13 *Understanding the social determinants of self-rated health: A basis for addressing health inequalities and strengthening families*

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Self-rated health (SRH) is among the most widely used measures of general health status in population-based social and epidemiologic health studies, and is based on the individual's perception of their health (Jylhä 2009). Numerous longitudinal studies have validated SRH as a surrogate for more objective health measures (Frankenberg & Jones, 2004; Jylhä et al. 2006). A series of national and international studies has consistently shown that SRH is a good predictor of health outcome, survival, impending morbidity and mortality of various diseases (DeSalvo et al. 2006; Frankenberg & Jones 2004; Halford et al. 2012; Murata et al. 2006). SRH is a social construct and the effects of social conditions on individual health have long been acknowledged (Brunner & Marmot 2005; Marmot & Wilkinson 2005). As such, SRH has been used as the outcome variable in studies that investigate social inequalities in health between population groups (Delpierre et al. 2009; Mackenbach et al. 2008).

Studies have explored the determinants of SRH to be able to understand factors that contribute to better health status and the role that SRH as a public health outcome plays in the prognosis of future risk factors for future survival/mortality and morbidity (Bailis et al. 2003; Idler & Benyamini 1997). Social, demographic, economic and behavioural/lifestyle factors play an integral part in shaping the SRH of individuals, communities and populations. Collectively these factors are known as 'social determinants of health' (Marmot & Wilkinson 2005; Raphael 2008). These factors are hypothesised to influence health primarily through their interaction and effects on social conditions, health practices and behaviours and access to medical care (Brunner & Marmot 2005; Fuchs 2004). As such, having an understanding of which determinants are most strongly associated with SRH can assist with prioritising interventions to address these determinants.

A large body of research in developed countries shows that social determinants of health have significant impact on SRH (Martin & Preston 1994). Yet, very few studies have investigated the extent to which social factors are associated with SRH in developing countries, including those in sub-Saharan Africa (Hosseinpoor et al. 2012). Addressing issues of health in developing countries throughout the world is important because, among other things, people face severe lifetime health problems compared to those in developed nations. In South Africa, while some research has been conducted to assess the impact of social determinants on SRH, most of the studies have focused on specific age groups, sex groups or patient groups, such as

the elderly and people living with HIV (Olgiati et al. 2012; Phaswana-Mafuya et al. 2013). Much less is known about the social determinants of SRH in the general population. Social determinants do not exist in isolation from each other, but combine to determine the health of individuals, communities and populations (Marmot & Wilkinson 2005; Raphael 2008). This chapter examines the effect of a wide range of social determinants on self-rated health in South Africa, using data from the 2014 South African Social Attitudes Survey (SASAS).

Methods

Data

The data for this study came from the 2011 Health and Health Care module of the International Social Survey Programme (ISSP) and the 2014 SASAS (ISSP 2013; SASAS 2015), conducted in 24 member countries: Americas (United States of America, Chile), western and eastern Europe (Great Britain, Finland, Denmark, Netherlands, Portugal, Norway, Sweden, Switzerland, France, Germany, Croatia, Czech Republic, Slovak Republic, Slovenia, Lithuania, Poland), sub-Saharan Africa (South Africa), the Middle East (Israel), and southeast Asia (Japan, Korea South, Taiwan, Philippines). The target population was adults aged 16 years or older who were living in private households. The surveys did not cover addresses that could not be traced at all/selected respondents who could not be traced, and addresses established as empty, demolished or containing no private dwellings. A more detailed description of the survey design is provided elsewhere (ISSP 2013; SASAS 2015).

In each ISSP member country, a survey questionnaire was constructed to measure a wide range of social matters in health including social inequalities with questions on sociodemographic and psychosocial factors, subjective health status, lifestyle factors, chronic diseases and healthcare visits (ISSP 2013; SASAS 2015). Pooled data from the 2011 ISSP were used for comparison of SRH among member countries, including South Africa. The 2014 SASAS health module was used for country-specific analyses. The analysis in this chapter included SRH in three domains: demographic and socioeconomic measures; health-related behaviours/lifestyle; and healthcare-related factors.

Self-rating of health

SRH is our primary independent variable, and was measured using a 5-point scale by asking respondents, 'How is your health in general? Would you say it is "very good" = 1, "good" = 2, "fair" = 3, "bad" = 4 or "very bad" = 5?'

Demographic and socioeconomic factors

Demographic measures included age (18–24, 24–49, 50–59, 60+), sex (male, female), and race (black African, coloured, Indian/Asian, white). Socioeconomic variables

included education (no schooling, primary, secondary no matric, matric/equivalent, tertiary), employment status (employed and unemployed) and family experience of severe financial difficulty (always, often, sometimes, hardly ever, never).

Behaviour/lifestyle factors

Health-related behaviour/lifestyle information included dietary intake: eat fruits (never, daily, weekly) or vegetables (never, daily, weekly), physical activity (yes/no), smoking habits (never smoked, smoked in the past, smoke a few times, smoke but not daily, smoke daily) and alcohol drinking habits (never, monthly, less than a month, weekly, daily).

Healthcare-related factors

Healthcare-related factors included presence of chronic conditions (yes/no), access to medical consultation or treatment in the last 12 months (yes/no), consultation with a nurse in the last 12 months (yes/no), consultation with other healthcare providers in the last 12 months (specialist, doctor, none of these).

Analysis

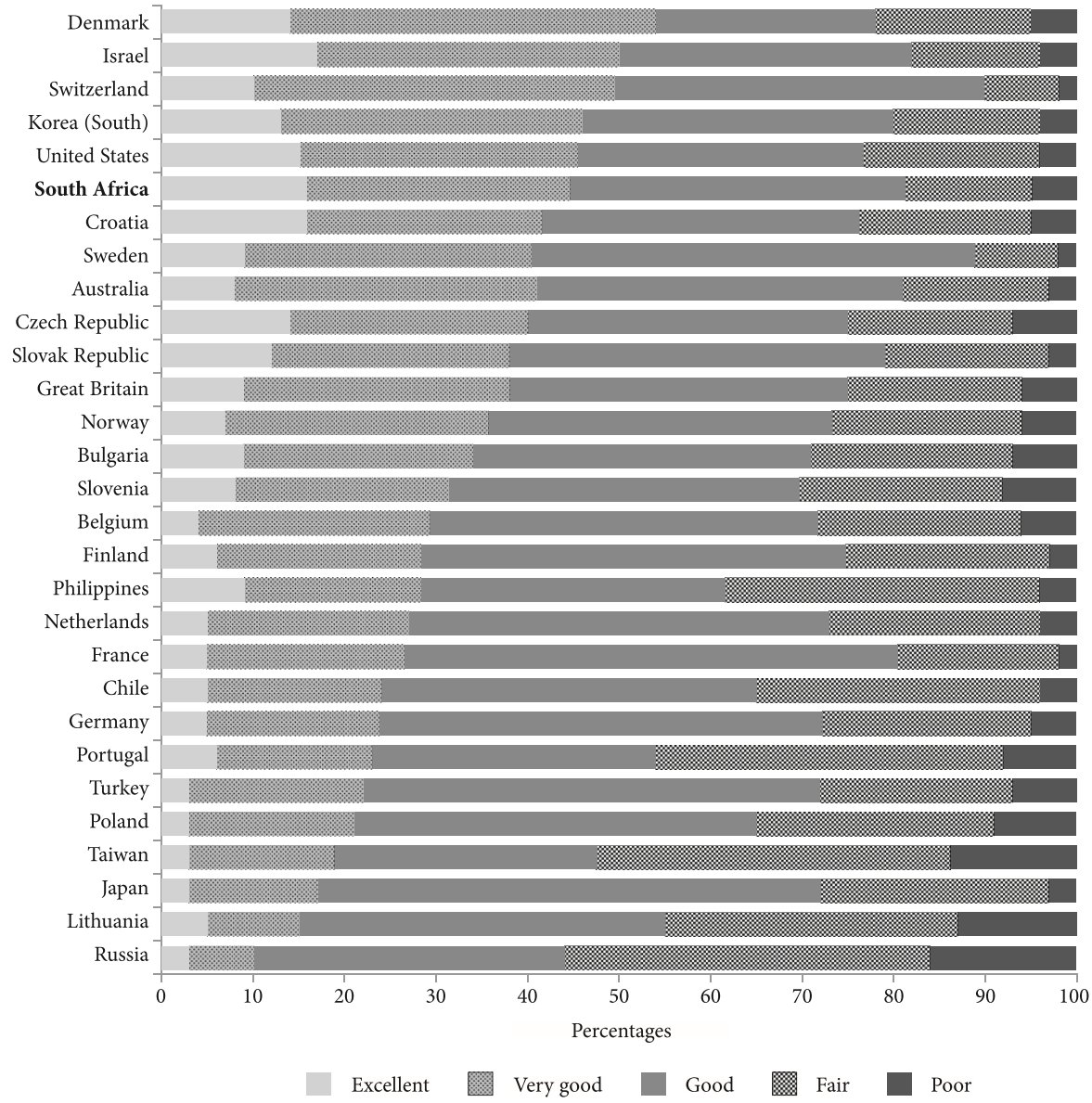
Distribution and levels of SRH among ISSP member countries were examined thorough descriptive comparison. Descriptive statistics were used to examine the characteristics of the general study population. The primary outcome variable was dichotomised into 'good SRH' = 1–2 (very good, good) and 'poor SRH' = 3–5 (fair, bad, very bad). The relationship between good SRH and potential explanatory variables was assessed though bivariate logistic regression analysis. Statistically significant variables were entered into a multivariate logistic regression to determine independent factors associated with good SRH. Likelihood (odds ratios [OR] with 95% confidence intervals [CIs] and p-values < 0.05) of good SRH as influenced by social determinants were reported for all statistically significant results. Analysis was weighted to take into account the complex sample design. All statistical analyses were performed using STATA statistical software (Stata Corporation, College Station, USA).

Results

Self-rated health across ISSP member countries

Figure 13-1 shows SRH across ISSP member countries, including South Africa. Overall, healthiest populations in terms of SRH were Denmark and Switzerland and the least healthy countries are Russia and Lithuania. Relative to other member countries, South Africa was rated the ninth-healthiest population. SRH is influenced by a variety of country-specific factors that impact perceptions of health. These factors may be similar or vary between countries, making cross-country comparison

Figure 13-1: *Distribution of self-rated health levels across countries, 2011*



Source: International Social Survey Programme (ISSP) 2011

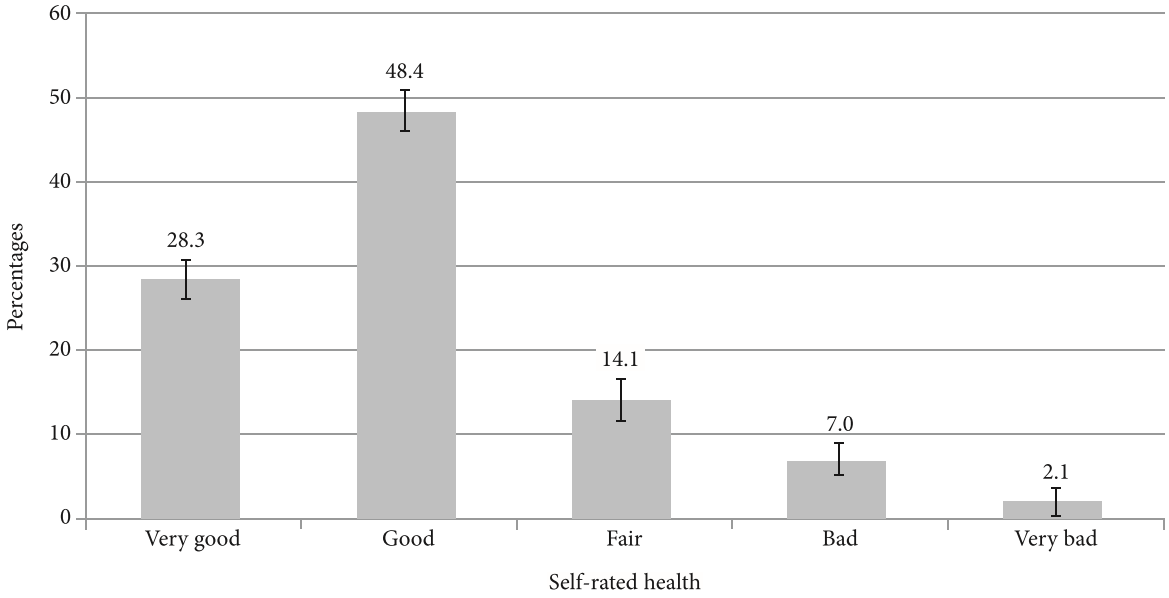
Note: Ranked in descending order by % responding excellent/very good

feasible or not feasible. There may also be differences among countries in various aspects of data collection, and some of these might affect the size of inequalities in health.

Self-rated health in the general population of in South Africa

SRH was summarised by demographic, socioeconomic, healthcare and behavioural/lifestyle factors. Figure 13-2 shows that, out of a total of 3 107 respondents, the majority reported good (48.4%) and very good (28.3%) SRH, 14.1% reported fair SRH, few reported bad (7.0%) and very bad SRH (2.1%).

Figure 13-2: *Self-rated health in the general population in South Africa, 2014*



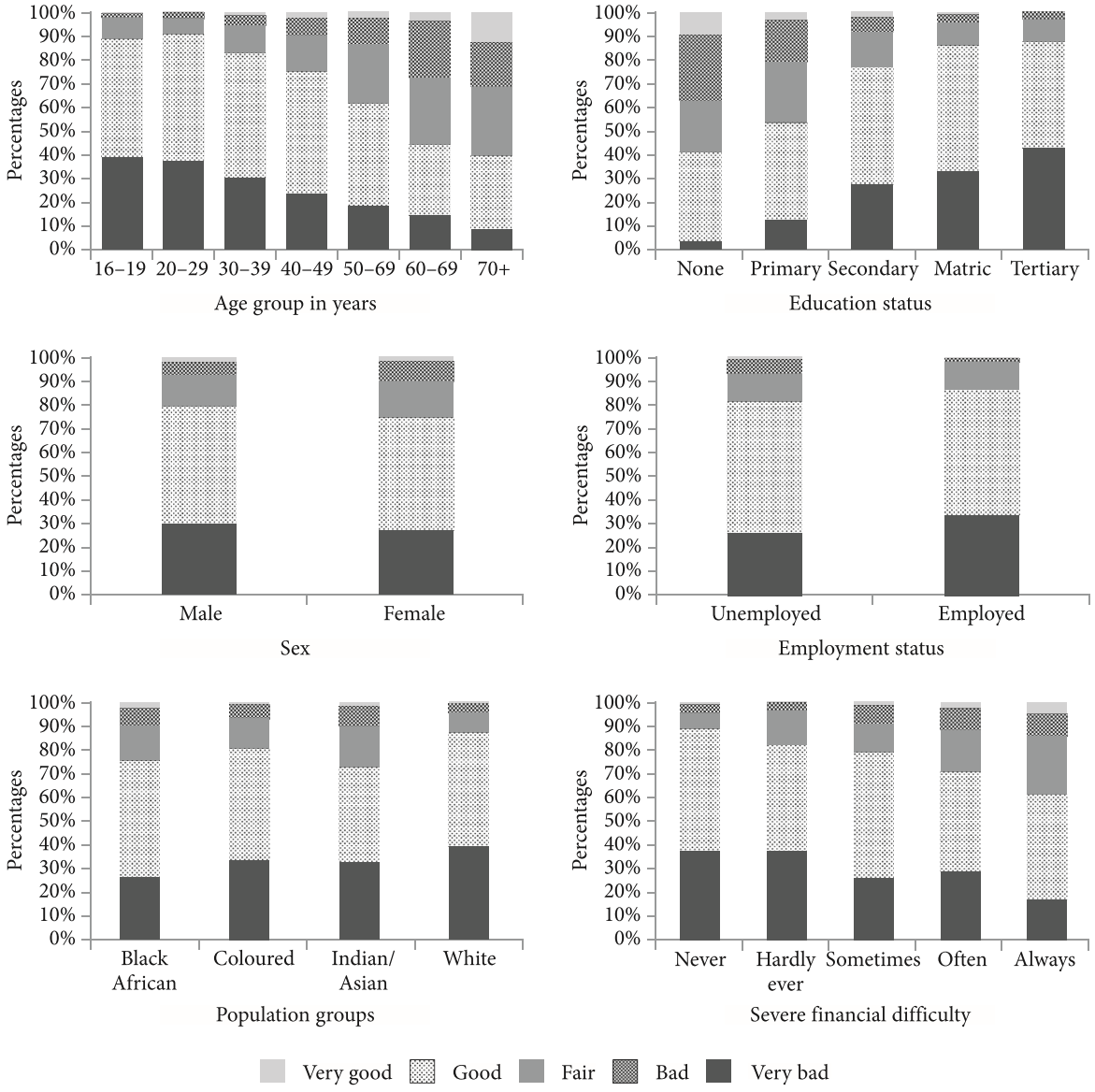
Source: South African Social Attitudes Survey (SASAS) 2014

Figure 13-3 shows SRH by demographic and socioeconomic variables. Reporting of very-good-to-good SRH decreased with increasing age, while reporting of fair, bad and very bad SRH was high among those 50 years and above. There was no significant difference in reported SRH by gender. Reporting of very-good-to-good SRH was higher among the white population; reporting of fair, bad and very bad SRH was higher among black Africans, coloureds and Indian/Asian populations.

Reporting of very-good-to-good SRH increased with high educational qualifications, while reporting of fair, bad and very bad SRH increased with low educational qualifications. A higher proportion of employed respondents reported very-good-to-good SRH, compared to their unemployed counterparts. Reporting of very-good-to-good SRH was higher among those whose families never or hardly ever experienced financial difficulties. Fair, bad and very bad SRH increased among whose families experienced financial difficulties sometimes, often and always.

Figure 13-4 shows SRH by behaviour/lifestyle factors. Reporting of very-good-to-good SRH was higher among participants who reported that they ate fruit, especially daily, and reporting of fair, bad and very bad SRH was high among those who never ate fruit. Similarly, reporting of very-good-to-good SRH was higher among those who ate vegetables daily, and reporting of fair, bad and very bad SRH was high among those who never ate vegetables. Furthermore, SRH varied between non-smokers and smokers, with no clear differences in SRH, although non-smokers tended to report good SRH. No clear pattern was also observed in SRH between respondents who engaged in excessive alcohol-drinking and those who did not. However, respondents who never engaged in excessive drinking and those who did so only monthly or less reported good SRH, while those who did so weekly or daily tended to report fair to bad SRH.

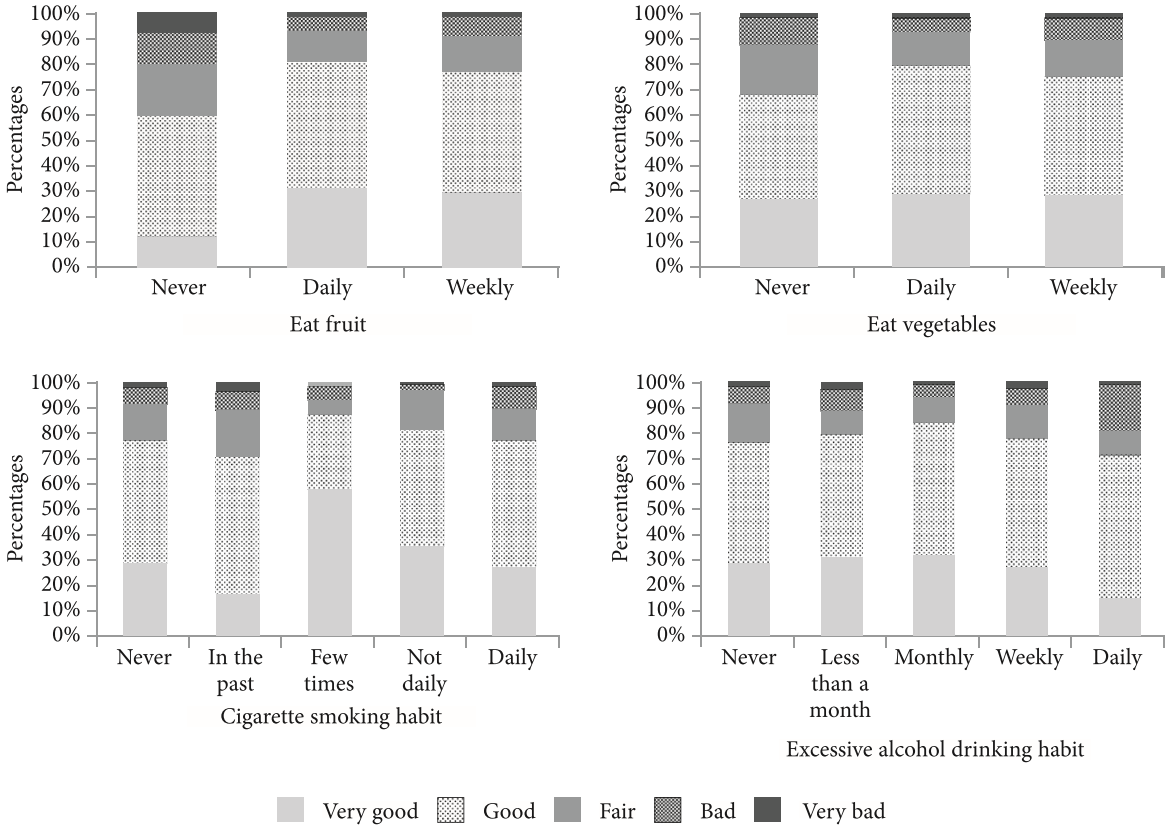
Figure 13-3: *Self-rated health in the general population, by age, sex, race, education status, employment status and experience of severe financial difficulty*



Source: SASAS 2014

Figure 13-5 shows SRH by healthcare-related factors. Reporting of very-good-to-good SRH was higher among respondents who declared no chronic conditions, and reporting of fair, bad and very bed SRH was higher among those with chronic conditions. Reporting of very-good-to-good SRH was higher among respondents who did not experience barriers to medical consultation, while fair, bad and very bad SRH was higher among those who reported barriers to medical consultation. Very-good-to-good SRH was higher among respondents who did had not discussed their health with a nurse in the last 12 months, while fair, bad and very bed SRH was higher among those who had. Similarly, reporting of very-good-to-good SRH was higher among respondents who visited health personnel other than specialists or doctors; among those who did, reporting of fair, bad and very bed SRH was higher.

Figure 13-4: *Self-rated health in the general population, by dietary intake (fruit and vegetables), smoking and alcohol drinking habits*



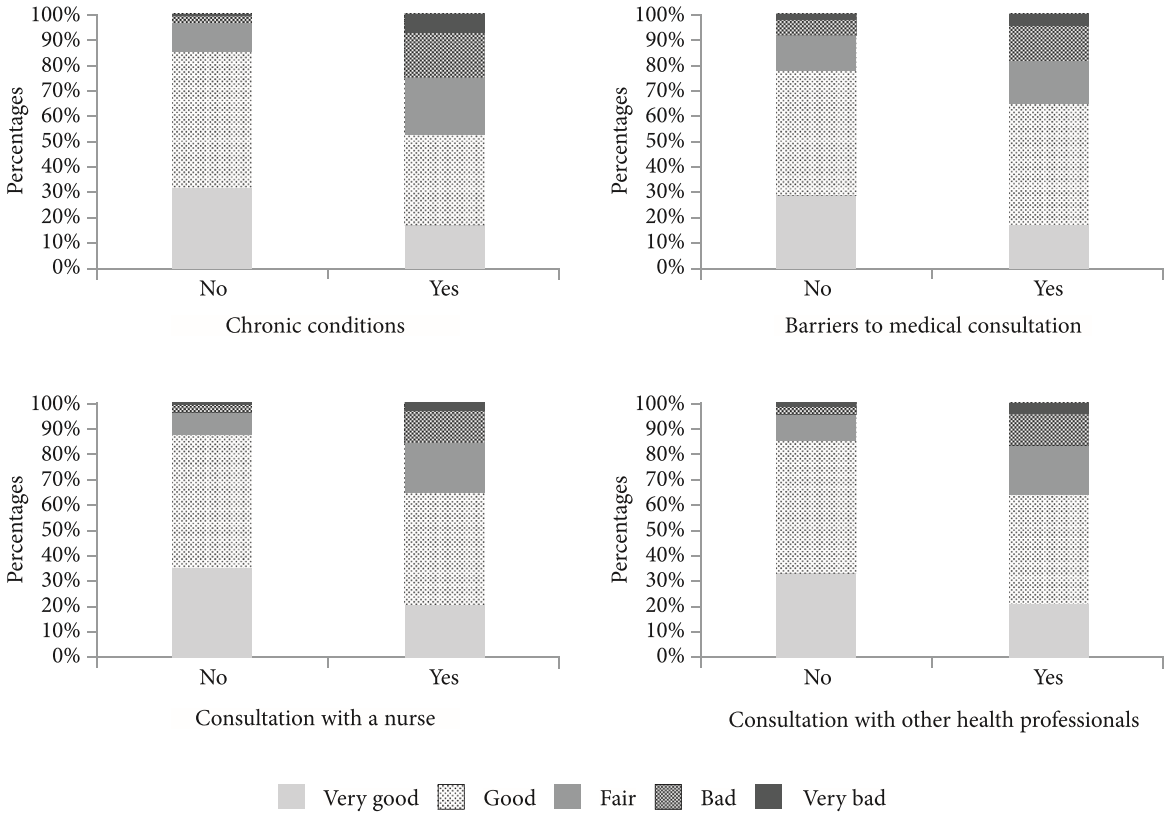
Source: SASAS 2014

Social determinants of SRH

Lifestyle factors and health-related behaviours such as dietary habits, smoking and alcohol-drinking, and physical activity were the only variables significantly associated with SRH in the bivariate association. Figure 13-6 shows likelihood of good SRH as influenced by social determinants selected in the final multivariate analysis.

SRH declined with age, and older age groups (especially 50 years and above) were significantly associated with increased likelihood of reporting bad SRH. Except for Indians/Asians, there was increased likelihood of reporting good SRH in other race groups compared to black Africans. The likelihood of reporting good SRH increased with educational qualifications. Employment significantly increased the likelihood of reporting good SRH. Respondents coming from families experiencing severe financial difficulties 'often' or 'always' were significantly less likely to report good SRH. The presence of chronic conditions was significantly associated with reduced likelihood of reporting good SRH. Respondents who reported consulting a nurse or a doctor in the last 12 months were less likely to report good SRH.

Figure 13-5: *Self-rated health in the general population, by presence of chronic conditions, experience of barriers to medical consultation, consultation with a nurse and with other health professionals*



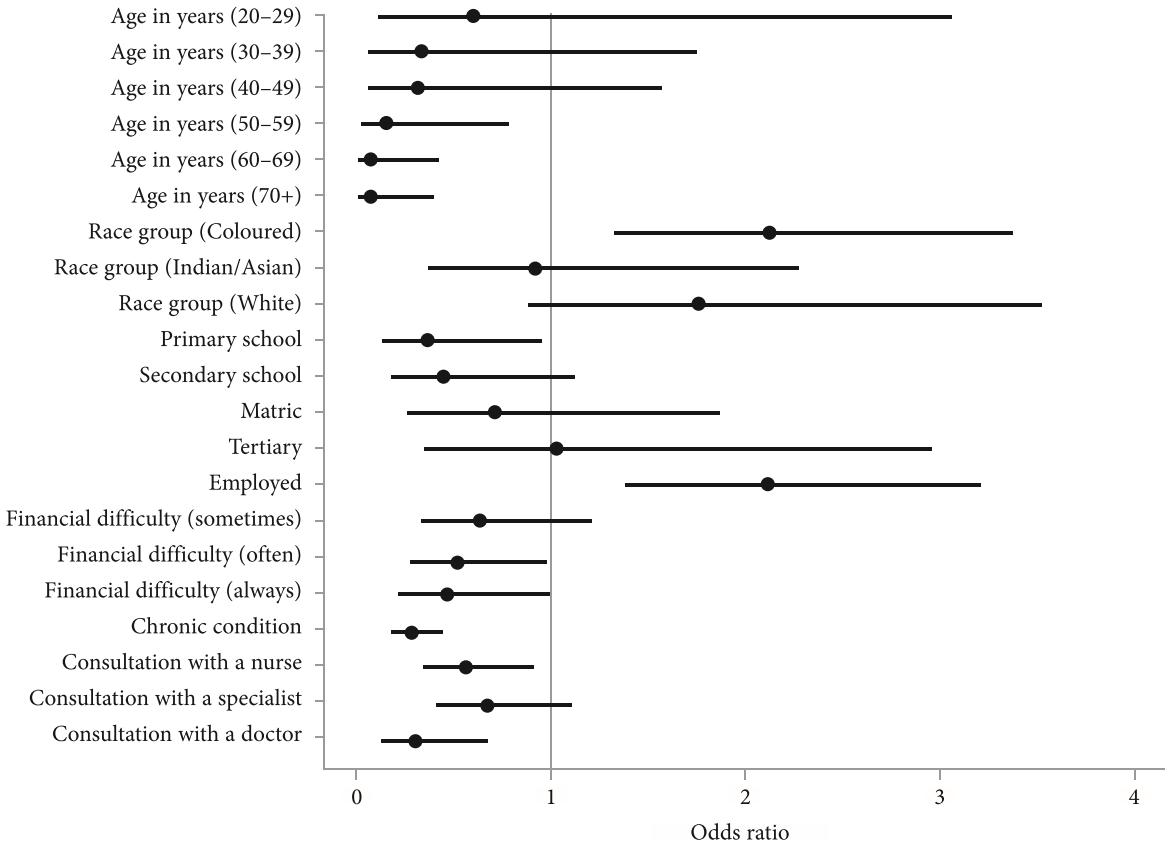
Source: SASAS 2014

Discussion

The findings show that there were differences in levels of reported SRH across ISSP member countries. As observed elsewhere, differences between countries in SRH levels can partly be attributable to underlying differences in true health (Bardage et al. 2005). These variations could also reflect different cultural options (Jurges 2007). Self-reported health is not only a function of actual health status, but also of individuals' or population groups' perceptions of health. Perceptions of health are, in turn, influenced by individual and societal-level factors that may differ within and between countries (Jylhä 2009). Therefore, caution must be exercised when making international comparisons. Although South Africa was rated the ninth-healthiest country, South Africans' SRH may not be comparable with other ISSP member countries, especially developed nations.

In South Africa, the determinants of good self-reported health status in the general population were age, race, level of education, employment status, financial situation, chronic disease, and healthcare utilisation. The findings showed that good SRH is positively associated with employment and education, and negatively with age, being a black African, coloured or Indian adult, financial difficulty, existence of chronic

Figure 13-6: *Likelihood (odds ratios and 95% confidence intervals) of good self-rated health, by selected social determinants based on the final multivariate analysis*



Source: SASAS 2014

disease and visits to healthcare personnel. Preliminary bivariate analysis also showed that positive health-related/lifestyle factors such as physical activity and good dietary habits had a positive effect on SRH, and that behaviour such as smoking and alcohol consumption had the opposite effect. Consistent with these findings, unhealthy diet, insufficient physical activity and harmful alcohol consumption have been associated with poor SRH (Chan et al. 2015; Pisinger et al. 2009).

Age, race, social and economic status have been viewed as fundamental social categories that form the context within which self-assessments of health are constructed and they appear in almost in every study investigating subjective health (Idler 1992). The current findings are consistent with studies showing that SRH worsens as age advances, especially given the fact that the majority of health problems are more prevalent among the elderly (McCullough & Laurenceau 2004; McFadden et al. 2008). The observed racial differences in SRH may be indicative of socioeconomic differences or social inequalities that are widespread in the South African society, resulting in inequalities in health and, therefore, poor SRH among black African, Coloured and Indian adults. Elsewhere, it has also been shown that not being white in the United States is strongly associated with poor health due to racial inequities (Siddiqi & Nguyen 2010).

High educational status and employment have been shown to characterise the social and economic status of the population, and have been associated with health inequalities among people of different socioeconomic status (Hosseinpoor et al. 2012; Molarius et al. 2007). Poor socioeconomic status has been shown to limit access to opportunities for educational achievement – an important indicator of future occupation or employment – which in turn affects SRH (Ahs & Westerling 2005; Kaleta et al. 2008). The presence of chronic illnesses has also been strongly associated with poor SRH in other studies (Molarius & Janson 2002). Likewise, consultation with healthcare personnel is indicative of poor health and, hence, the observed inverse relationships between visits to a nurse or doctor and good SRH.

Strengths and limitations

While this study is nationally representative, and can be generalised to the South African population, it is important to note that SRH may have different implications in various social and cultural settings. SRH may also be explained by other factors and intermediate variables, not included in this study, which modify the manner in which one's life is affected by health problems. These include factors such as infrastructure, housing conditions, access to healthcare services, availability of clean water and affordability of healthy foods. The study is also limited by the fact that the data are self-reported. There could be bias in responses to some questions due to the likelihood of social desirability and recall bias. Nevertheless, this study contributes to the small body of research that has investigated the social determinants of SRH in the South Africa.

Policy implications

The findings suggest that there is a relationship between SRH and traditional social determinants of SRH, and highlight important areas that policy should target to protect population's health. These include policies aimed at protecting the elderly, mitigating racial and socioeconomic inequalities, improving educational and employment opportunities, improving family and financial security, and alleviating the burden of chronic diseases and unhealthy lifestyles through public- and primary-healthcare services. However, more research is needed to strengthen policies that impact the social determinants of subjective measures such SRH in order improve the general health perception of the population.

Conclusion

This chapter provided insights into social factors that determine the reporting of SRH as a proxy for good health status, with prospective policy implications to address the health challenges in the general population of South Africa. The determinants of good SRH identified in this study explain social differences in health. Future research on this subject would benefit from qualitative inquiries

seeking to disentangle the dimensions of subjective health assessments among different social and cultural groups in the country.

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