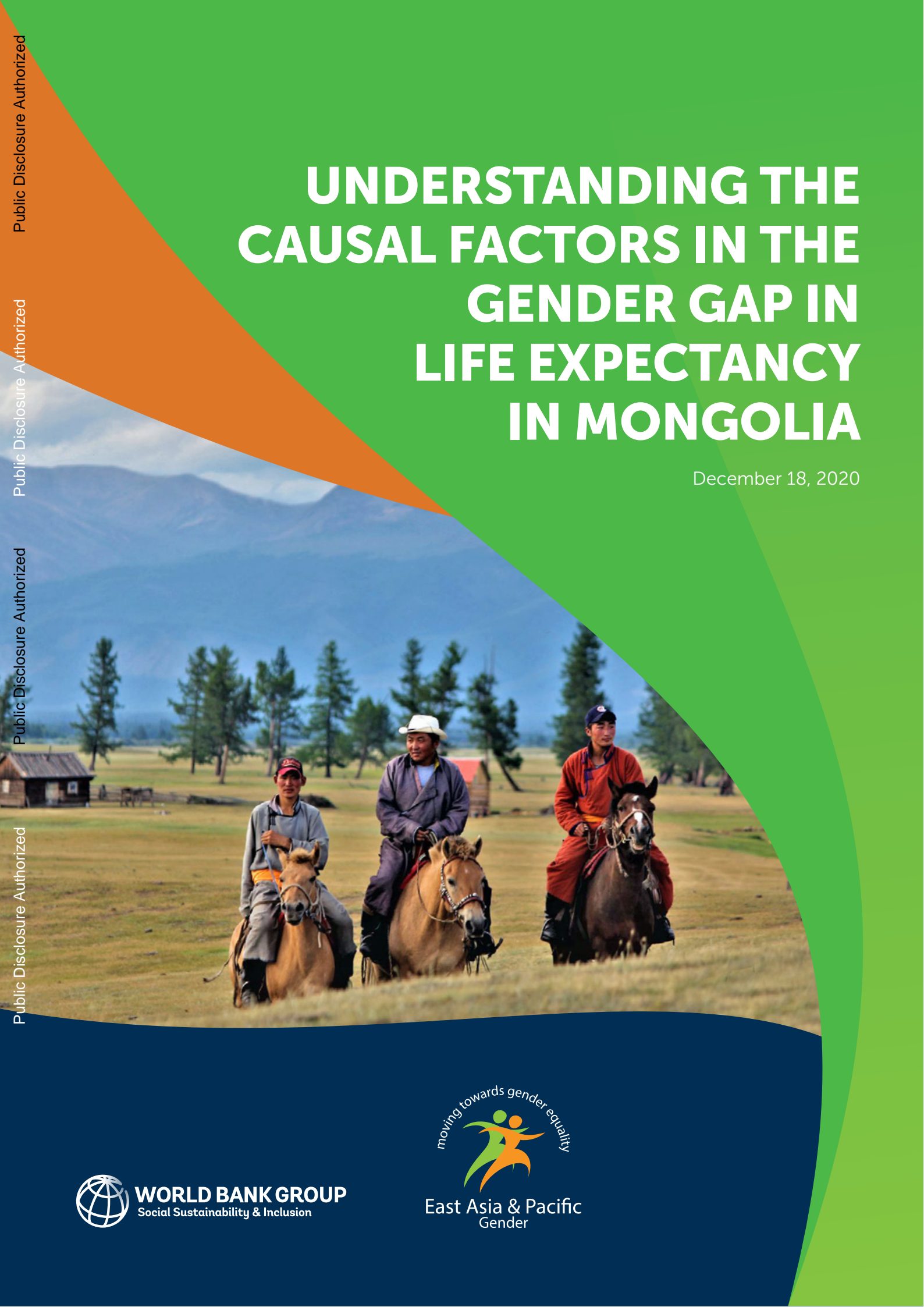


December 18, 2020



UNDERSTANDING THE CAUSAL FACTORS IN THE GENDER GAP IN LIFE EXPECTANCY IN MONGOLIA

The World Bank
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Abbreviations

CVD	Cardiovascular disease
GGL	Gender gap in life expectancy
LDF	Local development fund
NCD	Noncommunicable disease
NCGE	National Committee for Gender Equality
SLP	Sustainable Livelihoods Project
SLP3	Third Sustainable Livelihoods Project





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Executive Summary

The objective of the study was to understand the causal factors in the gender gap in life expectancy (GGLE) in Mongolia. The focus was on norms and behaviors of men, with the output expected to help inform World Bank operations. In Mongolia, the GGLE predicts that men will live an average of 9.6 fewer years than women (women 76.0; men 66.4) (NSO 2018). This is the 12th largest gap in the world and second largest for Southeast Asia and the Pacific (WHO 2020). A scoping study on the GGLE that the World Bank conducted in 2019 in conjunction with the National Committee for Gender Equality (NCGE) showed that death by suicide, homicide, unintentional injury, road accidents, and noncommunicable disease (NCD) was significantly higher for men than women. Understanding the determinants of this high male mortality was viewed as crucial for designing effective operational and policy interventions.

In particular, the study sought to inform the next phase of the Third Sustainable Livelihoods Project (SLP3). The SLP3 follows a community-driven development model to improve governance and community participation for the planning and delivery of priority investments in rural Mongolia. The Ministry of Finance implements it with funding from the World Bank and the Swiss Agency for Development and Cooperation. The principal beneficiaries of the SLP3 are rural citizens who benefit from improved local governance and the implementation of local development funds (LDFs). The project is implemented in all 330 soums (counties) in 21 *aimags* (provinces) throughout Mongolia, excluding Ulaanbaatar. Additional financing for SLP3 was approved in April 2020. Project components and costs were revised; the closing date of the parent loan extended from October 31, 2020 to October 31, 2022 to implement the activities under additional financing; and the results framework revised to reflect the scale up of activities under additional financing. A potential next phase of the SLP3 is being discussed with the Ministry of Finance.

The study explored three key questions: What factors are most important in the large difference in mortality between men and women, and which of these factors are behavioral? What are critical factors in men's decisions to engage in risky behaviors? How can behavior-change interventions with respect to male well-being be incorporated into the next phase of the SLP? Insights from the literature on gender norms and risk-taking behaviors and empirical evidence of behavior-change interventions were drawn on. The theory of hegemonic masculinity, which posits that having an aversion to vulnerability, not accepting help, aggressive behavior, and restrictive emotional control are stereotypical male behaviors, informed the study design (Connell 1995). Attempts to meet these standards of masculinity can lead to risk-taking behavior, which in turn reduces male life expectancy.

Standard social science methods were used, including 2,353 surveys, 37 individual interviews, and four focus groups with men. Survey questionnaires were developed based on pretested models on risk-taking decisions and risky behaviors (Lundberg and Shapira 2014). Interviews and focus groups were designed to gather further insight into risky behaviors, including identifying what has worked and what more could be done to address these behaviors. The study was conducted in four regions — Western, Khangai, Central, and Eastern — and nine districts of Ulaanbaatar. In terms of survey respondents, 77 percent were from Ulaanbaatar, 8.5 percent from Tuv *aimag*, 5.9 percent from Arkhangai *aimag*, 4.4 percent from Zavkhan *aimag*, 3.9 percent from Sukhbaatar *aimag*, and 0.3 percent from other *aimags*. Data collection was executed between June 1 and July 10, 2020.

Risky health behaviors — smoking, alcohol consumption, poor diet and lack of exercise, not seeking medical care, other risk-taking behaviors — were identified as the primary cause of the large difference in mortality between men and women. Key findings from the survey included:

- **Smoking.** Approximately 60 percent of men were smokers, of which 90 percent smoked daily. Fifty-five percent of men aged 18 to 25 smoked, which was the lowest rate of the age groups. The proportion of men who smoked rose steadily to 63.5 percent between the ages of 40 and 54.
- **Alcohol consumption.** Approximately 71 percent of men surveyed had consumed alcohol within the last year. Alcohol consumption in men aged 18 to 25 and those aged 70 and older was lower than in the other age groups, averaging 60 percent. Alcohol consumption was highest in men aged 26 to 39 (~76 percent). The number of men who consumed alcohol and the frequency with which they drank alcohol were 10 percent higher in urban than rural areas. Six percent of men surveyed were highly likely to drink too much alcohol in public, and 22 percent were likely to do so.
- **Diet and exercise.** Half of the men reported not exercising regularly and having a poor diet. Men in rural areas were more likely to be physically active than men in urban areas. Men aged 18 to 25 were the most likely to exercise, and those aged 40 to 54 were the least likely. Men aged 18 to 25 were the most likely to eat fruits and vegetables, with rates of consumption declining with age. Location and the supply of fruits and vegetables greatly influenced consumption of fruits and vegetables.
- **Seeking medical care.** Fifty-nine percent of men reported that they sought medical attention only if they were ill, and 20 percent reported that they had never seen a doctor. Six percent of men aged 18-69 reported that they saw a doctor when they were unwell; this increased with age, reaching 23 percent for men aged 70 and older.
- **Risk-taking behaviors.** Approximately 45 percent of men were highly unlikely to drive a car without a seat belt or ride a motorcycle without a helmet.

The survey results revealed a significant positive correlation between men's adherence to stereotypical masculine gender norms and their engagement in risky health behaviors. Men who had stronger masculine beliefs were more likely to smoke, drink, eat poorly, and avoid going to the doctor (e.g., 37 percent of men who consumed alcohol believed that it was important for men to be able to drink large quantities of alcohol). Men who embodied more masculine traits were more likely to engage in one or more risky health behaviors. The results of the survey, in which men agreed that men die earlier because of lifestyle and behavioral factors, corroborated these findings.

The interview results highlighted male attitudes that led to risky behaviors. Men's bad habits and risky behaviors harm their health and economic well-being, but men are reluctant to take decisive steps to change. Family instability is the biggest problem for men in their 30s and 40s; for young families, one partner moving away for work or education or working long hours can harm family relationships. Men were dissatisfied with the low value of their labor, which is a result of the lack of stable jobs and guaranteed income and income that does not cover their living expenses; overwork can lead to negative consequences, such as taking risky actions. Mongolian men generally prefer to be aware of their duties and responsibilities and fulfill them to the fullest; this is directly related to traditional notions, but the perception that they cannot fulfill this role comes from external (family or social) influences rather than personal beliefs.

The following actions were recommended to change men's lifestyles, particularly to mitigate the factors that harm their health and consequently decrease their life expectancy:

- i. **Shift the stereotype that a man must bear the heaviest burden within the family and society** toward the concept of gender equality
- ii. **Increase the value of men's labor and improve working conditions**
- iii. **Enhance male knowledge of and skills on health, hygiene, occupational safety, family, and reproduction** through information, education, and communication tailored to varying levels of knowledge, occupations, urban and rural locations, and age group
- iv. **Increase access to specialized male reproductive health service** in public and private hospitals
- v. **Enforce laws that prevent the sale of alcohol and tobacco to minors** and decrease the blood alcohol concentration that constitutes driving under the influence

These should be implemented in several intersectoral areas, such as education, health, and social security, rather than in one sector, by developing policies and programs for men and improving the legal environment for taking action. Sharing the report with the NCGE, which has a mandate to develop, guide, and monitor implementation of policies, programs, and special measures on gender equality, will be a stepping-stone for dissemination to a wider group of relevant government entities. Organizing a subsequent dissemination event will be critical to share results and seek coordinated, cross-sectoral interventions, which is important for addressing the GGLE.

A combination of techniques that incorporate brief intervention principles in an inclusive male environment may be the best way to reduce the mortality burden of male-specific NCDs and bodily injury in Mongolia. Brief intervention techniques have shown great merit and been widely used to create immediate behavioral change in countries with at-risk populations. Meanwhile, community initiatives (e.g., Men's Sheds program in Australia, New Zealand, and Canada) have provided health benefits to their members through social inclusion, by providing access to health information and services, and by creating a space for members to champion cultural changes. The SLP3 should seek to cultivate a similar space for men in Mongolia. Bagh (village) meetings, which already embody a sense of community spirit, may be a viable space to focus brief interventions and community-led interventions.

The study makes three critical recommendations with regard to the SLP3:

- i. **Conduct a study to establish the link between brief and community-led interventions and SLP3 activities during the project's upcoming mid-term study** as a first step in identifying current levels of participation of men in the LDF process, challenges to and opportunities for their participation, and suitable interventions (e.g., dedicated services for men's health, targeted information sessions during bagh and soum meetings).
- ii. **Pilot model focus groups at bagh meetings to identify suggestions for LDF financing to address risky health behaviors of men.** The SLP3 could have some soums organize model focus group discussions at bagh meetings, where male health- and lifestyle-related topics are suggested as priorities to be addressed. Options for investment projects for potential LDF financing may emerge from such discussions.
- iii. **Use study results to identify policy recommendations to influence the list of eligible expenditures under the LDF.** Expanding and sustaining the above interventions and pilots may be challenging under the current legal framework for the LDF. The regulatory aspects of the LDF will need to be strengthened to finance subprojects targeted at resolving social problems, such as men's health and lifestyle.





Part 1. Introduction

Gender gap in life expectancy in Mongolia

Rural life and livelihoods in Mongolia are often more challenging than in urban areas, with greater poverty and less access to wage employment. With a population density of approximately 1.9 inhabitants per square kilometer, Mongolia is the world's least densely populated country. The economy, which has traditionally been based on seminomadic herding of livestock, has gradually shifted toward a mining-driven economy. Economic opportunities are increasingly urban based, with Ulaanbaatar, the capital city, expanding rapidly because of rural-urban migration, although the livestock sector remains the main source of employment. Because most rural inhabitants are seminomadic herders, often living far from settlements, it is difficult to provide services to them (World Bank 2014a). Rural poverty has regularly been higher than in urban areas, although the gap has narrowed (World Bank 2018).

The economic slowdown decreased labor force participation and greatly increased unemployment. Since 2014, Mongolia has faced severe economic challenges from major shocks, compounded by expansionary policy. Labor force participation declined from 63.7 percent of the adult population in the third quarter of 2014 to 61.6 percent in the third quarter of 2016, and unemployment rose from 6.4 percent of the labor force in the third quarter of 2014 to 11.6 percent in the first quarter of 2016 before decreasing to 9.4 percent in the third quarter of 2016 (World Bank 2019a). Indonesia, the Philippines, and Mongolia have the greatest youth inactivity in the East Asia and Pacific Region, with 21 percent of young people aged 15 and 29 not working, in school, or in training (World Bank 2019a).

Traditionally seen as “the backbone of the family,” most Mongolian men face a highly competitive labor market, especially those in urban areas, with few opportunities to earn an adequate wage (NSCGE 2019). Poor labor conditions, combined with disconnection from community and ancestral roles, has meant that men have been prevented from completing their primary social responsibility: providing for their family. The result of this disconnect is a major breakdown in traditional gender roles that previously gave Mongolian men responsibility and purpose. The fact that there are not enough jobs to employ all the residents of Ulaanbaatar has led to many idle men without prospects or hope. In the ever-expanding ger districts that encircle the city, public drinking is commonplace, and crime rates are high. Men without employment are unable to afford healthy food for themselves or their families, and they rarely access medical services. The weakness of the Mongolian labor market is having an indirect effect on the health of Mongolian men and the families they support.

Short life expectancy, particularly for men, poses a serious risk to population well-being (World Bank 2018). Life expectancy is the average number of years a person can expect to live given current age-specific mortality. In Mongolia, the gender gap in life expectancy (GGL) predicts that men will live an average of 9.6 fewer years than women (women 76.0;

men 66.4) (NSO 2018). This is the 12th largest gap in the world and second largest for Southeast Asia and the Pacific (WHO 2020). Despite the recent accumulation of national wealth in Mongolia, male life expectancy increased by only 5.4 years between 1992 and 2018; female life expectancy increased by 10.9 years over the same period (ADB 2017).

Although there are policies and programs addressing life expectancy, they are not effectively implemented. Life expectancy objectives are delineated in four policy documents — Sustainable Development Vision of Mongolia for 2030, Population Development Policy in 2016, State Health Policy, State Policy on Public Health — and nine national programs. Insufficient funding, fragmented financing, and lack of intersectoral coordination has hindered implementation of these policies and programs. Between 2010 and 2018, government health spending has remained consistently low (6 percent to 8 percent of total government spending), and much of that has been on recurrent expenditures (WBG 2018).

Narrowing the GGLE is of relevance to the agenda of the National Committee for Gender Equality (NCGE). The Sustainable Development Vision of Mongolia for 2030 recognizes that achieving gender equality is critical for ending poverty and attaining prosperity. Headed by the Prime Minister, the NCGE has a mandate to develop, guide, and monitor implementation of policies, programs, and special measures on gender equality; make assessments and issue recommendations on implementation of relevant national laws, programs, and conclusions of international treaty bodies; increase the national capacity for gender equality; and establish a national gender database and information system. The NCGE is interested in working with the World Bank given the Bank's prior experience in addressing men's issues in Mongolia through a pilot initiative, the MenCare Program in Ulaanbaatar, which the government later expanded to the national level in partnership with the United Nations Population Fund.

In 2019, the World Bank conducted a scoping study on the GGLE in conjunction with the NCGE (World Bank 2019c). Death by suicide, homicide, unintentional injury, road accident, and noncommunicable disease (NCD) was significantly higher for men than women. In 2018, male mortality was 5.8 times as high as female mortality from suicide, 4.1 times as high from homicide, 3.8 times as high from unintentional injuries, 2.8 times as high from road accidents, and 1.5 times as high from NCDs.¹ Fifty-four percent of those who died by suicide were from rural areas. Cause of death in men varied across age groups. Mortality in working-age men was 3.3 times as high as for working-age women.² Hospital records and anecdotal evidence indicated help-seeking behaviors, lifestyle, and aspects of health service delivery as contributory factors in the high male mortality. There were no national-level data on cultural perceptions, dietary patterns, physical exercise, consumption of alcohol, or smoking habits.

Role of gender norms and behaviors in life expectancy outcomes of men

Although there is no consensus on the exact causal factors in the high mortality of men, gender norms appear to play a critical role. Several studies have presented different hypotheses to explain the high mortality of men, exploring factors such as education, socioeconomic conditions, cultural and sociopolitical transitions, and psychological and social norms (see Lundberg and Shapira 2014). Research indicates that gender-based social norms play an important role in the significant gender differences in mortality (Bobovra et al. 2010; Hawkes and Buse 2013; Cockerham, Hinote, and Abbot 2006).

Gender norms and life expectancy outcomes have been talked about in discussions about risky behaviors. For example, it is normal for men in many cultures to drink alcohol excessively (Peralta 2007) and avoid certain healthy foods (Sobol 2005) and health care (Noone and Stephens 2008). A continuance of the tradition of Genghis Khan, the 13th-century warrior who founded the Mongol Empire, is seen in rural families, who brew yoghurt spirits and fermented mare's milk — a drink associated with celebration, strength, and virility that is predominantly consumed by men (World Bank 2013; ODI 2015; Fleming and Agnew-Brune 2015). Men are less likely to seek help for mental health conditions, a trait often associated with the disproportionately higher suicide rates in men than in women (Sagar-Ouriaghli et al. 2019). Men often feel pressured to behave as “real men,” taking risks, tolerating pain, and being independent primary providers to assert their manhood (Pollack 1995; WHO 2007).

Understanding the determinants of risky behaviors is crucial for designing effective operational and policy interventions. Alcohol consumption and poor diet provide immediate pleasure and long-term uncertain costs. The trade-off between the present benefit and future costs determines the propensity to take risks. Whether and how individuals consider this trade-off, as well as the associated perceived benefits and costs, depend on multiple factors. There are individual factors (e.g., socioeconomic background, including education and wealth; subjective perceptions) and characteristics of the environment in which these decisions are being made (e.g., prices, information, social norms). For example, there is evidence that better-educated individuals are more likely to reduce risk-taking when exposed to information about the adverse consequences of certain behaviors.³

Information, education, and communication interventions aimed at raising awareness of the dangers of alcohol abuse, smoking, and unhealthy diet and presenting alternatives to cope with challenging life circumstances have the potential to change gender-based norms and perceptions that increase risk-taking behaviors. Exposure to counter-stereotypical images, and delinking negative associations with these images, can change the status of expected behavior to the point that the gender norm varies or becomes irrelevant (Ridgeway and Corell 2004). A set of programs and policies targeting perceptions and social behaviors in Russia have had significant effects on male life expectancy (World Bank 2014b). Mass media campaigns challenging masculinity and prevailing drinking norms in Sri Lanka (Men Engage Sri Lanka n.d.) and South Africa,⁴ negative consequences of smoking in Australia (Wakefield et al. 2008), and diet and lifestyle changes to reduce the burden of NCDs in Finland (Pekka, Pirjo, and Ulla 2001) have improved health outcomes. Addressing gender norms that define masculinity is an important element of HIV prevention strategies. Participation in group education activities that encourage reflecting on what it means to be a man can change the behavior and attitudes of young men, and reinforcing these messages at the community level can have additional positive effects (Instituto Promundo 2006). “Edutainment” through television or radio shows can change social attitudes and behaviors (Jensen and Oste 2009), although there is concern that exposure to such programs might increase social acceptance of negative behaviors and habit formation through imitation of ideal male prototypes (Engels et al. 2009). Knowledge of the intersection of policies and programs, gender norms, and male behavior is beginning to accumulate, but more research is needed (World Bank 2015).

Community-driven development can be used as a platform for last-mile service delivery and behavior change. In Laos, the World Bank–financed Lao Poverty Reduction Fund provided capacity-building assistance to village self-help groups, with a focus on women, to develop and implement nutrition-sensitive livelihoods such as production of small livestock and horticulture, for own consumption and sales (World Bank 2016; 2019c). The project also supported regular awareness raising on sanitation using behavior-change communication materials, sharing basic knowledge on rural sanitation, including basic latrine construction techniques, and monitoring villagers daily on sanitation. Effective behavior-change interventions have been used in the water,

nutrition, and transport sectors, such as providing resources for communities to engage in new activities and sustain behaviors (e.g., daily food and micronutrient supplements); adopting enabling legislation (e.g., fines for not wearing helmets or seatbelts); making the target behavior more prominent (e.g., painting brightly colored footsteps from latrines to handwashing stations in primary schools); and developing information, education, and communication campaigns (e.g., social marketing through radio, posters, leaflets, songs and games, or interpersonal communication by training people to deliver hygiene and sanitation messages). In the World Bank–financed Rural Water Supply and Sanitation Project in Nepal, using a participatory approach and delivering messages targeting social norms through authority figures in the community helped improve hygiene behaviors (IEG 2016).

Sustainable Livelihoods Project

The Third Sustainable Livelihoods Project (SLP3) follows a community-driven development model to improve governance and community participation for the planning and delivery of priority investments in rural Mongolia. The SLP3 is the third phase of the 12-year Sustainable Livelihoods Project (SLP) launched in 2002. The Ministry of Finance implements it with funding from the World Bank and the Swiss Agency for Development and Cooperation. The principal beneficiaries are rural citizens, who benefit from better local governance and implementation of local development funds (LDFs).⁵ The project is implemented in all 330 soums (counties) in 21 *aimags* (provinces) throughout Mongolia, excluding Ulaanbaatar.⁶ Additional financing for SLP3 was approved in April 2020. Project components and costs were revised; the closing date of the parent loan extended from October 31, 2020 to October 31, 2022 to implement the activities under additional financing; and the results framework revised to reflect the scale up of activities under additional financing. A possible next phase to the SLP3 is being discussed with the Ministry of Finance.

Although gender-disaggregated data for participation rates and project beneficiaries is included in the SLP3, more needs to be done if the follow-on operation is to qualify for the Gender Tag (the World Bank monitoring system). Gender equality is central to the World Bank Group goals of ending extreme poverty and sustainably boosting shared prosperity. The World Bank Group Gender Strategy outlines the multifaceted interventions necessary to change current gender inequalities in human endowments, economic opportunities, asset ownership and control, and voice and agency (WBG n.d.). The Gender Tag monitors and rates projects on their depth of gender integration by assessing whether the project design integrates gender analysis and consultation on gender or gender-related concerns, specific actions to address the distinct needs of women and girls or men and boys or to decrease gender gaps, and mechanisms to facilitate the monitoring and evaluation of gender effects through the project's results framework.

There is an opportunity for SLP3 additional financing, or a potential follow-on operation, to promote behavior changes with a view to enhancing male well-being. Investments supported under LDFs have been primarily in education and health. In 2011, investments were made in hospitals, vehicles, drugstores, and household indoor clinics, among others (World Bank 2014a). Citizens are targeted primarily through bagh (village) meetings, where communities voice their views on local development, and soum budget priorities are discussed. These local-level meetings offer an avenue to raise awareness and communicate to men and women about health-risk behaviors such as smoking, alcohol abuse, and mental health; coordinate with community leaders and soum and bagh officials to disseminate these messages; highlight target behaviors using visual communication methods; and advocate for prioritization of service delivery needs.

Study objective

The objective of this study is to understand the causal factors of the GGLE in Mongolia. The focus is on norms and behaviors of men, and the output will inform World Bank operations. Drawing on insights from the literature on gender norms, risk-taking behaviors, and empirical evidence of behavior-change interventions, this study explores three key questions.

- (i) **What factors are most important in the large difference in mortality between men and women, and which of these factors are behavioral?** Differences in mortality are due to various factors, one of which is behaviors. This question will identify the causal factors in the gender differences in mortality and identify behavioral factors.
- (ii) **What are critical factors in male decisions to engage and persist in risky behaviors?** Following from Question 1, exploration of this question will identify and explain the factors behind male decisions to engage and persist in risky behaviors. Focus will be on identity (identifying norms and how they result in beliefs about identity) and gender roles (understanding gender roles and their relationship with propensity to engage in risky behaviors).
- (iii) **How can behavior-change interventions with respect to male well-being be incorporated into the next phase of the SLP?** The focus is on analyzing the results with reference to the literature on risk-taking behaviors and empirical evidence on behavior-change interventions and thereby identifying options for the SLP3 task team to take up with the implementing agency.

Structure of report

The remainder of the report describes the literature, methods, results, and recommendations.

Part 2 reviews the literature on risky male behaviors to identify health problems that contribute to early mortality in Mongolian men, male-specific risk-taking behaviors that cause such deaths, and international examples of behavior-change interventions that have reduced these risky health behaviors in other countries. Part 3 describes the study methods. Part 4 presents the study results, with a focus on demographic information about respondents, disaggregated according to age, geographic location, and education; extent to which participants engage in risky health behaviors (smoking, drinking, unhealthy lifestyle, lack of help-seeking); risk-taking behaviors of men with respect to their health and safety; and male gender norms. The report concludes with recommendations in Part 5.



Part 2: Desk Review

Around the world, men are consistently predicted to live shorter lives than women (Baker & Shand 2017). Men are at greater risk of developing and dying from most major diseases (Rochelle 2019). A meta-analysis in the United States concluded that men engage in more than 30 behaviors that put them at higher risk of death than women: “men’s behavior is a major — if not the primary — determinant of their excess mortality and premature deaths” (Courtenay 2000a). To find a solution to the GGLE, it is imperative to identify the behaviors that decrease male life expectancy in Mongolia.

Courtenay (2000b) proposes that men engage in risky health behaviors as a way of practicing their masculinity. Masculinity is a set of stereotypic beliefs and behaviors that men adopt to conform to their dominant culture. Courtenay suggests that a shared masculinity encourages risk-taking behavior and reinforces it as a gender norm for men. Informed by Connell’s (1995) theory of hegemonic masculinity, having an aversion to vulnerability, not accepting help, aggressive behavior, and restrictive emotional control are all stereotypical male behaviors. Attempts to meet these standards of masculinity can lead to risk-taking behavior that results in premature male death. To find a solution to the GGLE, we must understand whether this hypothesis holds true in Mongolia. We seek to understand whether male gender norms in Mongolia are driving men to engage in risky health behaviors.

In the 21st century, there has been much research examining male gender norms and masculinity as risk factors for poor health in men (Courtenay 2011). It is generally accepted that men who conform to the abovementioned masculine traits will engage in risky health behaviors (Courtenay 2000b; Liu and Iwamoto 2007). Recurring behaviors that are masculine include consuming large amounts of alcohol (Peralta 2007) and smoking cigarettes (Kodriati, Pursell, and Hayati 2018). Conversely, potentially protective health behaviors, such as seeking medical help and regularly exercising are regarded as futile or “girl stuff” (Courtenay 2000b; Noone and Stephens 2008).

Mongolia has undergone a significant cultural change. As has happened in most of the world, the social and economic shifts of the 20th century significantly changed Mongolian men’s roles. The physical and mental effects of rapid modernization and cultural dislocation has been placed immense pressure on populations (Singh, Earnest, and Lample 2015; Labarthe et al. 1973). Increases in NCDs, alcoholism, and suicide may be symptoms of a similar problem in Mongolia. To meet these new challenges, the country must harness the wealth of international men’s health research and find inspired solutions that fit its unique circumstances.

The scope of this rapid desk review is twofold. First, it will identify health problems that contribute to early death in Mongolian men. A brief data analysis will identify the leading contributors to the Mongolian GGLE and then link these causes to male-specific risk-taking behaviors. The discussion will also address how economic and social circumstances may be related to men’s risk-taking behaviors. Second, this review will draw on international examples of behavior-change interventions that have addressed men’s health directly. The interventions will be evaluated with respect to how well they address male gender norms and their applicability to the Mongolian context.

Health challenges in Mongolia

The leading causes of death in Mongolia are NCDs and injury (World Bank 2019). In 2018, NCDs accounted for 85 percent of all deaths in Mongolia. The two most common NCDs for men and women are cardiovascular disease (CVD) and cancer. Men are 1.5 times as likely as women to die from a NCD. Gender differences are even more disproportionate in terms of injury. Men were 2.8 times as likely as women to die from road accidents, 3.8 times as likely from unintentional injury, 4.1 times as likely from homicide, and 5.8 times as likely from suicide (World Bank 2019).

Risk-taking behavior varies depending on age, and the risks to each group must be considered when seeking a solution to the GGLE. Men aged 50 and older were more at risk from NCDs than younger men. Suicide was the leading cause of death for men aged 15 to 29 and alcohol poisoning for those aged 30 to 45 (World Bank 2019). The differences in cause of death for different age groups demonstrate how men are not a homogenous group.

The data show that NCDs cause the greatest loss of life and are the largest contributor to the Mongolian GGLE, but Mongolian men die of injuries at a far higher rate than women. This is particularly pronounced in the younger age brackets, with suicide and alcohol poisoning overrepresented in young male deaths. Both these causes of death have strong ties to male gender norms regarding risk-taking behaviors. To obtain a balanced view of the GGLE, NCDs and injury will be considered as the primary focus of this desk review. The following section will identify three key risk-taking behaviors that are established causes of NCDs and injury.

Risk-taking behaviors of Mongolian men

For the purposes of this review, risk-taking behavior is considered any choices a person makes that present a risk to their health. In their most immediate form, this can include activities that place a person in harm's way, such as drunk driving or working on a construction site without protective equipment. In the long term, this may also include smoking cigarettes and ignoring a worsening medical condition. All of these choices affect an individual's health. Three types of risk-taking behavior that contribute significantly to the Mongolian GGLE are explored: alcohol consumption, tobacco smoking, and help-seeking behavior. Two behavior-change interventions that have reduced male mortality will also be discussed.

Alcohol use

Alcohol use is closely linked to development of serious NCDs. Liver cirrhosis can result from overconsumption of alcohol. It can cause death alone but also significantly increases risk of liver cancer (Rehm and Shield 2013). In addition, alcohol consumption is involved in a large proportion of suicides, homicides, road accidents, and injuries in Mongolia (World Bank 2019). For example, a Mongolian study of 2,055 suicides found that, in 58.5 percent, the person had been under the influence of alcohol in the preceding 72 hours (GPOM 2017). Mongolians frequently refer to alcohol dependency as a "male problem" (ADB 2017; Armstrong and Tsogtbaatar 2010), yet there is little evidence of why men are so disproportionately affected.

Male gender norms influence alcohol consumption (Wells, et al. 2014). For young men, ability to tolerate large quantities of alcohol and sharing drinking stories contribute to a shared sense of masculine identity (Peralta 2007). Given that 50 percent of Mongolian men self-report as regular drinkers, compared with 30 percent of women (Demaio et al. 2013), masculine gender norms may be driving alcohol consumption.

Alcohol-related road accidents affect Mongolian men far more than women. Premature death due to road accidents is the third largest cause of death for Mongolia. Roughly three times as many men die in road accidents as women. In the United States, the 21-year-old age restriction for the purchase of alcohol has led to a 16 percent median decline in road accidents (CDC 2020). Although Mongolia requires that people be 21 years of age to purchase alcohol and that have a conservative blood alcohol concentration of less than 0.04, an estimated 20 percent of fatal road accidents involve alcohol. The World Health Organization rates Mongolia's enforcement of its drunk driving laws as a 3 out of 10 (WHO 2013). Better implementation of random breath testing and the legal age to purchase alcohol is a clear way that Mongolia can save young men's lives and reduce the GGLE.

Brief interventions are a cost-effective way to reduce risky alcohol consumption. Usually, brief intervention sessions employ behavior-change techniques such as motivational interviewing or cognitive behavioral therapy. Health professionals use several sessions to attempt to shift an individual's alcohol use. The sessions equip the individual to take control of their alcohol consumption. In a Taiwanese randomized controlled trial targeting male inpatients in a Taipei hospital (Liu et al. 2011) clinicians recruited 616 unhealthy alcohol users and assigned them to receive two sessions of motivational interviewing and an educational brochure. The brief intervention reduced alcohol consumed significantly more than treatment as usual and in a control group. The intervention group was significantly more likely to have sought help for alcohol use at follow-up. Studies such as these demonstrate that very short (in this case, 30 minute) interventions can significantly reduce alcohol consumption, although the widespread popularity of brief interventions has led to many critiquing the method's methodology. Often critics cite that the effects are short term and that the change in consumption is unsustainable after respondents leave the clinical setting (Giusto and Puffer 2018).

A more robust methodology has emerged that combines brief intervention with family counseling, aiming to reduce social problems endemic in alcohol use such as gender-based violence and poor parenting. Nattala, Leung, and Murthy (2010) used this methodology with alcohol-dependent men who underwent a brief intervention focused on relapse prevention supported by family members. Respondents were more than twice as likely to maintain abstinence over a 6-month period than those who completed the brief intervention without family involvement. Giusto and Puffer (2018) reviewed brief interventions using this mixed methodology in low- and middle-income countries and found that these studies had promising results: "Couples/family treatments typically outperform individual approaches for addressing alcohol use, couple conflict, and mental health."

The wide applicability of the brief intervention approach also means that, as a model for a behavioral intervention, it has potential to reduce other risky health behaviors. There is a broad, urgent need for programs that target men's alcohol consumption and their attitudes and behaviors toward their families. A qualitative study of gender-based violence in which Mongolian women identified alcoholism as a primary cause of family violence (ADB 2017) concluded that education and open, respectful communication within families are protective. Introducing community-based brief intervention programs with strategies that empower families to work cohesively will result in men being more supported and motivated to overcome alcohol dependency.

Smoking

Cancer accounts for 31 percent of all deaths in Mongolia, making it the second largest cause of death after CVD. For most types of cancer, men have higher mortality than women. Men accounting for 78 percent of all deaths from bronchial and lung cancer (World Bank 2019) may help explain this disparity. In Mongolia, gender differences in smoking are stark. A study by Tuvdendorj et al. (2020) concluded that 58.1 percent of male deaths from lung, throat, and related cancers were attributable to smoking, compared with 8.9 percent of female deaths. Mongolia's current legal age to purchase tobacco is 21. The authors also found that nearly 50 percent of men and 5 percent of women aged 15 and older smoke. This disparity suggests that, similar to alcohol consumption, there is a significant problem enforcing the laws that specify the age for the sale of tobacco. Current trends in data show that smoking is increasing in men and decreasing in women. If this lack of enforcement continues, it will exacerbate the GGLE in Mongolia.

Kodriati, Pursell, and Hayati's (2018) scoping review of smoking behavior and masculinity displays a clear pattern of men smoking as a means of adhering to gender norms. Men typically see smoking as a way of managing work and life stressors. In a study of young Indonesian men, smoking was regarded as masculine and a rite of passage to adulthood (Ng, Weinehall, and Ohman 2007). Because there are strong cultural taboos against women smoking, these men practiced their masculinity by smoking to avoid being seen as feminine and weak — a dangerous practice considering that young men also regarded themselves as impervious to the negative health effects of smoking. Demaio et al. (2014) suggested that a parallel may exist in Mongolian men, who smoke as a way of practicing masculinity and to define themselves in contrast to femininity.

In addressing smoking, brief intervention is once again a useful tool. CHEST Australia is a brief intervention designed to encourage early detection of lung cancer in high-risk populations. The capacity of the program to link vulnerable people with specialists who can detect lung cancer early has been assessed. In a study by Emery et al. (2019), a single consultation to discuss a self-help manual increased participation in lung cancer screening programs. Health professionals encouraged self-monitoring of symptoms and help-seeking in response to symptoms, resulting in 40 percent more consultations for those who received the brief intervention than in the control group. This large behavioral change indicates the efficacy of a brief intervention in reducing smoking and that it is a useful tool to bring men into medical clinics. Forming stronger relationships with practitioners will help increase medical knowledge in addition to increasing screening for NCDs.

Help-seeking behaviors

The disparity in incidence of disease and mortality between men and women indicates a trend often attributed to male gender norms; men may wait until they are debilitated from a disease before seeking medical help. Across Mongolia, women are 2.3 times as likely as men to seek outpatient treatment (Begzsuren and Aldar 2014). CVD and cancer have been the two leading causes of death in Mongolia since 1995. In 2018, Mongolian women were 1.7 times as likely to be diagnosed with cancer as men, but men were 1.2 times as likely to die from cancer. There is another counterintuitive trend with CVD-related mortality. Women were 1.6 times as likely to be diagnosed with CVD as men, but male mortality was 1.4 times that of women (World Bank 2019). Lack of help-seeking behavior is a global threat to men's susceptibility to NCDs, mental illness, and injuries (Baker and Shand 2017).

Research has indicated that men who adhere to gender norms are less likely to seek help for medical and mental illness (Sieldler et al. 2016). Chan and Hayashi (2010) demonstrated that Japanese men who adhered to certain masculine norms, specifically pursuing power and control and restricting emotions, were less likely to seek medical help and saw seeking help as being futile. In a survey of Ulaanbaatar residents, men were statistically less likely to have sought medical help in the last year than women (Gan-Yadam et al. 2013). The outcome is that men are dying from causes that could be prevented if proper professional assessment is received.

Why male gender norms push men to avoid seeking help for medical reasons is a complex question. On an individual level, men may fear the outcomes of seeing a health professional; systemically, health education and literacy may be the problem; and in the case of rural men, geography may be the greatest barrier, but overall, the culture of men discourages help-seeking (Noone and Stephens 2008). Men downplay their symptoms to avoid showing vulnerability and to adhere to the idea of a “stoic man” (Courtenay 2000b). This behavior is a result of the complex internal and external pressures of male gender norms that encourage men to avoid seeking medical help even though they may be seriously ill. An effective solution must implement cultural change on a community level, such that men feel released from the expectations of these damaging gender norms.



Health interventions that recognize gendered beliefs will be most effective in changing cultural elements. An initiative started in Australia that has expanded to New Zealand, the United Kingdom, and Canada is the Men's Shed program. The sheds are a community-based workshop setting that provides spaces for men to socialize and build practical skills. The sheds provide cultural and health benefits through informal and peer-led learning (Golding, Foley, and Brown 2007). The program has been found to improve psychological and community well-being through feelings of fellowship and belonging (Taylor et al. 2018).

The unique place that Men's Sheds occupies in the minds of its members may put it in a good position to change risky health behaviors. A survey of Australian Men's Shed members found that men's social ties within their sheds were an indicator of their willingness to access health services (Ford, Scholz, and Lu 2015). An all-male community offers an opportunity to change unhealthy male gender norms. If these all-male communities show collective support for help-seeking behavior, it is possible that gender norms can be shifted for their members. A survey by Cordier and Wilson (2013) found that 43 percent of Men's Sheds had received a visit from a health worker in the previous 12 months. This practice of conducting health checks within the sheds was more common in rural areas, where access to health services is limited. This increase in desired behavior combined with the well-being benefits led the authors to conclude that Men's Sheds play a dual role in improving members' social and health dimensions.

Conclusion

A combination of techniques incorporating brief intervention principles into an inclusive male environment may be the best way to reduce the male-specific mortality burden of NCDs and injury in Mongolia. Brief intervention techniques show great promise and are widely used to create immediate behavioral change in at-risk populations, although they are widely criticized for the short-term nature of their effects and narrow scope. By contrast, community initiatives such as Men's Sheds offer health benefits to their members through social inclusion, access to health information and services, and creation of a space for members to champion cultural changes. These spaces are crucial for sharing information and allowing men to decide collectively upon the norms that they wish to set for their group. Unfortunately, Men's Sheds do not create immediate behavioral change but instead offer a unique environment through which male culture can be shaped. Although their effect on male behavior is likely to be slow and indirect, the changes they bring will be lasting and widespread.

The challenges will be to identify a Mongolian setting in which an inclusive male environment can be formed. *Bagh* meetings, which already embody a sense of community spirit, may be a viable space to focus on. Understanding of the male gender norms valued in Mongolian society will be required to establish an informal, attractive setting for the brief intervention. Any research in this area will need to explore what constitutes masculinity in Mongolia, which will allow health professionals to empower men to take control of their risk-taking behavior. If they can be made to do so, they will become responsible for reducing the GGLE in Mongolia.





Part 3: Methodology

The study methodology focused on attitudes and perceptions related to risk-taking and healthy-living behaviors, and masculine gender norms. Masculine gender norms are societal and cultural beliefs about masculinity and male gender (Rossi 1993). Specifically, they are attitudes and behaviors that a man's environment normalizes. The study examined these gender norms and their relationship to men's propensity to engage in risk-taking behaviors in the Mongolian context. It is believed that stronger conformity to masculine gender norms reinforces beliefs that are conducive to poor health outcomes.

Standard social science methods were used, including survey questionnaires, focus groups, and key informant interviews. Study participants were randomly selected. The conditions of the research were explained to participants, including the confidential and voluntary nature of the interviews and that there was no direct financial reward for participation. Only those who volunteered to participate were included in the study. Surveys and interviews took place in participants' homes and workplaces, on streets, in squares, and in shopping malls. The average time spent on a survey questionnaire per person was 20 to 40 minutes, depending on their ability to read, understand, and communicate. Interviews and focus group discussions lasted approximately 20 minutes. The survey questionnaire and interview and focus group guides are available for reference in appendix A.

Data were collected from June 1 to July 10, 2020. A contracted team of consultants, including an international behavioral analyst, developed the survey design and questionnaire under the overall supervision of the World Bank team; 2,353 surveys, 37 individual interviews, and four focus groups were conducted. The following sections provide further information on the study methodology.

Consultations were held with the World Bank team of the SLP3 and the NCGE to obtain feedback on the results of the study. The findings of the study were presented at the Eastern Regional Conference in Dornod organized by the NCGE on November 12, 2020, which members of the NCGE and community members attended.

Survey questionnaires

The sample size necessary for a representative sample was calculated to be 2,534 (99.7 percent confidence level, ± 4 percent confidence interval, 40 percent to 45 percent estimated response rate). The population of Mongolia was 3,267,673⁷ in 2019, of whom 410,000 lived in the Western region, 604,784 in the Khangai region, 515,025 in the Central region, 221,764 in the Eastern region, and 1,515,593 in Ulaanbaatar. The male population aged 18 and older (997,743)⁸ accounted for 30.5 percent of the total population.

Two thousand three hundred and fifty-six surveys (2,334 face-to-face + 22 online) were collected from Mongolian men aged 18 and older and analyzed. Numerous studies have covered the population younger than 26, so special effort was made to include men aged 30 and older. The study targeted four regions — Western, Khangai, Central, Eastern — and Ulaanbaatar. The survey was conducted in nine districts of Ulaanbaatar and in the soums and *aimags* in the regions as listed below.

- i. Western region: Tosontsengel, Ikh-Uul, and Uliastai soums of Zavkhan *aimag*
- ii. Khangai region: Erdenemandal, and Khaikhan soums of Arkhangai *aimag*
- iii. Central region: Erdenesant, Lun, and Zuunmod soums of Tuv *aimag*
- iv. Eastern region: Tuvshinshireet and Erdentsagaan, and Munkhkhaan soums of Sukhbaatar *aimag*

Further details of the sampled survey population are provided in table 1.

Table 1. Sample Survey Composition

<i>Aimag</i>	Population aged 18+, n	Sample size, n	Soum or district	Total	30-39	40-49	50-59	60+
Zavkhan	36,032	105	Tosontsengel	64	25	16	12	11
			Ikh-Uul	21	8	6	5	2
			Uliastai	20	8	6	4	2
Arkhangai	47,272	137	Tsetserleg	85	31	23	16	15
			Erdenemandal	27	10	10	5	2
			Khairkhan	25	10	7	5	3
Tov	47,447	138	Lun	85	31	33	13	8
			Erdenesant	27	9	9	5	4
			Zuunmod	26	9	7	5	5
Sukhbaatar	31,603	92	Tuvshinshiree	57	20	21	10	6
			Erdenetsagaan	23	8	7	5	3
			Munkhkhaan	12	4	3	3	2
Ulaanbaatar	710,455	2,062	Baganuur	42	16	11	8	7
			Bagakhangai	6	2	2	1	1
			Bayangol	310	110	112	37	51
			Bayanzurkh	508	180	140	126	62
			Nalaikh	54	20	15	10	9
			Songinokhairkhan	470	168	129	116	57
			Sukhbaatar	202	76	60	44	22
			Kan-Uul	260	95	75	40	40
			Chingeltei	210	70	62	45	33
	872,809	2,534		2,534	712	505	304	252

Note: The sample was calculated based on the number of men aged 18 and older in 2019.

Questionnaires were developed from pretested models, adapted to the Mongolian context, on risk-taking decisions and risky behaviors (e.g., taking questions from the health and safety scale, “Domain-Specific Risk-Taking Scale,” in Lundberg and Shapira 2014). The following risky behaviors were analyzed and verified through the survey questionnaire: smoking, alcohol use, unhealthy lifestyle, and help-seeking for medical conditions. Based on this, the questionnaire was divided into the following four sections:

- i. **Participant information** captured demographic information about respondents, allowing aggregation of data according to age, geographic location, and education.
- ii. **Risky health behaviors** captured the degree to which respondents engaged in the four risky health behaviors listed above.
- iii. **Risk taking** was a measure related to specific health- and safety-related risks. Respondents scoring higher on this section were considered to be taking greater risks.
- iv. **Male gender norms** measured the social aspect of male norms (do men believe that other men are participating in risky health behaviors?) and an adapted measure of masculinity that assessed the degree to which a participant conformed to masculine gender norms associated with hegemonic masculinity, which is defined as a practice that legitimizes men’s dominant position in society and justifies subordination of women and marginalized ways of being a man.

The survey questionnaire and subsequent analysis took into account the masculinity hypothesis. The measure of an individual’s propensity to engage in risk-taking behavior can answer an important question about masculinity in Mongolia: Do men with greater belief in masculine traits engage in more risk-taking behavior? The questionnaire was developed to identify whether participants believed that men should engage in risky health behaviors. For example, participants were asked to indicate for each of the following statements the likelihood that they would engage in the described activity or behavior if they were to find themselves in that situation (by providing a rating ranging from extremely unlikely to extremely likely): drinking heavily at a social function, driving a car without wearing a seat belt, riding a motorcycle without a helmet, and walking home alone at night in an unsafe area of town. Thus, the analysis was based on two key hypotheses: Men who indicate that they have a stronger belief in masculine gender norms will be more likely to engage in risky health behaviors, and men who indicate that they have a stronger belief in masculine gender norms will have a greater predisposition to engage in risk-taking behaviors that could put their health at risk

Key informant interviews and focus groups

Focus groups and interviews were conducted to explore social factors, traditional norms, and services that influence male life expectancy in Mongolia. Thirty-seven men from four *aimags* and nine districts of Ulaanbaatar participated in interviews, 27 from rural areas and 14 from Ulaanbaatar; their average age was 45. Focus groups were conducted with men aged 18 to 25, local health officers, police officers, and unemployed men.

The questions developed for interviews and focus groups were designed to gather evidence about which risky health behaviors are seen as being a more present or visible problem, how this differs in different *aimags*, and what has already been done or what more could be done to address these problems. Interviews and focus groups were also a way to obtain information on which of the risky health behaviors should be targeted with a health intervention. The interview process was divided into four sections: introduction, problem identification, solution generation, closing.

Limitations of data collection

The study faced three key challenges during data collection that may have affected the data collected, the analysis, and the results.

- i. **Implementation of the survey was delayed, which limited the time available for data analysis and reporting.** The survey coincided with the parliamentary election campaign period, which necessitated postponement of the survey until the end of the election. The timing of the survey also coincided with the holiday season, which made it difficult for researchers to complete the number of questionnaires scheduled per day.
- ii. **To capture a wider sample size, an e-survey targeting 200 men was planned, but only 22 completed forms were received.** This may have been because of the complexity and length of the questionnaire and the holiday period. Two thousand three hundred thirty-four men completed the physical survey — a response rate of 98 percent.
- iii. **Obtaining information in surveys, interviews, and focus groups was challenging.** Field reports showed that many men were reluctant to participate because they were too busy, did not understand, or “lacked patience” to complete the survey. Men were likely to answer questions that clarified a particular action but were often reluctant to answer questions that sought clarification or further explanation of issues related to that action.

Despite these constraints, fieldwork was completed successfully, and the results are explained in part 4 of this report.





Part 4: Results

This part explains the study results regarding risky behaviors of men in Mongolia. The results are organized into four areas: demographic information about respondents, disaggregated according to age, geographic location, and education; extent to which participants engaged in risky health behaviors (smoking, drinking, unhealthy lifestyle, help-seeking behavior); risk-taking behaviors of men with respect to health and safety; and male gender norms.

Demographic profile

Geographic location

Seventy-seven percent of survey respondents were from Ulaanbaatar, 8.5 percent from Tuv aimag, 5.9 percent from Arkhangai aimag, 4.4 percent from Zavkhan aimag, 3.9 percent from Sukhbaatar aimag, and 0.3 percent from other aimags. Six percent had lived in their location for less than 3 months, 14 percent for up to 1 year, and 79.5 percent for more than 1 year. Men in rural areas change locations more often than those in Ulaanbaatar because of livestock- and agriculture-related seasonal movements. Figures 1 and 2 show respondent locations according to soum and district and duration of residency, with the largest sample size in Songinokhairkhan district and the smallest in Bagakhangai district. The number of people residing in one place for more than 1 year was lowest in Tuv aimag and highest in Sukhbaatar aimag.

Figure 1. (A) Location of Respondents and (B) Duration of Residency

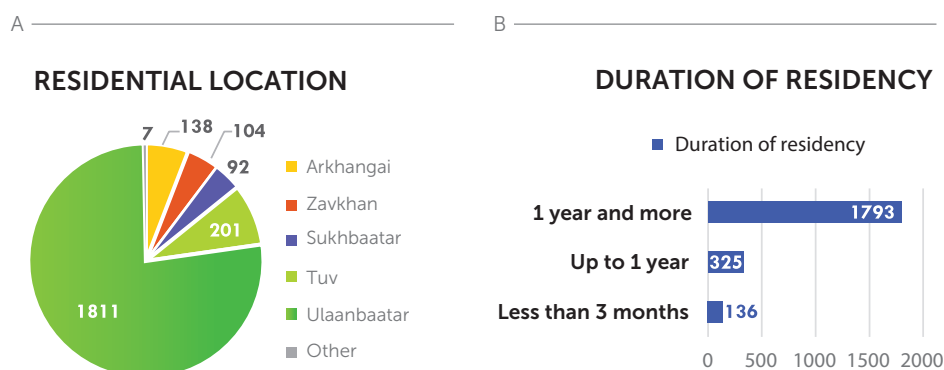
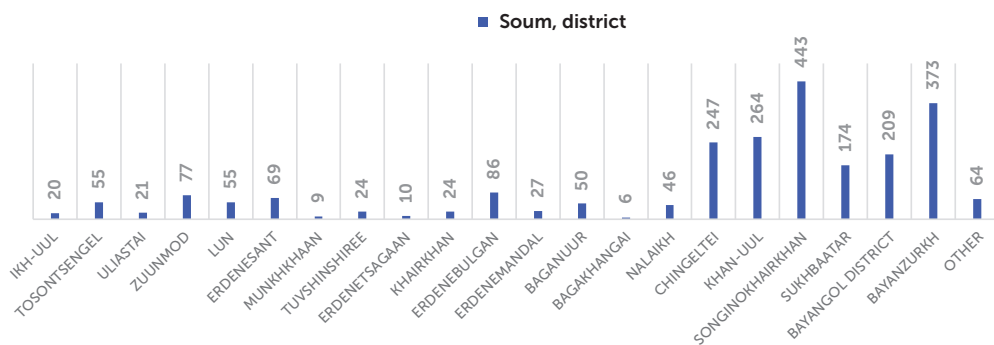
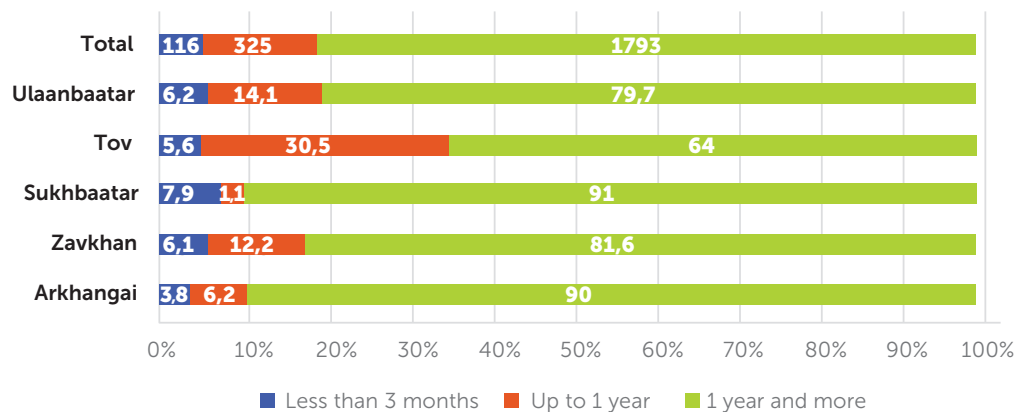


Figure 2. Location of Respondents According to *Soum* and *District*



Of the men from Ulaanbaatar, 6.2 percent had been living in the location for less than 3 months, 14.1 percent for less than 1 year, and 79.7 percent for more than 1 year (figure 3). A concentration of infrastructure, road networks, and trade and service opportunities is likely to attract a large number of people to urban areas in pursuit of services, businesses, and trade.

Figure 3. Duration of Residence According to *Aimag*

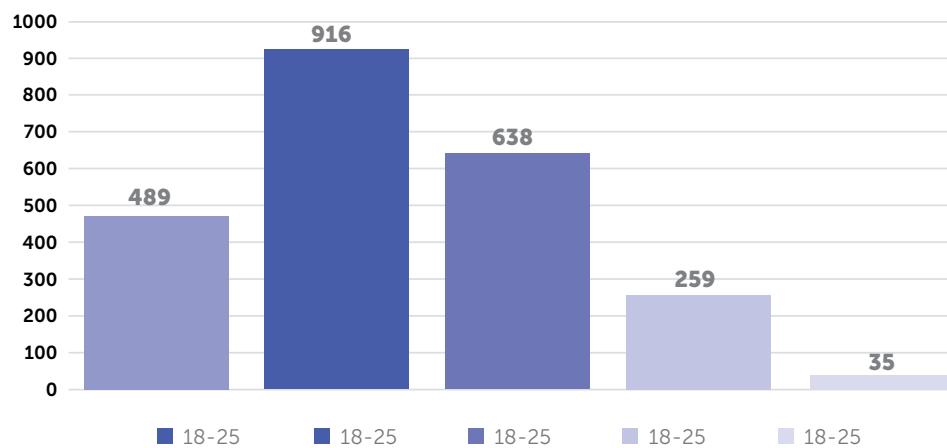


Of men aged 18 to 25, 10.2 percent had lived in the same area for less than 3 months and 18.6 percent up to 1 year; 87.5 percent of men aged 55 to 69 had lived in the same area for more than 1 year. This suggests an influx of young citizens to urban areas, with older men tending to stay in rural areas.

Age group

Of those who indicated their age, 21 percent were aged 18 to 25, 39 percent aged 26 to 39, 27 percent aged 40 to 54, 11 percent aged 55 to 69, and 2 percent aged 70 and older; 2,337 respondents (99.3 percent) indicated their age group (figure 4). To explore variations in behaviors and attitudes of respondents to a given topic, respondents were categorized into the following age groups: 18 to 25, 26 to 39, 40 to 54, 55 to 69, and 70 and older.

Figure 4. Age Group



Education level

The majority of respondents had a high school education or a bachelor's degree; 2,335 respondents provided information related to educational level (figure 5). Most respondents who had received secondary or primary education were from Sukhbaatar aimag, most respondents with a bachelor's or high school education were from Zavkhan aimag, and respondents who were least educated were from Tuv aimag (figure 6).

Figure 5. Education Level

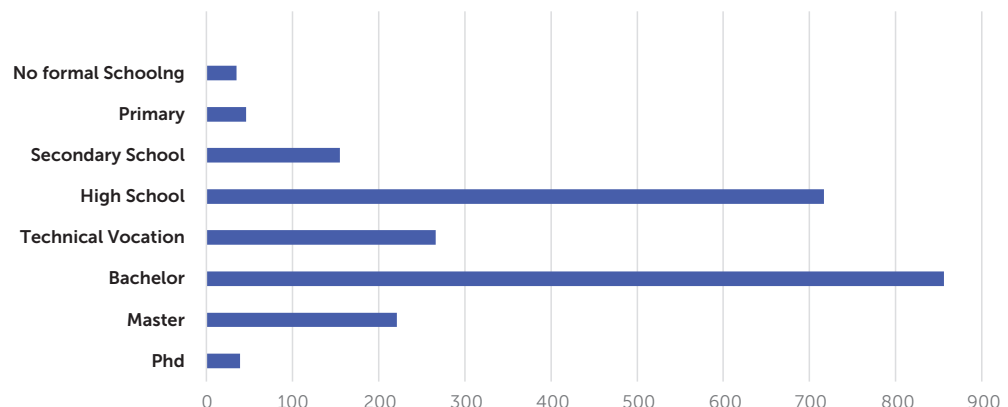
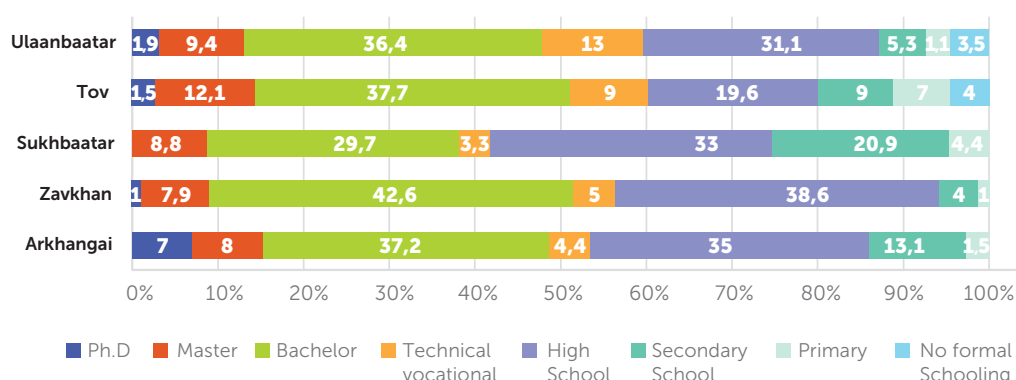
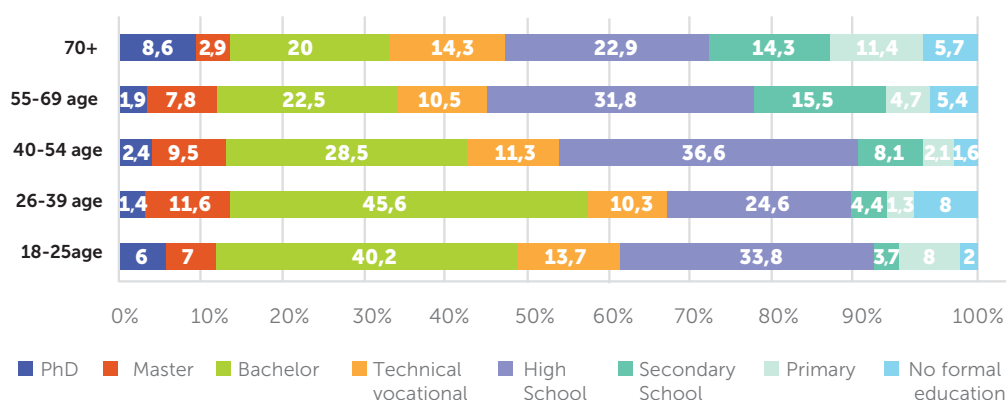


Figure 6. Education Level According to Aimag



Of respondents aged 18 to 25, 33.8 percent had completed secondary education, and 40.2 percent had a bachelor's degree (figure 7). Of men aged 70 and older, 14.3 percent were educated in technical and vocational schools. Younger respondents had attained a higher level of education than older respondents and tended to remain in urban centers.

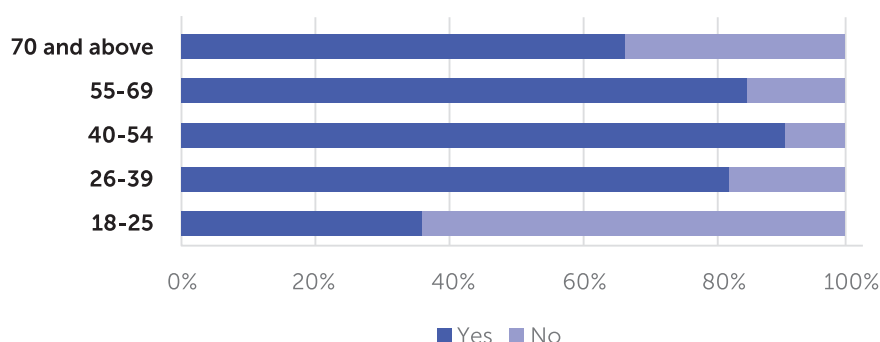
Figure 7. Education Level According to Age Group



Marital status

Two thousand ninety-seven respondents (89 percent) provided information on marital status (figure 8), of whom 76.1 percent were married and 23.8 percent were single. In terms of each of the surveyed *aimags*, Zavkhan had the highest percentage of married men (87.5 percent), and Ulaanbaatar had the lowest (73.6 percent).

Figure 8. Marital Status According to Age Group





Employment

Of men who responded to employment-related questions (2,324, 98 percent), 6.2 percent were retired, and 6.8 percent were university students (figure 9); 63.6 percent worked in the public or private sector, 10.5 percent were self-employed, and 1.2 percent did housework or could not work because they had household responsibilities. Further data on employment according to aimag is shown in figure 10.

Figure 9. Employment

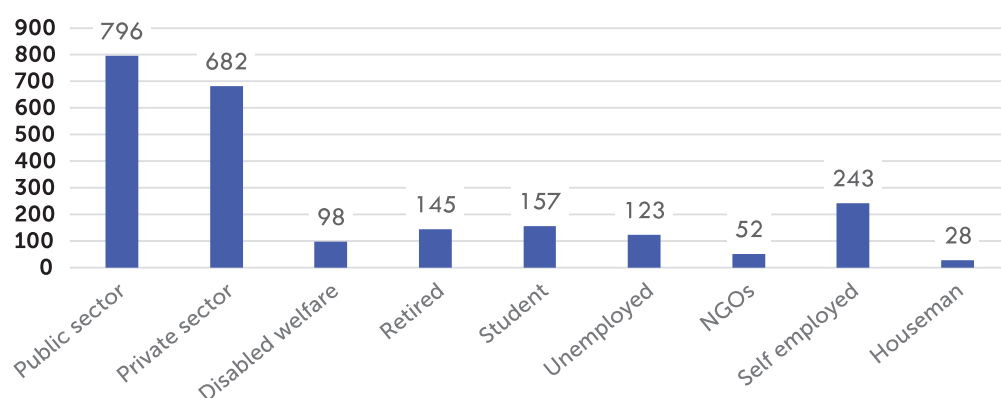
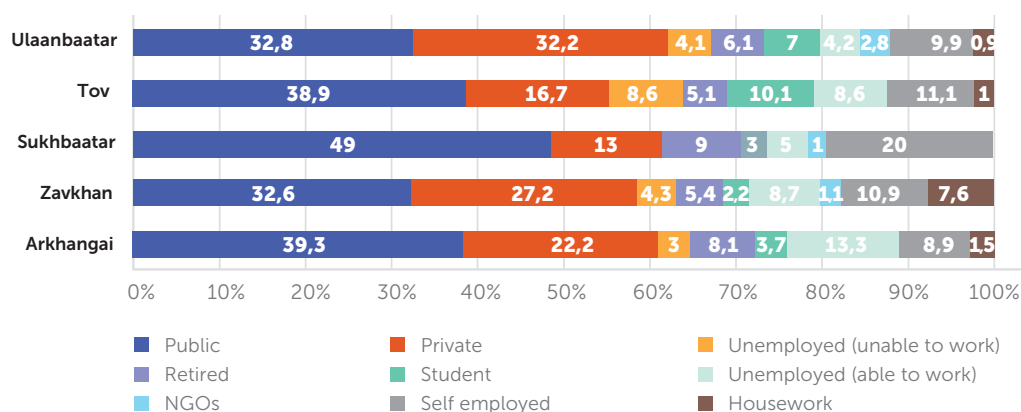
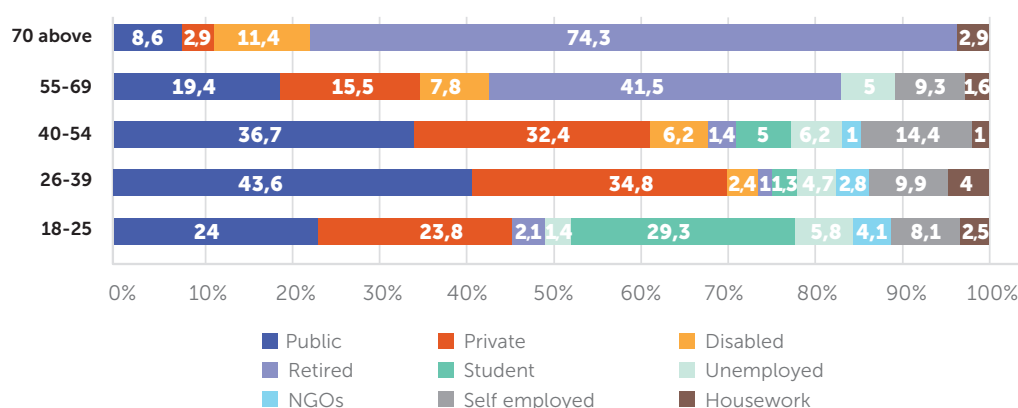


Figure 10. Employment According to Aimag



Most respondents aged 26 to 54 (36.7 percent to 43.6 percent) worked in government organizations. Of respondents aged 26 to 39, 34.8 percent worked in the private sector. Approximately 30 percent of men aged 18 to 25 were students, and 74.3 percent of those aged 70 and older and 41.5 percent of those aged 55 to 69 were retired (figure 11).

Figure 11. Employment According to Age Group



Of men aged 55 and older, 10 percent were unable to work because of disability, compared with 6.2 percent of those aged 40 to 54 and 2.2 percent of those aged 18 to 39. The number of people aged 40 and older with disabilities is increasing sharply.

Interviews revealed problems related to occupation or workplace that influence male health. Some occupations and jobs were perceived as having a risk factor that harmed the health and well-being of men. For example, men working in desk jobs were more likely to be obese and have back problems because of lack of exercise, and government officials were more likely to have high levels of stress from workload and social interactions (in addition to existing illnesses).

I am the head of the aimag's governor's office. This work has a negative effect on my health; for example, it causes fatigue, a lot of stress and strain, and this inactive work itself leads to lack of movement. I also have a lot of spinal problems because I drive a lot. In fact, obesity poses many health risks due to lack of exercise.

I am a doctor. I think there are career risks. Because I am a surgeon, there is a high chance of infection through direct exposure to cuts. In addition, the workload has a lot of impact.

Our police officers work in dangerous health conditions. Snow, rain, heat, and cold can cause many problems. After working for at least 5 years, there are many cases of chronic illness or some form of serious illness.

Because of the sedentary work, there are problems with the lack of physical movement. Moreover, many people get stressed out when they hear about other types of problems.

The need to identify risk mitigation measures for different types of occupations was evident in these interview responses.

Individuals who care for livestock, those in agriculture, and those who are self-employed must work in all weather conditions, work long hours, do not get enough rest or pay enough attention to their health, have poor working conditions, lack heating, and often have poor equipment, which were also viewed as leading to men's health deterioration.

I am self-employed and work in a store. I don't think it's good for my health to be overworking, to be tired, and not to eat on time or to eat only when I have time. I also have to keep my urine in for a long time and sleep less than normal.

Employees of large private companies or their subcontractors stated that workplace pressures, behavior of co-workers, and the work environment were detrimental to their health, although these men were usually more likely to be provided with safety equipment than public employees and self-employed people. Risk factors for occupational health included use of toxic substances (e.g., fuels, lubricants, disinfectants, fertilizers, medicines) and conditions such as dust, noise, and long hours of work.

In some cases, for example, using disinfectants can have side effects. Eventually, I think, there is a high probability of having allergies or respiratory or other health problems.

Many things such as weather-related hazards can affect herders and other agricultural workers.

Our men are doing a lot of hard work. Lack of knowledge about the safety of their work increases the risk of sudden death and disability. Their apathy and reluctance to use health care and poorly managed diet are factors. Going out in the countryside; being hungry, wet, or cold; and eating ready-made fast food may be detrimental to one's health.

In terms of the social effect on aging, it seems that men's work environment is demanding. Jobs that are dominated by men are worse than jobs that are dominated by women.

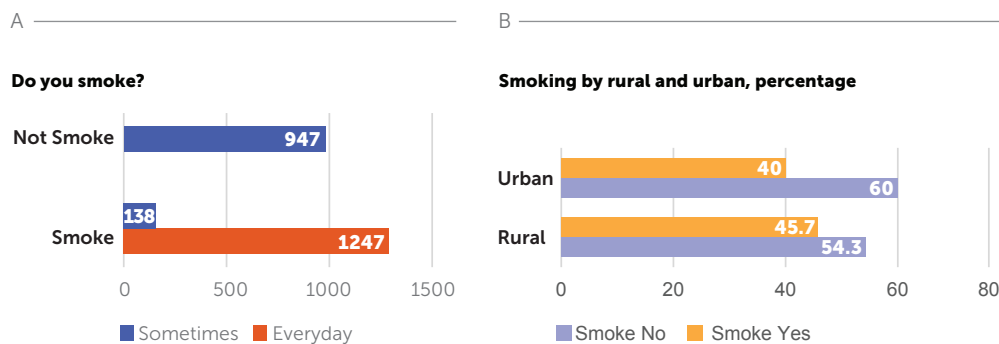
It is estimated that 10.6 percent of respondents aged 18 to 25, 13.9 percent aged 26 to 39, 15.4 percent aged 40 to 54, and 10.9 percent aged 55 to 69 were unemployed. These figures were reached by combining those who were unemployed and those who kept house to calculate how many did not have paid employment. The field survey showed that unemployed men were not motivated to participate in the survey because no remuneration was offered for responding, which may suggest that the above unemployment figures are actually higher. The reasons for unemployment for men of different age groups varied; for instance, those aged 18 to 25 were likely not to have sufficient work experience, and those aged 40 to 54 stated that such things as their physical appearance and living conditions were the reason for their unemployment.

Risky health behaviors

Tobacco use

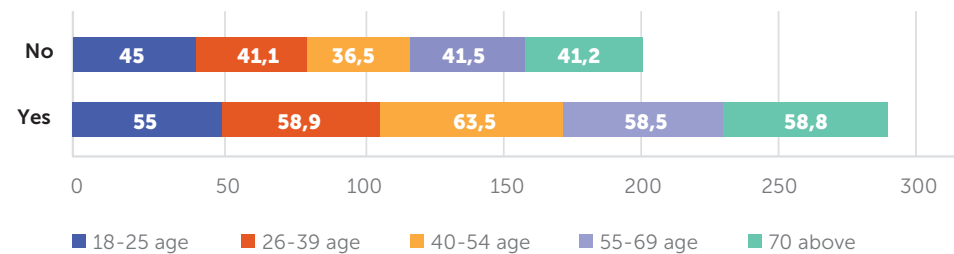
Of 2,332 respondents who responded to the question about smoking (99 percent of the surveyed population), 1,385 (59.4 percent) said they smoked, and 947 identified themselves as nonsmokers (figure 12). Of the men who smoked, 90 percent said they smoked daily. Smoking in urban areas was slightly higher (60 percent) than in rural areas (54.3 percent).

Figure 12. Tobacco Use (A) Overall and (B) According to Location



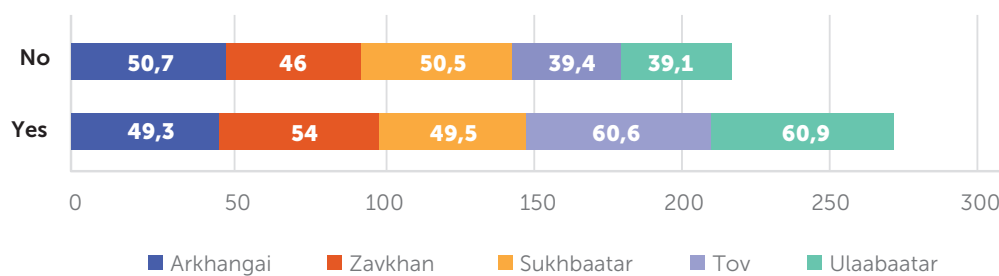
Men aged 18 to 25 were least likely to smoke (55 percent). Tobacco use rose to 63.5 percent of those aged 40 to 54 and declined slightly after the age of 54 (figure 13).

Figure 13. Tobacco Use According to Age Group



In Ulaanbaatar and Tuv *aimags*, more than 60 percent of men smoked daily, compared with 50 percent in Zavkhan, Arkhangai, and Sukhbaatar *aimags* (figure 14).

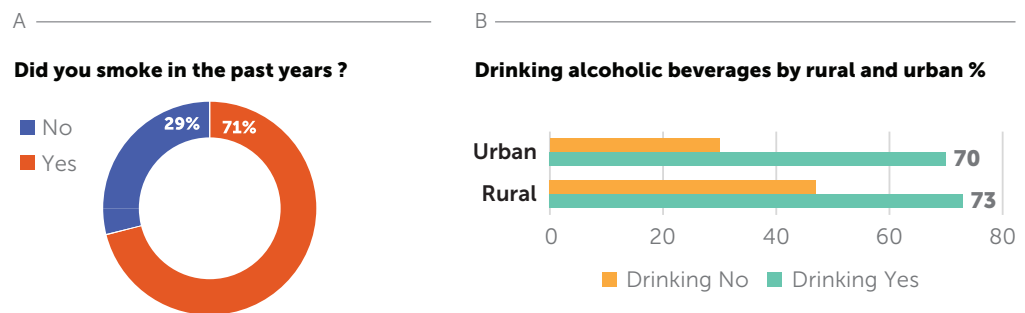
Figure 14. Daily Tobacco Use According to Aimag



Alcohol use

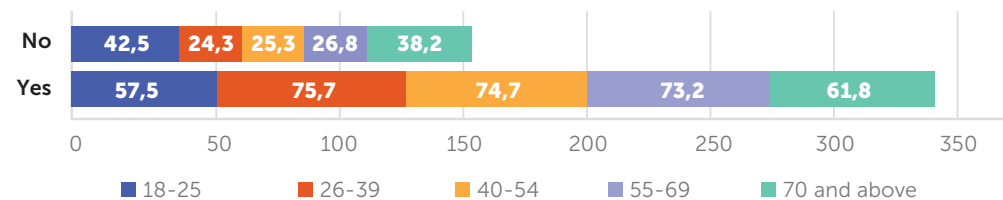
Of those who responded to the question about whether they had consumed alcohol within the last year, 1,605 (70.9 percent) said they had, and 658 (29.1 percent) had not (figure 15). Two thousand two hundred sixty-three men (96.1 percent) responded to the question about whether they had consumed alcohol within the last year. Men in rural areas were slightly more likely (73 percent) to drink alcoholic beverages than those in urban area (70 percent).

Figure 15. Alcohol Use (A) Overall and (B) According to Location



Alcohol consumption was highest between the ages of 26 and 39 (75.7 percent), declining slightly in older age brackets but remaining above 70 percent (figure 16). Alcohol consumption was lower in those aged 18 to 25 and 70 and older (60 percent) than in other age groups.

Figure 16. Alcohol Use According to Age Group



Of men aged 40 to 69, 3.8 percent consumed alcohol every day, compared with 2.5 percent of men aged 18 to 39 (figure 17). It was more common for men to say that they drank alcohol once a month than every week, although "once a month" at times continued for several days.

Figure 17. Alcohol Use per Week According to Age Group

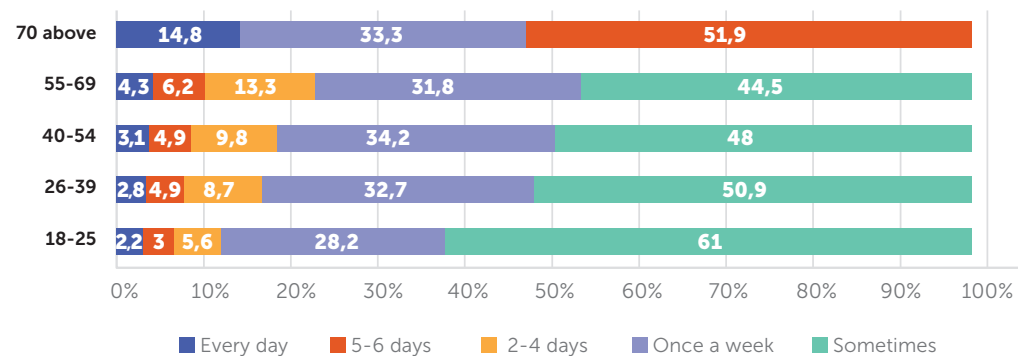
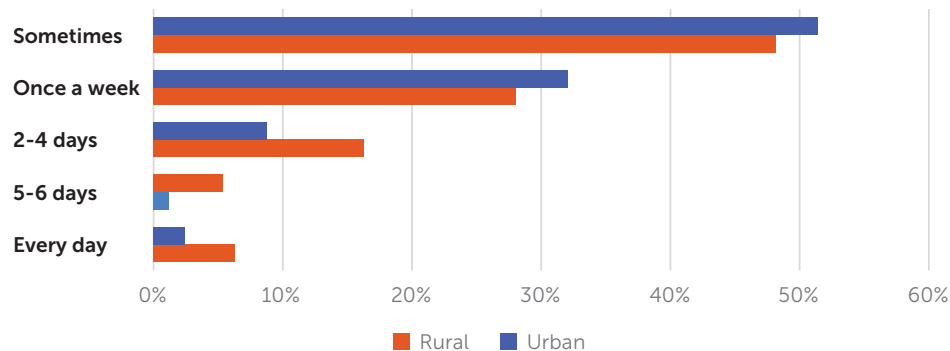


Figure 18. Frequency of drinking



When asked about frequency of alcohol consumption, 2,091 men responded (88.8 percent); when asked a question about specifics of drinking, willingness to respond dropped by 10 percent. Nonetheless, the interview excerpts below illustrate issues surrounding male alcohol consumption.

It shocks me how ignorant Mongolian men are. They can brag, exaggerate bad things, and become extreme, especially if they drink too much alcohol for too many days and smoke, which can damage their health.

Women do housework or sedentary work that takes less energy. However, herder men often go out in the cold, or heat in the summer, but men have been riding motorcycles lately and drinking a lot of alcohol, and generally they make poor lifestyle choices and are careless.

There is social pressure on men to smoke and drink alcohol. As a man, you have to experience all of them to relieve stress or to make friends — something like that is required. As it continues, I think it becomes a personal problem that leads to alcoholism and smoking and negatively affects family life. This probably affects the health and psychology of men. These social pressures have been here for a long time, and it's difficult to change, and it is understood as what a man should do. This is probably because, in ancient times, men had to go to war, men had to work hard at manual jobs and be strong, and people still believe such outdated stereotypes.

Now, as I see it, young people's alcoholism is lower than it was in 1995, but smoking has increased. At that time, there were no women who smoked, but now there are very few women who do not smoke. It depends a lot on the individual, and the type of upbringing the child has had.

Although social stress is relatively small, alcohol abuse is common. Unemployed people drink together because they have it in common. Excessive alcohol consumption can lead to injuries and high blood pressure. There are many unemployed and low-income young people in the soum center.

I think there is a societal influence. For example, there are different ways to cope with stressful problems in the workplace. I think society has some influence. Men are under a lot of stress because of unemployment, and they can't deal with it like women.

Alcohol and tobacco are not discouraged. I was born and raised in an environment where I thought drinking was a part of our culture, so I thought it was the right thing to do. I had no choice but to do so. In Mongolia, if you don't drink, you don't have friends and colleagues, and your job does not go as planned, and that makes it necessary for men to drink.

Alcohol consumption is lower today than in the 1990s, but it is not at a desirable rate. Free gym or other educational alternatives could be helpful.

Nearly 99 percent of men involved in motorcycle accidents are recorded to have consumed alcohol.

When men become depressed, they use a lot of alcohol and tobacco. For example, men rarely go to the hospital and barely care if they have a headache. A woman pays a lot of attention to wellbeing.

Men's alcohol and tobacco use is high, and everyone has the same access to health care, but men don't go there as often.

I am 31 years old and have been working in this soum for 8 years. In terms of addiction, alcohol and tobacco use, it is almost the same for men and women, but long-term use is more common in men. The rate of addiction is probably the same for men and women. There is almost no difference in lack of exercise, but there have not been any case studies on this.

People from the city use alcohol because of unemployment. We use the "day care" method to kill time. There is a hospital for men. But we are judged by how we look. You're an alcoholic, you have a bad liver, you have a bad lung. So they don't like going to hospitals.

Men use [alcohol] more than women for sure. It shows itself first within today's stereotypes and secondly because of its biological nature. This is because men do not bear children, and therefore it is believed that men have a high biological tolerance to alcohol. At least there would be no menstrual cycle for men, and if they black out somewhere, they have no worries. But women have other concerns like their beauty. These types of gender-related factors exist. To live up to the stereotype, men do not express their pain. For example, when men get bitten by ticks, they contact medical help when the infection is in the worst state. Women take care of themselves in different ways. In general, women pay more attention to their health, perhaps because of their responsibility to take care of children. Men usually do menial jobs that require physical force, and they neglect minor injuries. They contact medical help after almost losing their ability to work.

Men's alcohol consumption is high. Men were drinking a lot when I worked at Tavan Tolgoi mining. Generally, 60 to 70 percent of men drink and sometimes even use drugs. But generally, they consume alcohol. You could drive drunk and get yourself into an accident or street fight. Men have greater access to medical care than women, but women are more likely to seek medical care because they care about their health, whereas men are lazy or reluctant to seek help.

The interview responses corroborate the survey results, which show that 70 percent of men drink alcohol to some degree in their lifetime and that chances of motor vehicle crashes and incidence of violence increase with drinking.

Respondents were asked, “If you had the opportunity to magically remove all bad habits from men, such as alcohol, tobacco, and poor diet, what would be the first thing you would do to change a man’s behavior?” “Getting rid of alcohol” was the most popular response, followed by “getting rid of male reluctance and carelessness,” “making men care about their health,” and “making men have better diets.” These are further illustrated through the interview excerpts below.

We just want to reduce alcohol and tobacco consumption.

“It is okay for only this time” mentality needs to stop. Any bad habit starts from one exception and then goes on too many times.

If I were given that opportunity, I would probably stop eating unhealthy food.

If I become a magician, I think I will work for the good of my country. I will work to reduce alcohol and tobacco use.

I would fix the fact that men do not do something that is necessary for them and decrease alcohol consumption.

I wish tobacco would disappear, but there are some special cases where we need alcohol.

There is a common problem among men — carelessness and sloppiness.

In general, it would be nice to reduce the alcohol problem. Alcohol is the most common problem for Mongolian men.

Exercise

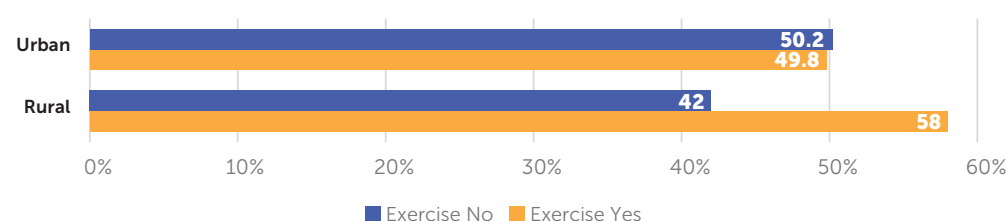
Approximately 59 percent of men in Arkhangai and Zavkhan aimags and 64.8 percent in Tuv aimag exercised regularly (figure 19). Men in rural areas were more likely to participate in physical exercise. These activities were more related to daily chores than gyms or clubs; 50.2 percent of respondents in Ulaanbaatar and 58.7 percent in Sukhbaatar replied that they did not exercise. Of the 2,353 men who participated in the survey, 2,249 answered questions about exercise (95.5 percent of the research population).

Respondents aged 18 to 25 were most likely to exercise, and those aged 40 to 54 were less likely. Additional questions related to exercise such as whether respondents performed housework, rode a bike, or walked intensely one to two times a week for 30 minutes were included to determine how realistic these indicators were. Although fewer men answered these questions than answered the previous question, they provided an opportunity to draw conclusions about exercise-related questions. In interpreting these results, the limits of respondents’ understanding and interpretation of the question must be considered (whether he can ride a bicycle, rather than his regular use of a bicycle for exercising). It is also possible that questions related to housework were understood as cooking and cleaning rather than manual work outside the house.

Of men who answered these survey questions, 48.2 percent did not exercise (walk) intensely one to two times a week. Of the five locations surveyed, respondents in Arkhangai and Tuv aimags were least likely to exercise (walk). By contrast, 68 percent in Zavkhan and 51.1 percent in Ulaanbaatar exercised (walked) one to two times a week. Of those aged 18 to 25, 55.7 percent responded that they exercised (walked), decreasing to 48 percent of those aged 55 to 69 and 38.2 percent of those aged 70 and older.

Almost 44 percent of men participated in household cleaning, 27.7 percent rarely participated, and 15.9 percent did not participate at all. Men aged 18 to 25 were most likely to perform household chores (58.4 percent), followed by those aged 26 to 39 (56.6 percent), 40 to 54 (56.5 percent), 55 to 69 (64 percent), and 70 and older (40.7 percent).

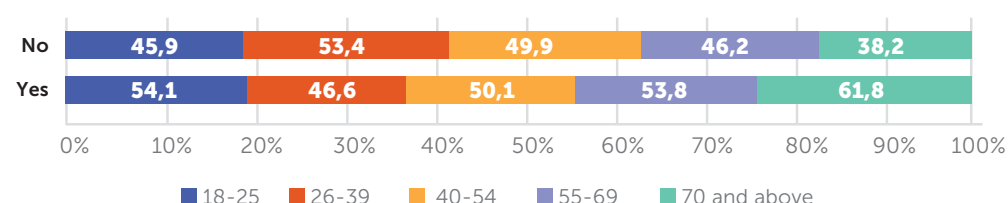
Figure 19. Exercise According to Location



Diet

Half of respondents said that they ate good-quality, nutritious food (figure 20). Of the 2,353 men who participated in the survey, 2,220 (94.3 percent) answered questions about diet. Dietary questions were asked to determine whether respondents were obtaining the levels of nutrients required to maintain health; 54.1 percent of men aged 18 to 25, 46.6 percent aged 26 to 39, and 61.8 percent aged 70 and older believed that they were eating properly.

Figure 20. Percentage of Respondents Who Believed They Were Eating an Optimal Diet, According to Age



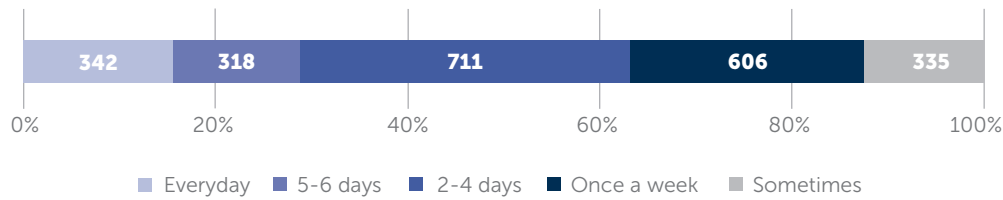
The interview excerpts below illustrate opinions about the male diet. Respondents seemed already aware of the gender difference in life expectancy and the need for targeted intervention.

The average life expectancy of Mongolian men is lower than that of women, of course, because of differences in lifestyle — eating routines and bad habits, influenced by apathy and risky behaviors.

There is a general stereotype. For example, you have to eat a lot to be a man.

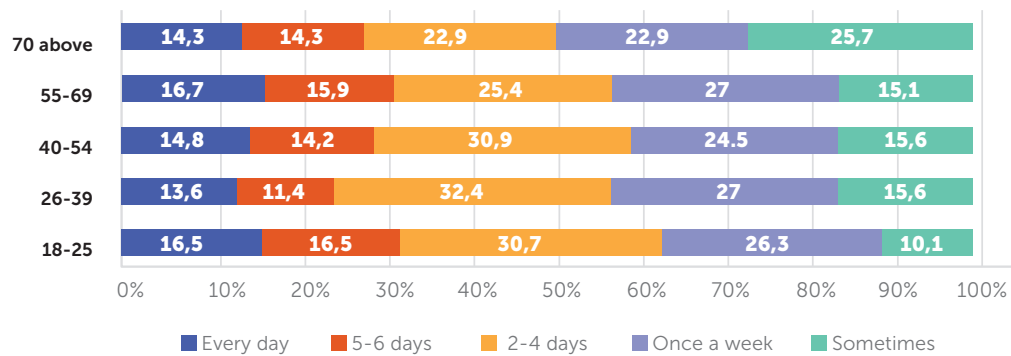
Of the 2,312 men who answered questions about regular consumption of fruits and vegetables, 342 (14.8 percent) consumed fruits and vegetables daily, 318 (13.8 percent) 5 to 6 days per week, 711 (30.8 percent) 2 to 4 days per week, and 606 (26.2 percent) once per week; 335 (14.5 percent) sometimes completely skipped fruits and vegetables (figure 21). More than 60 percent of men in Ulaanbaatar and 40 percent of men in Sukhbaatar *aimag* consumed fruits and vegetables 3 to 7 days per week. Location and supply of fruits and vegetables are factors in this result.

Figure 21. Vegetable Consumption



Thirty-three percent of men aged 18 to 25 consumed fruits and vegetables weekly, and 10 percent consumed them occasionally, indicating that consumption of fruits and vegetables in this age group was the highest (figure 22). Men aged 70 and older were less likely to consume fruits and vegetables, with more than 48 percent not eating them at all or consuming them once a week.

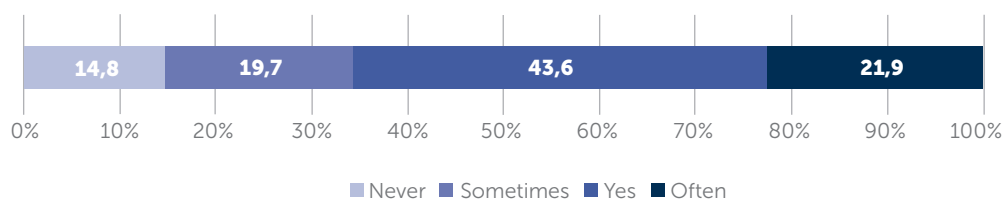
Figure 22. Vegetable Consumption According to Age Group



Salt consumption was higher in men in the Eastern and Central regions than those in the Western and Khangai regions. For example, 38.9 percent of respondents in Tuv aimag, 38.5 percent in Sukhbaatar aimag, and 36.5 percent in Ulaanbaatar said that they added salt to their food, compared with 21 percent in Zavkhan aimag.

Approximately 22 percent of respondents regularly bought soda and sweets, and 43.6 percent did so most of the time (figure 23). Consumption was highest in Arkhangai aimag (70.7 percent), followed by Ulaanbaatar (67 percent) and Zavkhan (49.5 percent). Men aged 18 to 25 consumed the most carbonated drinks and sweets (71.8 percent), with consumption decreasing with age, to 47.1 percent in those aged 70 and older.

Figure 23. Consumption of Soda and Sweets

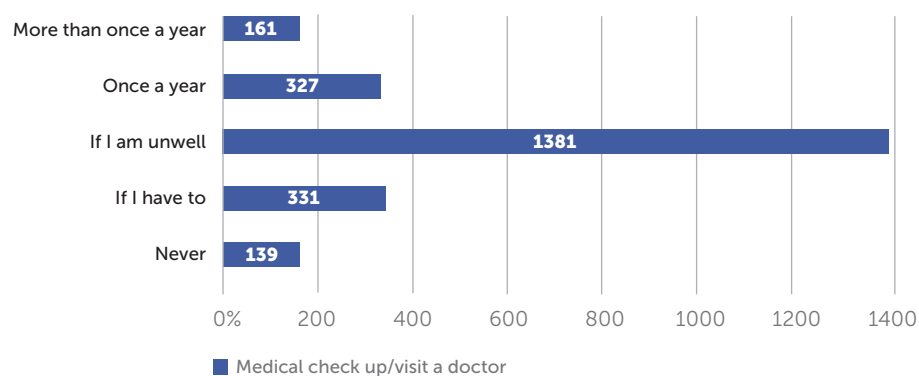


In summary, 66.2 percent of men surveyed said that they ate salty fried foods; 65.8 percent ate salty foods; and 65.5 percent regularly consumed carbonated beverages, cookies, chips, and cakes. Coupled with insufficient exercise, diet may be affecting men's life expectancy.

Medical Examinations

One thousand three hundred eighty-one (59 percent) respondents stated that they see a doctor only when they feel sick (figure 24). This section of the survey had the most responses, with 2,339 (99.4 percent) men answering questions regarding when and why they visit the hospital and their doctors.

Figure 24. Medical Examinations



This is illustrated in the interview excerpts below. Interviews revealed that men normally do not go to the hospital unless they are seriously sick.

Men never go to the hospital unless they are sick. A few people go to the hospital, but most of them don't go.

Men are careless. They don't show the symptoms. I didn't show it when I was young, but now I go to the doctor.

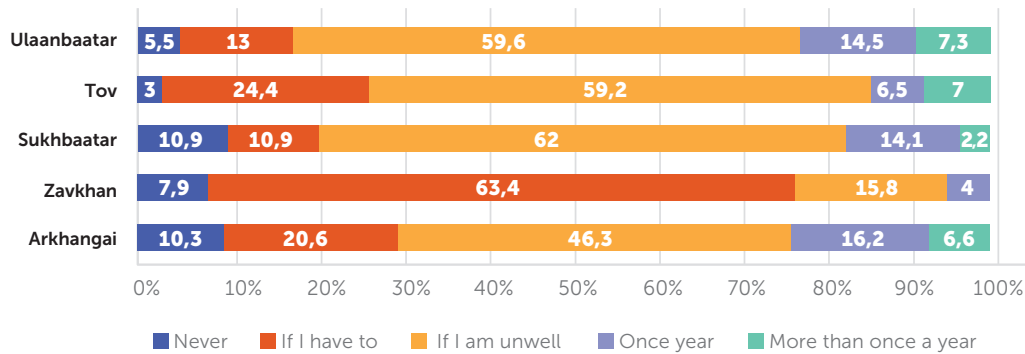
Society looks down upon men who go to the hospital many times and get sick.

Men do not go to the hospital. Our medical service is really good. Doing a medical check-up once a year is good. Men do not love themselves. They need to pay attention to their health.

One hundred thirty-nine (5.9 percent) men stated that they had never visited the hospital or sought the attention of a doctor, whereas 339 (14.2 percent) stated that they had sought medical attention even when there was no immediate need for it. Approximately 59 percent sought medical attention when there was a need for it, 35.1 percent did so as a precaution, and 5.9 percent had never sought medical attention.

Men in Ulaanbaatar, Tuv, and Arkhangai *aimags* were most likely to visit the doctor for preventive measures, and those in Zavkhan and Sukhbaatar *aimags* were most likely to visit a health facility only when they experienced symptoms (figure 25). This suggests that the further away a community is from a professional health facility, the less likely it is that the men who live there will seek medical help.

Figure 25. Medical Examinations According to Location



Interviews revealed that men ignored health problems, thinking that things would be fine in the long run. For example, if men had headaches, they took a pain reliever, and if they had kidney pain, they bought medicine from the pharmacy to relieve the pain. The interview excerpts below illustrate male perspectives.

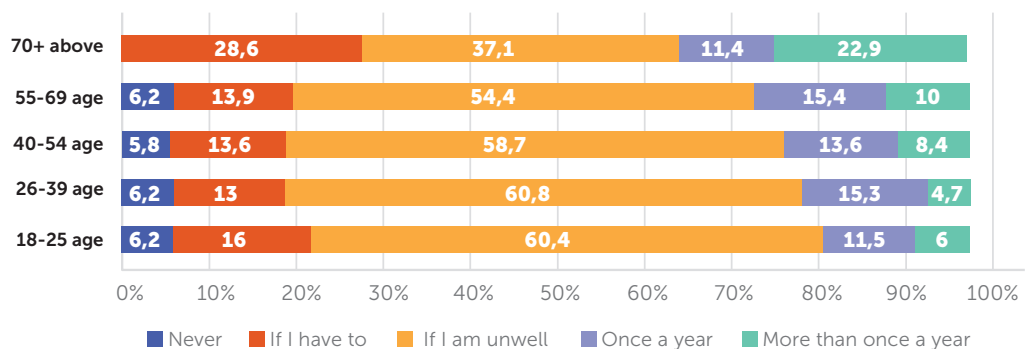
We diagnose our cars every year. However, men do not see a doctor once a year. They wait until things are severely hurt.

It is easier for women to receive medical aid. Men are too lazy to go to the doctor and only go to the doctor when things get severe. Also, lines and waiting times are too long, especially in public hospitals, and not everyone has access to private medical centers.

Men have less access to health care than women. They do not care about their health as much, and the lines are too long in hospitals to wait, so they neglect their problems unless they are severe.

Approximately 6 percent of men aged 18 to 69 did not seek medical care (figure 26). Those aged 18 to 25 were least likely to go to a health facility, with the rate increasing gradually, reaching 23 percent for men aged 70 and older. Generally, men only seek medical care if they are ill (60 percent of men younger than 70).

Figure 26. Medical Examinations According to Age Group



At the end of the interview, when respondents were asked whether they had any additional comments or concerns on this topic, the majority suggested that starting health education at an early age would be much more effective than in old age. When men were asked “When do you think you will turn old,” men from urban areas responded 50 to 60, and men from rural areas responded 40 to 45. Families of men aged 45 and older were more stable than families of those younger than 35, because the latter were interested in high-paying jobs, which can lead to long periods of employment and living away from home. Furthermore, in rural areas, sending young children to school to soum districts along with their mother, while the father stays back due to livelihood activities, could lead to family disputes and divorce. The need to focus on family stability when young men plan for jobs was highlighted during interviews. The following interview excerpts highlight related concerns.

It is necessary to study working conditions carefully and provide counseling and information according to age and job specifics.

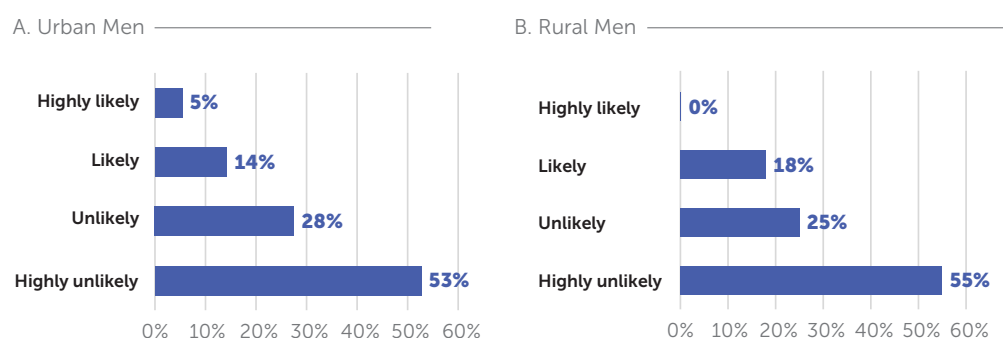
The current problem in Mongolia is that family revenues do not exceed expenditures. Therefore, it is better to take measures related to sustainable employment. I think this will make it a little closer to solving the current issues. Even a janitor abroad can live on his salary and have a reasonable income and sustain himself. However, Mongolian men do not earn enough to live on, and their salaries are not enough to cover their living expenses, which leads to a lot of problems. Without solving the root issue, it takes a snowball effect and goes on.

Men usually settle down and become grounded when they reach 45 years. I think there should be comprehensive service of alcohol healing (taking actions to decrease the addiction rate).

Risk-taking

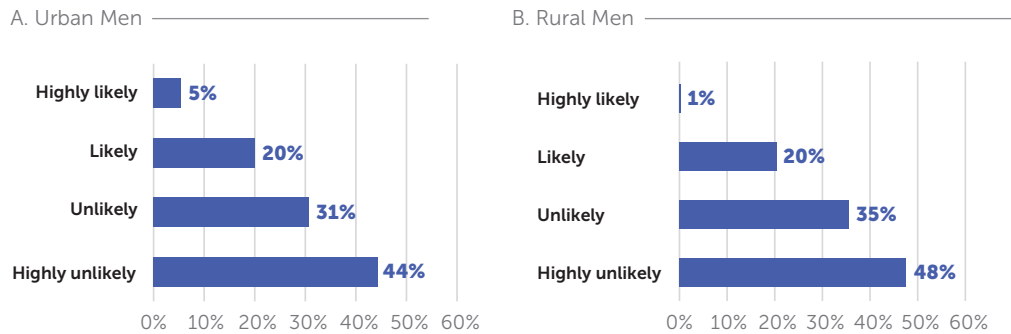
When asked, if given a chance, would they “drink heavily at a social function” (figure 27) 5.0 percent of urban and 0.1 percent of rural participants were highly likely, 14 percent of urban and 18 percent of rural respondents were likely, 28 percent of urban and 25 percent of rural respondents were unlikely, and 53 percent to 55 percent of urban and rural respondents were highly unlikely. Approximately 81 percent of men said that they did not drink heavily; 51.6 percent did not drink heavily at social functions, with 24.4 percent of those aged 55 to 69 and 23.0 percent of those aged 70 and older saying that they did so. Respondents aged 26 to 39 were least likely to drink at social functions (16.4 percent).

Figure 27. Likelihood of Drinking Heavily at a Social Function: (A) Urban and (B) Rural Men



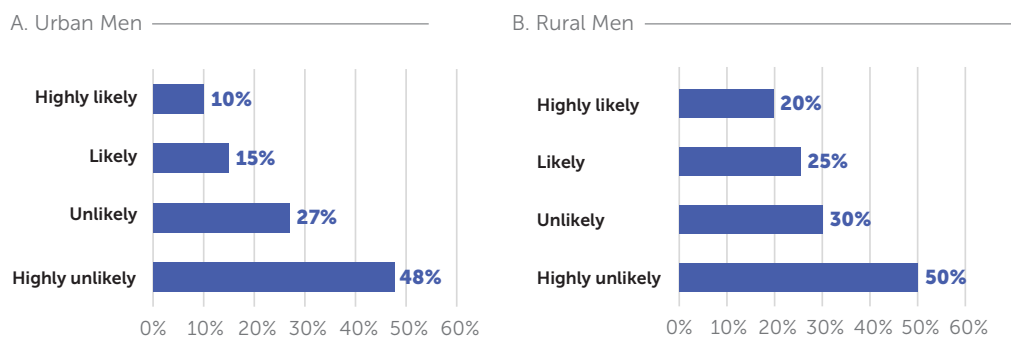
Approximately 42 percent of men who responded to a question about their likelihood of engaging in unprotected sex said that they were highly unlikely to do so, 30.3 percent that they were unlikely, 20.9 percent that they were likely, and 6.9 percent that they were highly likely. Respondents aged 26 to 54 were most likely to engage in unprotected sex (28 percent), and those aged 18 to 25 were least likely to do so (12.7 percent). There was no difference between urban and rural participants (figure 28).

Figure 28. Likelihood of Engaging in Unprotected Sex



The survey asked about traffic safety; 45.3 percent of respondents were highly unlikely to drive a car without a seat belt or ride a motorcycle without a helmet, 26.1 percent were unlikely, 17.5 percent were likely, and 11.4 percent were highly likely. Only respondents who frequently drove a motorcycle or automobile tended to answer the question. The differences in driving a car without wearing a seat belt was higher in rural areas (figure 29).

Figure 29. Likelihood of Driving a Car Without Wearing a Seat Belt:
(A) Urban and (B) Rural Men



When asked about sunbathing without sunscreen, 27.5 percent of respondents were highly unlikely, 29.7 percent were unlikely, 28.5 percent were likely, and 14.4 percent were highly likely. This indicates that 57.2 percent of respondents do not sunbathe without sunscreen but that a significant number of people still take the risk.

When asked about walking home alone at night in an unsafe area of town, 50.3 percent of respondents replied that they were highly unlikely to do so, 30.5 percent that they were unlikely, 13.1 percent likely, and 6 percent highly likely.

Male gender norms

This section examines how gender norms and stereotypes about men may be detrimental to men's health. Men who believe in stereotypical male gender norms may pose a risk to themselves. This part of the survey identified what are seen to be general male behaviors, which play a role in the social aspects of male behavior. The results are presented in two parts. The first examines the social aspects of male norms: whether men believe that other men are participating in risky health behaviors. The second part discusses an adapted measure of masculinity that assesses to what degree a participant conforms to masculine gender norms associated with hegemonic masculinity.

Notable differences were observed between respondents with different educational backgrounds when asked questions about gender norms. When asked whether men drink alcoholic beverages, 36 percent of respondents who had completed high and secondary school strongly disagreed each, whereas respondents who had completed university tend to agree that men drink alcoholic beverages (figure 30).men, with only 37.2 percent of participants agreeing that "men drink alcoholic beverages." Approximately 61 percent men agreed or strongly agreed that "men keep it to themselves when they are stressed."

Figure 30. Men Drink Alcoholic Beverages: Respondents Who Had Completed (A) Secondary School, (B) High School, (C) College, and (D) University

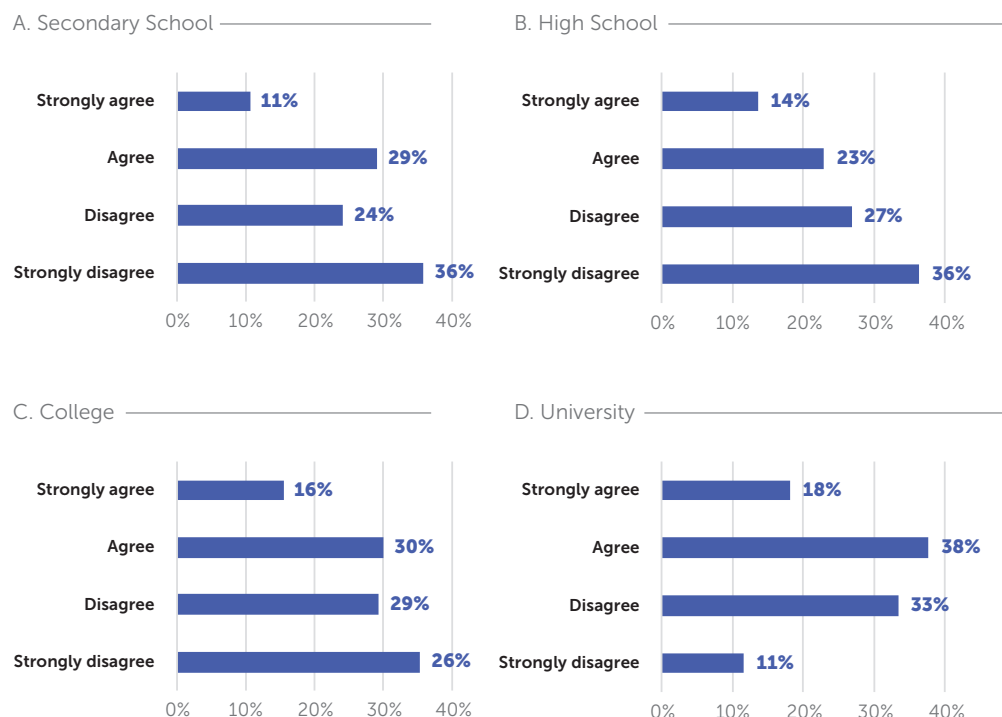
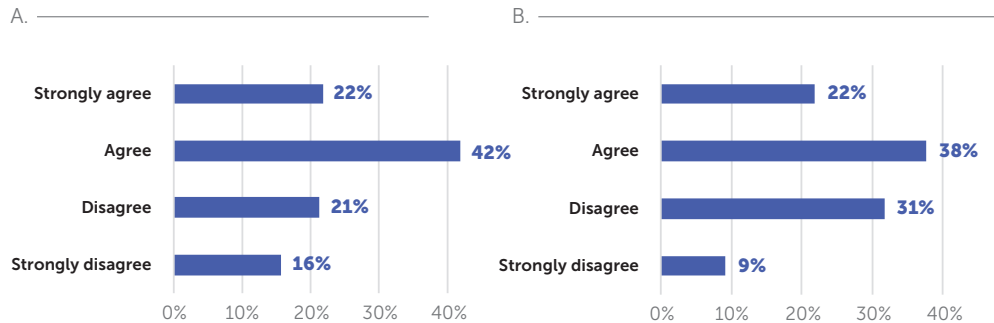
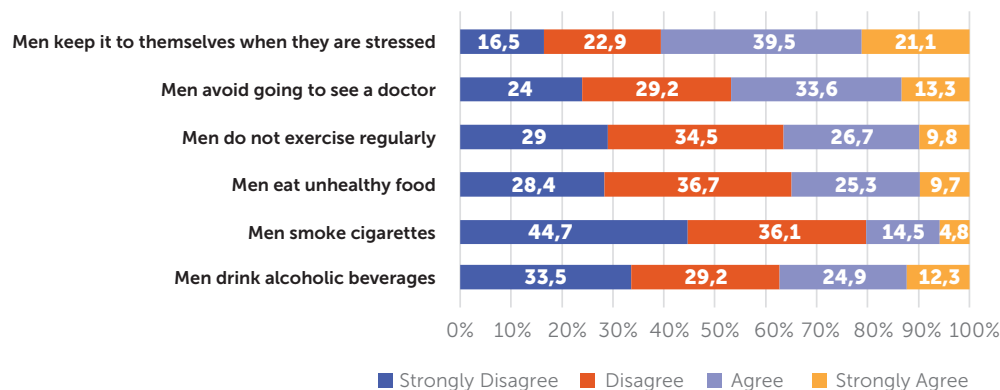


Figure 31. Men Keep It to Themselves When They Are Stressed: Respondents Who Had Completed (A) High School and (B) University



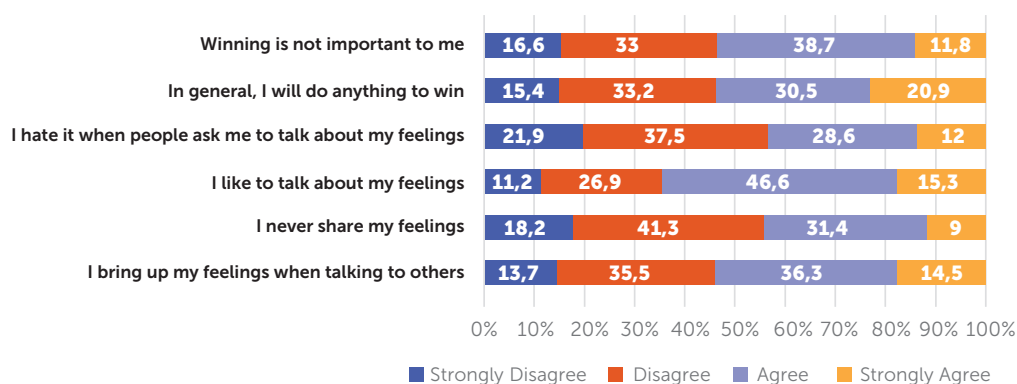
Regarding male gender norms related to health care, approximately 47 percent of respondents agreed or strongly agreed that men avoid going to see a doctor, 36.5 percent that men do not need to exercise, and 35 percent that men eat unhealthy food (figure 32). Smoking was not seen as a very masculine behavior, with only 19.3 percent of participants agreeing that “men smoke cigarettes.” Similarly, fewer than half the cohort agreed that alcohol consumption was for men, with only 37.2 percent of participants agreeing that “men drink alcoholic beverages.” Approximately 61 percent men agreed or strongly agreed that “men keep it to themselves when they are stressed.”

Figure 32. Male Gender Norms Related to Health Care



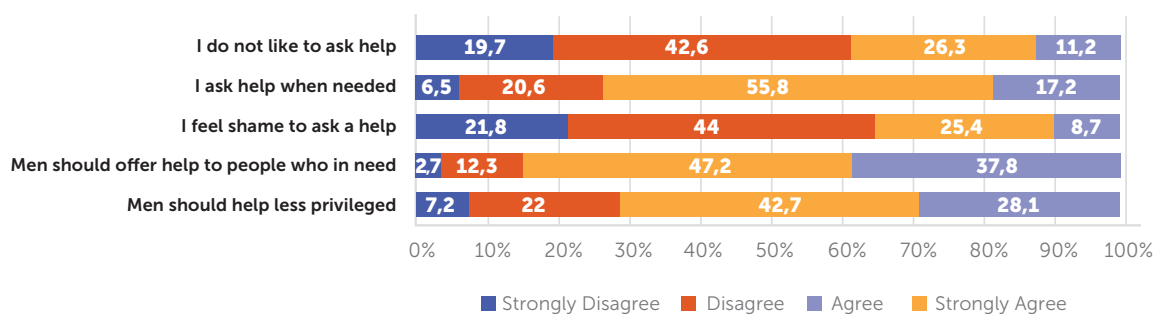
Approximately 62 percent of respondents agreed or strongly agreed that they like to talk about their feelings (figure 33), although approximately the same percentage, in a previous section, replied that men keep it to themselves when they are stressed. It may be that men share their feelings with others but tend to keep it to themselves if they are stressed and that some behaviors, such as suppressing negative feelings, are typically male. Most Mongolian men smoke and drink, but neither of these behaviors was considered as meeting the standards of masculine norms. Approximately half (51.4 percent) said that they will do anything to win, and 49.6 percent said that winning was not important to them.

Figure 33. Masculine Gender Norms: Emotional Control



Eighty-five percent of respondents replied that men should help others, 70.8 percent that men should help the less privileged, and 73 percent that they ask for help when they need it (figure 34), although 34.1 percent said that they feel ashamed or bothered when they ask for help. The interview excerpts below illustrate attitudes about male gender norms.

Figure 34. Men's Attitudes About Altruistic Behavior and Asking for Help



For me, I take care of my family's health, education, and what is needed for our child to receive proper education. We try to be active in society; after all, we have to fix ourselves first to fix the country.

A man has responsibilities in all aspects, including income and occupation. This is probably dangerous when the man is performing high-risk, dangerous jobs. Everyone will get stressed if they cannot fulfill their job. This makes it easier for them to get sick.

Men have a central role and responsibility in life, but many women have the same level of responsibility.

They carry the family and the household. It is all because we are incapable of breaking the stereotype, for example, stating that men should lead the household and make decisions. Furthermore, when the household is doing badly, the man is blamed, and when the house is dirty, the woman takes the blame for it. Financing a family is hard work. When men cannot earn enough, they try to do a part-time job aside from their main job. In some cases, they opt for illegal and criminal activities, which makes the problem even worse. Men commit most crimes in this country. This in the end connects back to family income problem. This all boils down to men's role of carrying the family and providing. If his child is hungry, even if he has to steal, he will have to fulfill his duty. If they cannot meet these expectations, they start stressing out. Having a sloppy home or not having one at all, no car or a broken-down car, and a wife not wearing good clothes can put a man under psychological pressure. If men cannot overcome this problem, they stress over it, and it can lead to depression. In the meanwhile, they start drinking and sabotage his health. Either way, it's definitely bad for their health (whether you work longer hours, take fewer breaks, consume alcohol, or do criminal activities).

It is okay if men's household partners are understanding of the situation, but if the wife complains about his state, puts him down and calls him useless, and blames him for not earning enough (by comparing him to other family members), it turns him into a victim of abuse, unknowingly. Mongolian men do not think this is abuse and think it is justifiable for women to say the above.

This is due to stereotypes. Women should clean the house and take care of the children, and men have to work outside. As for me, as long as there is a family, I think both parents should do both jobs together. As for a man's role, he plays a major role in maintaining the home, keeping it safe, protecting his loved ones, financially providing, and caring for his children. At a family and social level, a man's role affects his life expectancy.

Their roles are way more. Because to be the head of the household, one has to be intelligent, hardworking, and willing to carry the load. But lately this is fading away.

A man has to do chores outside the house, chopping firewood and herding livestock. I don't think this affects their health. A man's body is accustomed to the jobs they need to be doing. Therefore, they should just do it. A man's ability to herd sheep, chop wood, and herd animals was created by God.

When it comes to getting a job, it is very hard, especially if you're from a rural area. In addition, they are evaluated by age and appearance, on top of the profession they have. There is also an irresponsible quality in men. After working and making money, they disappear and drink alcohol.

Men have a key role to play in the well-being of their families. They do a lot of work within this framework. They build their family finances, raise their children, and maintain their jobs. All this can only be done through a lot of work. When trying to find ways to generate income in the family, they lose time to spend on their health and personal interests. If you have a good income, you will spend more time with your family and children.

In our situation, it is difficult, if not impossible, for a man to fulfill his role as a man without compromising his health.

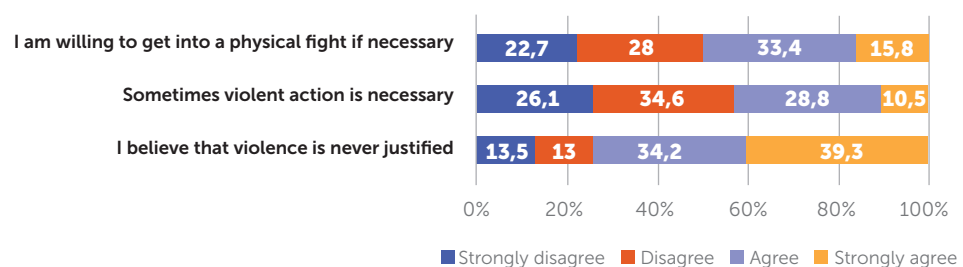
As society prefers women to men, men's responsibilities and participation are diminishing.

Men stay outside all day and get cold once they come home. When there is no housewife, a man burns a short-lived fire, makes brown tea, cooks easily made food, and sleeps. They usually eat something bad. Men are generally stubborn and eat whatever comes across their path, and they do not eat if they do not find anything. That is probably why they live shorter lives.

The interview responses confirm the responses to the questionnaire that masculine gender norms exist and have direct and indirect effects on men's health.

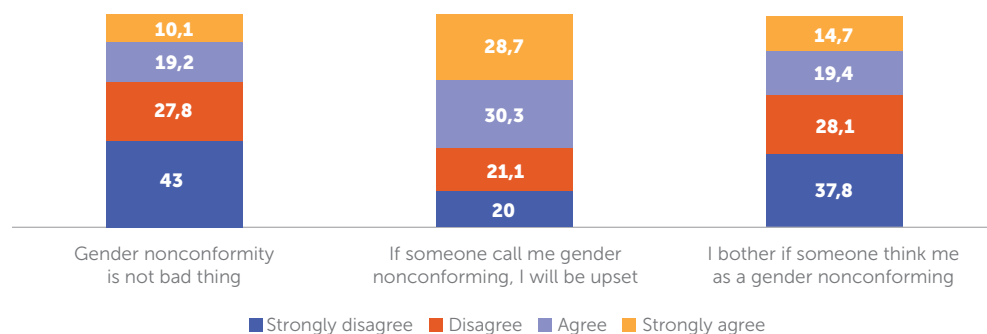
For the question about whether violence is ever justified, 73.5 percent of respondents believed that violence is never justified (figure 35), but 49.2 percent responded to another question that they would get into a physical fight if necessary. It is likely that men intellectually think that violence is never justified, or they do not want to display violent behavior, but when it comes to a physical fight, if it feels necessary, they do. For example, according to police information on crimes as of 2018, in Ulaanbaatar, 83.7 percent of people involved in crime were men. Nine hundred forty-five rapes were reported from 2015 to 2017 in Mongolia, of which 59 (48.5 percent) were in Ulaanbaatar.⁹ Six hundred forty-two cases of gender-based or domestic violence were recorded in 2017 (430 physical, 142 nonphysical, 8 rape, 8 economic); most were alcohol related.¹⁰

Figure 35. Men's Violent Behavior



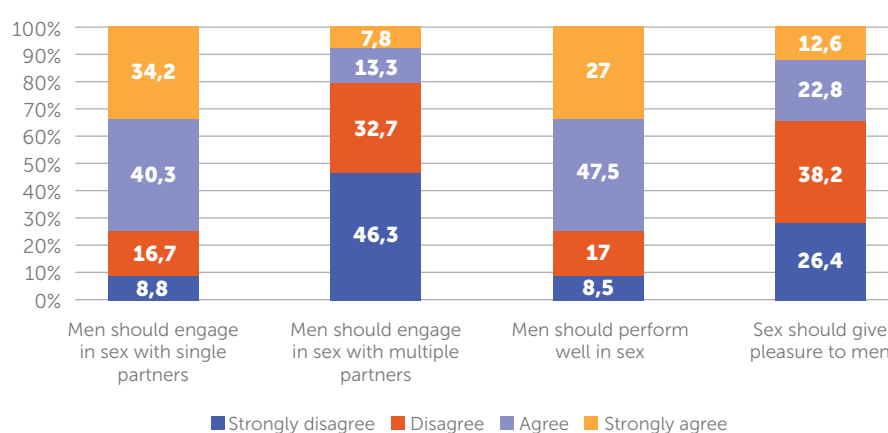
Almost one-third (29.3 percent) of respondents did not think that being gender nonconforming (lesbian, gay, bisexual, transgender) was bad, but 59 percent responded that, if someone called them lesbian, gay, bisexual, or transgender, they would be upset, and 34.1 percent said that they would be afraid of being thought to be gender nonconforming (figure 36). This indicates that a small proportion of men accept gender nonconformance but that the general tendency was toward lack of acceptance.

Figure 36. Heterosexual Self-Presentation



Three-quarters (74.5 percent) of men said that they only have sex with someone with whom they are in a stable relationship, whereas 21.1 percent said that they want to have sex with many people (figure 37). Three-quarters (74.5 percent) of respondents agreed that a man should perform well in sex, and 35.4 percent believed that it is important for a man to experience pleasure during sexual intercourse. According to a study conducted in 2017 (MonFemnet 2013), 59.6 percent of sexually transmitted infections were in women. Of the 250 officially registered cases of HIV and AIDS in Mongolia, 79.4 percent are from Ulaanbaatar. Men accounted for 81 percent of all HIV and AIDS cases, of whom 48.2 percent were homosexual, 31 percent were bisexual, 19.8 percent were heterosexual, and 1 percent were transgender.

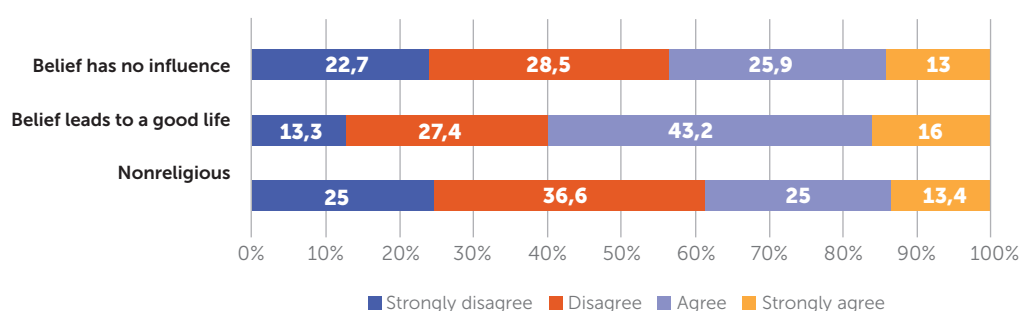
Figure 37. Attitudes of Men Toward Sex



Other aspects related to risky health behaviors

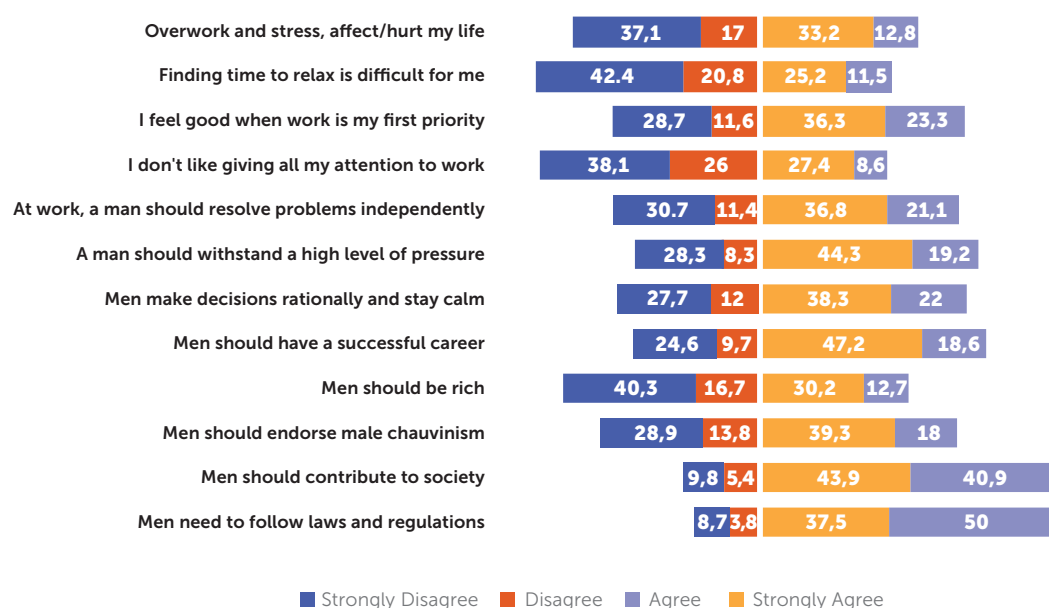
More than one-third (38.4 percent) of respondents were nonreligious; 38.9 percent felt that belief does not have any influence on them, although 59.2 percent felt that belief can lead to a good life (figure 38).

Figure 38. Religious Beliefs



Most (87.5 percent) respondents agreed or strongly agreed that men need to follow laws and regulations and that men should contribute to society (84.8 percent) (figure 39); 63.5 percent of respondents replied that men should withstand a high level of pressure, 60.3 percent that men should stay calm and make decisions rationally when facing big decisions, 65.8 percent that men should have a successful career, and 59.6 percent that they feel good when work is their first priority.

Figure 39. General Questions on Role of Men in Society



Eighty-five percent of respondents agreed that men should be role models for their children, be gentle and patient with their romantic partners, take care of the older generation, and spend time with their children; 27.2 percent answered that men do not need to engage in housework, 27.4 that family members' opinions and feelings are not important to men, and 42.4 percent that men should be more educated than women. These responses indicate that they understand their family roles and responsibilities but that inherited knowledge and tradition still influence men that they should be higher than women and should be the leader of the family.

Three-quarters (74.2 percent) of men do not take care of themselves, and 73.5 percent feel that risky behaviors such as alcohol consumption, smoking, and poor dietary and life habits influence the short life expectancy of men. According to the surveyed men and professionals, the reasons for short life expectancy are not only physical and biological features, but also social stereotypes that deter young men from becoming educated and obtaining information about their health and safety. The interview excerpts below illustrate this.

The early death of men depends on the individual. Even the living conditions of men and women are different. In addition, I think there is a societal influence. For example, injuries are more common in men than women. It's not just like a man and a woman are walking at the same time and the man gets hurt. The quality of life often deteriorates as a result of injuries, accidents, and even loss of life while participating in risky work and being under social influences. Studies show that men's illnesses occur at the same time as women's. Before the age of ten. This is directly related to the bad habits they have in life. Biologically, hormonal activities are the same for men and women, with a beginning and an end. Men don't know it; women don't know it. ... For example, men's inability to vent their problems and keep it to themselves may be due to hormonal effects.

... she is the girl in the family, so let's educate her, but the man is told not to get an education or to do menial work. And there are a lot of things that can go wrong, from risky situations to injuries. Perhaps this is because such traditional and general attitudes are commonly found. At first glance, these issues may seem like a family affair, but society as a whole is having the same issue. So it's hard to say it's a social effect, but I think there's a reason to say so.

Ensure that children, both male and female, receive equal and inclusive education, especially health education from a young age. Old traditional beliefs such as "boys do not need education" have an adverse effect on their well-being and livelihood. We have to make sure to keep it fair.

Life expectancy of men is lower than women's in developed countries due to lifestyle and diet. In our tradition, we used to eat less meat in the summer, but today we eat meat day and night. In addition, alcohol and tobacco use affect men's life expectancy very badly. I guess this is something unique to men. In developed countries, elementary schools have programs to take care of health. But we lack education in this area. Men only come to see me when they're sick or suffering.

A warm family atmosphere is very important. When an individual has matured into an adult, they hurry to contribute to the country. When a wife respects her husband and creates a warm environment, men's health issues and anger will decrease. Then you can live longer. The most important thing is to give the right upbringing from an early age.

Husbands and wives often use alcohol and tobacco to cope with the anger and stress formed because of not understanding each other. So, it is important for a husband and wife to have a good understanding of each other's work and duties.

Our soum has a population of 3,335 men and 3,600 women. Our soum school has 1,385 children. The school has the largest number of children in Zavkhan aimag. More than 60 percent are girls. The boys become herders and work on livestock just because they are men. Families who have two children – a boy and a girl – send the girl to school and the boy to herd livestock.

Probably because of a man's responsibility to take care of his family and the pressure that comes with it. Secondly, when women give birth to a child, it seems like their health rejuvenates.

Physiologically, a woman has more blood than a man, and women's blood regenerates more quickly. There are also many issues, such as men's recklessness, carelessness, due to the responsibilities of being the head of the household and being overwhelmed by its hardships.



Part 5: Conclusion

This research comprised surveys (2,353), interviews (37 volunteers), and focus groups (4) with men aged 18 and older in Eastern, Western, Khangai, and Central regions and from nine districts of Ulaanbaatar. Thirty-seven men from four *aimags* and nine districts of Ulaanbaatar participated in interviews. Focus groups were conducted with men aged 18 to 25, local health and police officers, and unemployed men. Of the men interviewed, 27 were from rural areas and 14 from Ulaanbaatar; they had an average age of 45.

The study methodology focused on attitudes and perceptions related to risk-taking and healthy-living behaviors, and masculine gender norms. The study examined gender norms and their relationship to an individual's propensity to engage in risk-taking behaviors in the Mongolian context. Masculinity was defined as a set of stereotypic beliefs and behaviors that men adopt to conform to their dominant culture. It is believed that stronger conformity to masculine gender norms reinforces beliefs that are conducive to poor health outcomes.

Survey questionnaires were developed based on pretested models of risk-taking decisions and risky behaviors (Lundberg and Shapira 2014). The survey consisted of 95 questions on topics that influence men's health, such as demographic characteristics, employment, health, risky behaviors, gender norms, and masculinity. Focus group discussions and interviews explored social factors, traditional norms, and services that influence the life expectancy of men in Mongolia. They were also designed to gain insight into what has worked and what more could be done to address risky health behaviors.

The research team encountered several difficulties. Because of the complexity and length of the survey, only 22 of 200 online surveys were completed. In the future, complex surveys should not be deployed online unless they are targeted to an organization at a smaller scale. The field survey coincided with the parliamentary election campaign period, which necessitated postponement of the survey until the end of the election. Conducting the survey during a vacation period may have influenced the results. Men may also be unlikely to complete long questionnaires.

Research Question 1: What factors most affect the large difference in mortality between men and women, and which of these factors are behavioral?

Risky health behaviors — smoking, alcohol consumption, diet and exercise, seeking medical care, and risk-taking behaviors — were identified as the primary cause of the large difference in mortality between men and women. Many men were found to smoke and drink, and many did not get enough exercise and had poor dietary habits, which could affect their health and life expectancy.

Tobacco and alcohol use are major risk factors for CVDs, such as heart attack and stroke, which are the leading causes of death. Sixty percent of men aged 18 and older consumed alcoholic beverages. Men aged 26 to 39 were most likely to drink (75.7 percent reporting being current drinkers), although these high percentages did not decline much with age, indicating that drinking is a life-long challenge for Mongolian men.

Most men surveyed agreed that men die earlier because of their lifestyle. Lifestyle is often rooted in men's diet, reluctance to obtain health care, risky health behaviors, personal indifference, and the social stereotype of men doing hard manual work. Interview results complemented the survey results suggesting that risky health behaviors are the crucial factor driving the large difference in mortality between men and women.

Most respondents considered their risky health behaviors to be related to their workplace or occupation. More specifically, men engage in more laborious heavy-duty work in risky environments and often lack knowledge of safety procedures at work. This is also related to understanding and social norms that men have more responsibility as the main earner of the family. Most respondents expressed that low income, unstable employment, and insufficient work caused stress, which sometimes caused men to participate in unhealthy behaviors, such as smoking and drinking and generally poor self-care.

Research Question 2: What are key factors in men's decisions to engage in risky behaviors?

Social norms influence men from an early age, as they learn about smoking and drinking, often through friends. They may start drinking to display their masculinity among colleagues and friends. Examples of these social norms, such as "Men must drink at least three shots" or the practice of parents preparing the smoking set for their children when they reach adulthood, are common in Mongolia, but developing drinking or smoking habits frequently has much to do with individuals' decisions regarding their behavior. Exercise and dietary behaviors were different in urban and rural areas, but it all depends on individual willingness, attitude, and knowledge.

Gender norms and poor self-care also influenced likelihood of seeing a doctor and undergoing medical examinations. Sixty percent of men aged 18 to 69 only seek a doctor's help if they experience pain or they absolutely must. This is more related to gender norms and behavior than availability of hospitals and medical services. In addition, obtaining medical services, such as registering and waiting for a visit, is time consuming, which is disagreeable to men. Cost was also a factor influencing men not to receive medical care.

To verify these findings, a correlation analysis was run to test the hypotheses by examining the correlations between men's beliefs about gender and their risk-taking behaviors. The hypotheses were that men who hold stronger beliefs in masculine gender norms will be more likely to engage in behaviors (e.g., smoking, drinking) that put their long-term health at risk and

that men who hold strong beliefs in masculine gender norms will have a greater propensity toward risk-taking behavior. To test the first hypothesis, each participant's level of actual engagement in risky health behaviors was correlated with scores on an abridged version of the Conformity to Masculine Norms Inventory. To test the second hypothesis, participant likelihood of participating in risk-taking behaviors was correlated with scores from the Conformity to Masculine Norms Inventory.

Both correlations were highly significant ($P < .001$), which meant that the relationship was strong (figures 40 and 41). This is in line with other research that has found that traits of hegemonic masculinity correspond with risk-taking behavior and lack of care for one's health. This also confirms the research hypotheses; Mongolian men who have stronger beliefs in hegemonic masculine norms are less likely to take care of their health and more likely to take risks with their health. Masculine identity and gender roles may be pushing men to make decisions that have negative long-term effects on their health (appendix B).

Figure 40. Regression Analysis: Risky Health Behaviors vs Adherence to Masculine Gender Norm

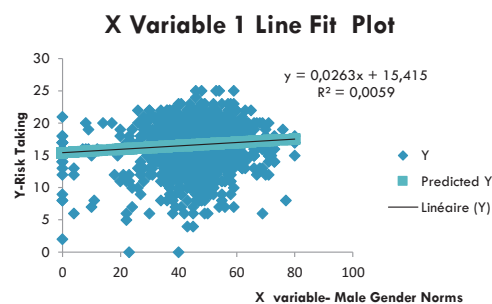
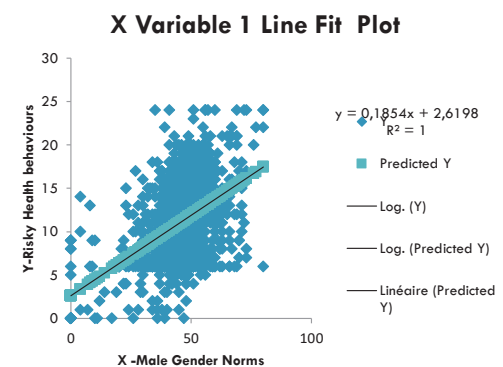


Figure 41. Regression Analysis: Risk-Taking and Adherence to Masculine Gender Norm



The results of survey, in which men agreed that men die earlier because of lifestyle and behavioral factors, corroborated these findings. Lifestyles are often rooted in diet, health care, bad habits such as smoking and drinking, personal indifference, and the need for men to do hard work. Although some social and environmental lifestyle choices are associated with masculinity, most men believe that making good lifestyle choices is a personal matter. Men may not be aware that they are subscribing to male stereotypes to be in conformity with others.

Interview results highlighted male attitudes that led to risky behaviors:

- i. Men's bad habits and risky behaviors harm their health and economic well-being, but men are reluctant to take decisive steps to change.
- ii. Family instability is the biggest problem for men in their 30s and 40s; for young families, moving away from the family for work or education and working long hours can have a negative effect on family relationships.
- iii. Men are most dissatisfied with the low value of their labor, which is due to the lack of stable jobs and guaranteed income and income that does not cover their living expenses; overwork can lead to negative consequences, such as taking risks.

- iv. Mongolian men generally prefer to be aware of their duties and responsibilities and fulfill them to the fullest; this is directly related to traditional notions, although the perception that they are not able to fulfill this role in some way is due to external (family or social) influences rather than personal beliefs.

The role of head of the household comprises many roles and responsibilities, and the most difficult for men is to ensure the financial security of their families because there are not enough jobs in Mongolia, the value of labor is low, and wages are not enough to cover expenses. This leads to long working hours, with men pursuing additional part-time work, which keeps them away from their families for long periods of time and in some cases becoming involved in crime and violence. This pressure gradually leads to the feeling that a man is not fulfilling his responsibilities to society and the family, which puts pressure on his health, especially his psychological well-being. This is a source of stress and depression. In such cases, men believe that it is up to them to decide how to address the problem, although the majority of respondents indicated that drinking alcohol is a way to relax, which can lead to serious consequences such as alcoholism, divorce, and domestic violence.

The study results are in line with those of other studies in that adherence to gender norms increases risk for men and that most men have a desire to embody the “masculine nature” of traditional customs and stereotypes; 87.5 percent of respondents said that a man should obey the law, 84.8 percent that a man should do something useful for society, and more than 85 percent that a man should be a role model to his children, be kind and patient to his wife, be loyal to his friends, take care of the elderly, and spend time with his children. Traditional and stereotypical perceptions of men’s roles and responsibilities in the family and society tend to change with age; younger men have ideas about equal responsibilities, and their perceptions are diverging from traditional norms.

Research Question 3: How can behavior-change interventions with respect to male well-being be incorporated into the next phase of the SLP?

Reducing men’s risky health behaviors has become a global goal in the 21st century. Much research has been conducted to target men for whom the provision of education and health services may not be sufficient to increase life expectancy. For example, men living in isolated rural communities who are unaccustomed to asking for help are unlikely to begin doing so just because a medical clinic is built near their home. Solutions must address harmful male social norms and expectations and not be seen as an outside force trying to shape men into something they are not.

The following actions should be taken to change men’s lifestyles, particularly to reduce the factors that harm their health and, consequently, decrease their life expectancy:

- i. **Shift the stereotype that a man must bear the heaviest burden within the family and society** toward the concept of gender equality
- ii. **Increase the value of men’s labor and improve working conditions**
- iii. **Enhance men’s knowledge of and skills regarding health, hygiene, occupational safety, family, and reproduction** through information, education, and communication programs tailored to varying levels of knowledge, occupations, urban versus rural locations, and age
- iv. **Increase access to specialized male reproductive health services** in public and private hospitals
- v. **Enforce laws that prevent the sale of alcohol and tobacco to minors** and decrease the blood alcohol concentration that constitutes driving under the influence.

Although adolescent boys were not targeted in the survey, implementing measures to reduce harmful behaviors in this age group will also be important. Adolescents living in soums are at much higher risk of not being enrolled in school than adolescents outside of soums (UNICEF 2016). Furthermore, job opportunities for out-of-school youth in rural areas are extremely limited, leading to high inactivity. This is an area that the health and education ministries in Mongolia may need to explore further.

These recommendations should be implemented in several intersectoral areas, such as education, health, and social security, rather than at the level of one sector or organization, by developing policies and programs for men and improving the legal environment for taking action. Local government and professional organizations said that training and advocacy on topics such as nutrition, exercise, health screening, and domestic violence were conducted in the community, and that men were welcome, but the majority of respondents said that no measures have been taken to change men's risk-taking behaviors and lifestyles, although men are unlikely to participate voluntarily in such activities, so well-planned, coordinated interventions are necessary to address these challenges.

Distinct results in traditional masculine behaviors include safe sexual intercourse, wearing seat belts, and reducing alcohol consumption. A relatively high percentage of men (75 percent) practiced these behaviors. This was attributed to the fact that information had been disseminated appropriately on these issues and that there was a legal environment and accountability system for wearing seatbelts and alcohol use reduction that could influence the practice.

Brief interventions have been found to be effective in changing male health behaviors over a short timeframe, particularly damaging behaviors such as drinking and smoking, although this technique was more effective when programs included family-oriented outcomes. Mongolian men report the pressure of being the "breadwinner," and themes regarding family frequently arose in the qualitative interviews. The revelation that men use alcohol and nicotine to cope with family pressures indicates a need to address men's ability to support their families. This is the first indicator of where resources from the SLP3 should be directed: to support men in addressing the pressures of balancing work and family demands.

Interventions of this type are usually conducted with people who are accessing health services, such as medical clinics and hospitals. This helps identify relevant participant groups and is essential to allocating resources effectively. If men are not open to accessing these services or are uninterested in changing their lifestyle, brief interventions will prove ineffective for changing behavior. The Men's Shed program aims to generate all-male communities by supporting social connection through activity-based learning. In various English-speaking countries, these programs have been shown to improve men's well-being while also allowing for shifting cultural norms, particularly regarding health behaviors.

Recent evidence indicates that brief interventions can be applied within these contexts because the sheds are often a meeting place for men. Further research should examine what structures already exist in Mongolian society. Specifically, spaces that men are given responsibility for and leadership positions in, through which they may start conversations regarding healthy behavior and lifestyle choices, are the most effective. To address the cultural aspects of male health behaviors, the SLP3 should seek to cultivate a similar space for men in Mongolia. Brief intervention projects should be integrated with these spaces. In this way, the support that men need comes to them, rather than hoping that they will go against their instincts and seek the support themselves.

Because the SLP3 is LDF centric, further analysis is needed to establish the link between the above interventions and LDF- and SLP3-related activities. Two areas will require attention in such an analysis.

- i. **Participation of men in the context of the LDF.** Because the capacity-building and awareness activities under the SLP3 are to be conducted largely with the aim of increasing participation of men and women in the LDF process, with the participation of men currently be lagging, it is recommended that the upcoming mid-term study of the SLP3 examine this. This up-to-date information on the level of participation of men in the LDF process, as well as challenges to and opportunities for engaging men in those processes, can provide an opportunity to incorporate interventions identified in the report into local bagh- and soum-level initiatives (e.g., dedicated services on men's health included in the one-stop shops of public services, targeted information sessions during bagh and soum meetings).
- ii. **Identification of investment needs for addressing men's risky health behaviors.** Given that the vast majority of SLP3 funds are spent in the form of co-financing for the LDF, to be spent for capital investment projects, investment needs that may help address men's health and lifestyle should be identified. For this, on a pilot basis, the project could have some soums organize model focus group discussions and bagh meetings in which men's health and lifestyle concerns are raised as priority challenges to be resolved. The type of investment project suggestions for potential LDF financing may emerge from the discussions.

Regarding participation and the need to build capacity for citizens to identify problems they are facing and suggest solutions that can be financed under the LDF, policy recommendations could be made to influence the list of eligible expenditures under the LDF. These brief community interventions, highlighted above, can be piloted under the SLP3, but expanding and sustaining them beyond the project may be challenging, given that the current legal framework for the LDF does not consider recurrent expenditures for activities to facilitate conducting the eligible LDF processes. The regulatory aspects of the LDF will need to be strengthened to finance subprojects that are not of a strictly capital investment nature but are targeted at resolving social challenges (e.g., those related to men's health and lifestyle) and covering costs of awareness raising, facilitation, and capacity-building activities related to the LDF processes. The findings of this report can inform such policy recommendations.

Finally, sharing the final report with the NCGE will be important. The NCGE is preparing an update to the National Action Plan on Gender Equality and implementing a workplan to reduce the GGLE (2020-2022), which this report can feed into. Sharing English and Mongolian-language versions of the final report with the NCGE will be a first step in disseminating to a wider group of relevant government entities. Although the NCGE has a mandate to develop, guide, and monitor implementation of policies, programs, and special measures on gender equality, implementation of the various policies and programs on life expectancy is the responsibility of other ministries and agencies. Organizing a subsequent national dissemination event will be important to share evidence-based findings; identify action; and seek coordinated, cross-sectoral interventions, which is important for addressing the GGLE in Mongolia.

Endnotes

1. In 2018, the most prevalent causes of death were cancer and cardiovascular disease (83.1 percent), followed by other accidents (9.1 percent), road accidents (3.0 percent), and suicide (2.6 percent).
2. Working age was defined as 15 to 59 for men and 15 to 54 for women.
3. A summary of the main determinants of risky behaviors is laid out in Lundberg and Shapira 2014.
4. <https://genderjustice.org.za/>
5. The Integrated Budget Law, adopted in 2011 and effective in 2013, established LDFs as a formula-driven intergovernmental transfer mechanism. The funds provide predictable, sizeable amounts of money to support local capital investment in public infrastructure and services at the soum level. The law specifies that local governments must use fund allocations in accordance with citizen priorities as identified in a robust process of community participation in budget preparation and execution.
6. Administratively, Mongolia is divided into Ulaanbaatar and 21 *aimags* (provinces). *Aimags* are further divided into soums (counties) and baghs (villages). Provincial capitals are called aimag centers, and county seats are soum centers.
7. http://1212.mn/tables.aspx?tbl_id=DT_NSO_0300_002V1&SOUM_select_all=0&SOUMSingleSelect=_0_1_2_3_4_5&YearY_select_all=0&YearYSingleSelect=_2019&viewtype=table
8. http://1212.mn/stat.aspx?LIST_ID=976_L03
9. Statistics of the General Council of the Judiciary, 2015-2017.
10. <http://gender.gov.mn/backend/files/XInm9yXJOeTXVIS.pdf>

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Appendix 1. Questionnaire

Section 1. Participant information

Q1-Q7 Demographic Questions	What is your age?	Tick one only 1. 18-25 2. 26-39 3. 40-54 4. 55-70 5. 70+
	What is your gender?	Tick one only 1. Male 2. Female 3. Other
	Which Aimag do you currently live in?	Tick one only 1. Sukhbaatar 2. Ulaanbaatar 3. Khentii 4. Zavkhan 5. Arkhangai
	Do you mostly live in a capital city, Aimag center, soum center or bag?	Tick one only 1. Capital city 2. Aimag centre 3. Soum center 4. Bag
	How long have you been living in this area?	Tick one only 1. Less than 3 months 2. Up to 1 year 3. More than 1 year
	Are you married	yes/no
	What is your highest level of education that you have completed?	Tick one only 1. No formal schooling 2. Less than primary school 3. Primary school completed 4. Secondary School completed 5. High school completed 6. College Completed 7. University Completed 8. Post Graduate degree

Q1-Q7 Demographic Questions	Which of the following best describes your main work in the last year?	Tick one only 1. Governmental organization 2. Non governmental organization 3. Self employed 4. Non paid 5. Student 6. House work 7. Retired 8. Unemployed (able to work) 9. Unemployed (unable to work)
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Section 2. Risky health behaviors

Reverse-scored questions are **highlighted in blue**

Q8* - Smoking	Do you currently smoke? (If yes, go to Q2. If no go to Q3)	1. Yes 2. No
Q9* - Smoking	If yes, Do you smoke daily?	1. Yes 2. No
Q10* - Alcohol	Have you consumed alcohol (*such as beer, wine, vodka, fermented milk) within the last year? (If yes, go to Q4. If no, go to Q5)	1. Yes 2. No
Q11* - Alcohol	If yes, In a typical week, how frequently do you have at least one drink?	1. Never 2. Once a week 3. 2-4 times a week 4. 5-6 times a week 5. Every day
Q12 - Exercise	Do you do any physical exercise, at work or in your recreation time, with the intention to keep healthy?	1. Yes 2. No
Q13* - Diet	In a typical week, how often do you eat fruit or vegetables?	1. Never 2. Once a week 3. 2-4 times a week 4. 5-6 times a week 5. Every day
Q14 - Help Seeking	If you find yourself stressed or under pressure, do you reach out to friends or family for support?	1. Yes 2. No
Q15 - Help seeking	How often do you visit a doctor, hospital or medical professional for a check up?	1. Never 2. I go if I have to 3. I go if I am unwell 4. Once a year 5. More than once a year

*Questions adapted from Mongolian Steps Survey on the Prevalence of Noncommunicable Disease Risk Factors 2006 (Appendix 2).

Section 3. Risk-taking

Inventory	Instructions	Questions
Q16-Q21 Risk-taking	<p>For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior if you were to find yourself in that situation.</p> <p>1 = Highly unlikely 2 = Unlikely 3 = Likely 4 = Highly likely</p>	<p>1) Drinking heavily at a social function. 2) Engaging in unprotected sex. 3) Driving a car without wearing a seat-belt. 4) Riding a motorcycle without a helmet. 5) Sunbathing without sunscreen. 6) Walking home alone at night in an unsafe area of town.</p>

Questions adapted from Appendix 4: DOSPERT-RT - Health/Safety Subscale.

Section 4. Male gender norms

Reverse-scored questions are **highlighted in blue**

Inventory	Instructions	(Item Number) Survey Questions
Q22-27 Views on risky health behavior	<p>Below are a series of general statements about how people might think, feel or behave. Please indicate how much you agree or disagree with each statement."</p> <p>1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree</p>	<p>In general:</p> <p>1) Men drink alcoholic beverages 2) Men smoke cigarettes 3) Men eat unhealthy food 4) Men do not exercise regularly 5) Men avoid going to see a doctor 6) Men keep it to themselves when they are stressed</p>
Q28-50 Masculine gender norms Questions adapted from Conformity to Masculine Norms Inventory (CMNI)	<p>Below are a series of statements about how people might think, feel or behave. Please indicate how much you agree or disagree with each statement."</p> <p>1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree</p>	<p>Emotional Control</p> <p>(13r) I bring up my feelings when talking to others. (18) I never share my feelings. (25r) I like to talk about my feelings. (45) I hate it when people ask me to talk about my feelings.</p> <p>Winning</p> <p>(1) In general, I will do anything to win. (33r) Winning is not important to me.</p>

Inventory	Instructions	(Item Number) Survey Questions
Q28-50 Masculine gender norms Questions adapted from Conformity to Masculine Norms Inventory (CMNI)	<p>Below are a series of statements about how people might think, feel or behave. Please indicate how much you agree or disagree with each statement."</p> <p>1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree</p>	Sex (12r) I would only have sex if I was in a committed relationship. (21) I would feel good if I had many sexual partners.
		Violence (19) Sometimes violent action is necessary (30) I am willing to get into a physical fight if necessary
		Self Reliance (3) I hate asking for help. (10r) I ask for help when I need it. (43) It bothers me when I have to ask for help.
		Risk Taking (8) I enjoy taking risks. (28) I frequently put myself in risky situations.
		Control over Women (20) In general, I control the women in my life. (9) Women should be subservient to men.
		Primacy Of Work (23r) I don't like giving all my attention to work. (31) I feel good when work is my first priority.
		Heterosexual Self-presentation (5r) Being thought of as gay is not a bad thing. (14) I would be furious if someone thought I was gay. (24) It would be awful if people thought I was gay.

Scale adapted from Conformity to Masculine Norms Scale (Hammer, 2018)

----- END OF SURVEY -----

Appendix 2: Summary Output

Summary output - hypothesis 1

Regression Statistics							
Multiple R		0.07671483					
R Square		0.005885165					
Adjusted R Square		0.005462318					
Standard Error		3.030508335					
Observations		2353					

ANOVA							
	df	SS	MS	F	Significance F		
Regression	1	127.822	127.822	13.91793272	0.000195		
Residual	2351	21591.54	9.183981				
Total	2352	21719.36					

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	15.41482193	0.331284	46.53052	0	14.76518	16.06446	14.76518	16.06446
X Variable 1	0.026290138	0.007047	3.730675	0.00019549	0.012471	0.040109	0.012471	0.040109

Summary output - hypothesis 2

Regression Statistics							
Multiple R		0.420902					
R Square		0.177158					
Adjusted R Square		0.176808					
Standard Error		3.544052					
Observations		2353					

ANOVA							
	df	SS	MS	F	Significance F		
Regression	1	6357.678333	6357.678333	506.1722602	1.1103E-101		
Residual	2351	29529.27874	12.56030572				
Total	2352	35886.95708					

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.619822	0.387422838	6.762177794	1.70922E-11	1.860096178	3.379548	1.860096	3.379548
X Variable 1	0.185413	0.008241194	22.49827238	1.1103E-101	0.169251859	0.201573	0.169252	0.201573

