribed cardiovascular medications do not, at some point, adherence to therapy. These rates of non-adherence are greater still among marginalised groups. Evidence exists about what strategies improve adherence in disadvantage groups. Strategies found were generally complex and simultaneously targeting patients and physicians: addressing social, financial and treatment-related barriers; and supported by broader guidelines, regulatory and communication-based policies.
Nordahl et al (2013)		Denmark	Seven Danish cohort studies were linked to registry data on education and incidence of coronary heart disease (CHD). Methods for meditation based on the additive hazards model were applied. Results were compared with the Cox proportional hazards model. The highest attained educational level 1 year before bae-line examination was categorize in three groups: short education (8-11 years of basic schooling), medium education (11-14 years; upper secondary or vocational education), and long education (15 or	The study confirms previous claims based on the Cox proportional hazards model that behavioural risk factors, partially mediates the effect of education on CHD. Smoking and BMI partially explained the educational gradient in CHD.

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			more years of education)	
Nordahl et al (2014a)	14 years of follow-up from 7 population-based cohort studies	Denmark	The study examines 68643 men and women aged 30 to 70 years in Denmark in a pooled cohort study, during 14 years of follow-up. The authors analyse the combined effect and interaction between socioeconomic position (ie, education), smoking and hypertension on ischemic and hemorrhagic stroke incidence by the use of the additive hazards model. 3613 ischemic strokes and 776 hemorrhagic strokes were observed.	Current smoking and hypertension were more prevalent among those with low education. Low versus high education was associated with greater ischemic, but not hemorrhagic, stroke incidence. The combined effect of low education and current smoking was more than expected by the sum of their separates effects on ischemic stroke incidence, particularly among men. There was no clear evidence of interaction between low education and hypertension. Evidence supports the conclusion that reducing smoking in those with low socioeconomic position and in those with hypertension could potentially reduce social inequality stroke incidence.
Nordahl et al (2014b)	1980-2011	Denmark	Social Inequality in Cancer (SIC) cohort study was established by pooling prospective data from several existing cohorts. The inclusion criteria for enrolment in the SIC cohort were: a population-based study from Denmark with data on behavioural and biological risk factor of sub-types of cancer and other common outcomes (i.e. cardiovascular diseases); and a baseline examination after 1980. The SIC cohort	Select results from the different studies based on the SIC cohort are presented showing social inequality in cause-specific mortality, incidence of coronary heart disease and breast cancer when comparing low versus high educational level and the proportion mediated through smoking, alcohol, physical activity and BMI.

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			included 83006 participants aged 20-98 years at baseline.	
Read et al (2015)	1995-2013	Several countries	A systematic review is developed to ascertain to what extent there is evidence similar inequalities in the subjective health and well-being of older people in Europe. A total of 71 studies were identified including socio-economic position (SEP) and indicators of subjective health and well-being (self-rated health; life satisfaction; quality of life).	Poorer SEP was associated with poorer subjective health and well-being. Associations varied depending on the indicators used. Associations were weaker when social support and health-related behaviours were adjusted for suggesting that these factors mediate the relationship between SEP and subjective health and well-being. Associations tended to be weaker in the oldest age groups. Results demonstrate the importance of social influences on later subjective health and well-being.
* Uphoff et al (2014)	Several countries	-	The article develops a systematic review to clarify associations between socioeconomic position (SEP) and the prevalence of asthma and allergies. 4407 records were identified and 183 of them were included in the analysis.	Low SEP was associated with a higher prevalence of asthma in 63% of the studies. Research on allergies, however, showed a positive association between higher SEP and illness in 66% of studies. Pooled estimates for the odds ratio of disease for the highest compared with the lowest SEP confirmed these results for asthma (unadjusted OR 1.38, 95% CI 1.37-1.39). Sensitivity analyses with a subsample of high-quality studies led to the same conclusion.
*Uthman et al. (2013)	1966-2013	Several countries	Authors developed a systematic review and meta-analysis for analyzing the association between low socioeconomic position (SEP) and incidence of gastric cancer. Of 1549 citations they analyze 36 articles that met their inclusion criteria. The analysis is stratified by SEP indicators, sex, country´s income group, geographical area, level of adjustment for an established risk factor and study design among	Results, show an increased risk of gastric cancer among the lowest SEP categories in education (RII=2.97, 95% CI 1.923 to 4.58), occupation (RII=4.33; 95% CI 2.57 to 7.29. Although the association between the incidence of gastric cancer and the level of income is clear, it did not reach a statistically significant level (RII=1.25; 95% CI 0.93 go 1.68). Authors conclude that the risk of gastric

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			others.	cancer incidence is higher among low SEP groups.
Vohra et al (2015)	1996-2012	UK and northern European countries	This article performs a rapid-review for a total of 2437 abstracts. Applying specific criteria, 22 publications from 13 studies that specifically analysed individual measures of socioeconomic position (SEP) in childhood cancer outcomes in adulthood were analysed.	Individuals experiencing poorer socioeconomic circumstances during childhood carry a higher risk of overall mortality, independently of adult socioeconomic position. Childhood SEP, usually measured by father´s occupation, was related in most studies to lung cancer mortality in adulthood, although attenuated by adjustment for adult SEP. Stomach cancer mortality was also related to childhood SEP and unaffected by control of adult SEP. Colorectal cancer mortality was reported to be related to childhood SEP in three studies. Breast cancer mortality was inconsistently related to childhood SEP. Prostate cancer associations were also inconsistent.

Source: Own elaboration

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