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ALCOHOL, OTHER SUBSTANCE USE AND RELATED HARMS AMONG YOUNG PEOPLE IN THE SOLOMON ISLANDS

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It brings me great pleasure to inform my colleagues in government, corporate and social development sectors, that Save the Children Australia has conducted the first study regarding the use of alcohol among youth in Solomon Islands.

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Violence against women and children, and alcohol use is strongly interconnected in Solomon Islands. This study is aimed at providing useful insights for building new programs to challenge issues pertinent to the implications of alcohol use and violence. This is the first ever study regarding this issue, to be undertaken and successfully completed. I am proud to be part of the team at Save the Children, responsible for turning this otherwise contentious issue into a tangible process and project. I heartily encourage my colleagues in Solomon Islands and other Melanesian countries, to take a moment to read this valuable piece of information and to reflect honestly and without bias on any parallels that can be drawn in your own country and communities.

Shiv Nair

Country Director

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Solomon Islands

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LIST OF ACRONYMS

%SM	Percentage of scale maximum (units)
ANCD	Australian National Council on Drugs
AusAID	Australian Agency for International Development
BCE	Before Common Era
ESSI	ENRICHD Social Support Inventory (Scale)
FOSIY	Federation of Solomon Islands Youth
GEM	Gender Equitable Men (Scale)
GSHS	Global School-based Student Health Survey
HIV	Human immunodeficiency virus
IDU	Injecting drug use
KAP	Knowledge Action Practice ('participatory action research method')
MAVAW	Men Against Violence Against Women (previous program)
MHMS	Ministry of Health and Medical Services
MWYCFA	Ministry of Women, Youth, Children and Family Affairs
NCD	Non-communicable disease
NGO	Non-government organisation
PWI	Personal Wellbeing Index
PWID	People/person who inject/s drugs
QOL	Quality of life
RAMSI	Regional Assistance Mission to Solomon Islands
RAP	Rapid Assessment of Perceptions
RSIPF	Royal Solomon Islands Police Force
SIPPA	Solomon Islands Planned Parenthood Association
SPC	Secretariat of the Pacific Community
STI	Sexually-transmitted infection
UNPF	United Nations Population Fund
WHO	World Health Organization

EXECUTIVE SUMMARY

Background

The use of alcohol, tobacco and other substances (e.g., betel nut, marijuana) are recognised as ongoing issues affecting the general population and the health, social support/welfare and law enforcement sectors of Solomon Islands. These issues are especially concerning among the large youth population. A high prevalence of gender-based violence is also a significant concern, and previous research has suggested a link between such behaviour and alcohol use in particular. Prevention, education and harm reduction initiatives can alleviate the personal, familial and wider societal costs associated with alcohol and other substance use, including gender-based violence; however, such initiatives need to be evidence-based and relevant to local contexts. To this end, only limited research has examined alcohol and other substance use and associated issues among the general population in Solomon Islands, and among young people more specifically. The current study sought to address these gaps to inform the development of a program designed to address problematic substance use and related personal and interpersonal consequences in Solomon Islands, with a focus on gender-based violence.

Method

The research project incorporated a multidisciplinary and collaborative approach between the Burnet Institute and Save the Children. In developing the study design, input was sought from relevant stakeholders throughout Solomon Islands during September 2015. Specifically, the study involved two key components: 1) the collection of quantitative data via a structured survey administered to young people (aged 15-24 years) in four provinces of Solomon Islands; and, 2) the collection of qualitative data via focus group discussions with key stakeholders and target population members.

The survey included questions on: sociodemographics; alcohol and other substance use; alcohol-related harms; use of alcohol and other substances by people who share the same household; attitudes about gender-based violence and gender inequality; self-perceived social support; sexual behaviours; and, general, mental and physical health.

Results

Four hundred young people were administered the structured survey throughout October and November 2015. Betel nut was the substance most commonly used by participants (88% reported use in the last four weeks), followed by tobacco (70% had smoked in the last four weeks). Daily use of betel nut and tobacco was common among the sample. Most (79%) participants reported lifetime use of any alcohol (i.e., store-bought/licit alcohol, homebrew and/or kwaso), with around two-thirds (65%) reporting alcohol consumption in the last four weeks. There was a high prevalence of risky drinking behaviours; for example, participants who reported drinking store-bought alcohol in the past four weeks had done so on a median of two occasions per week (range: 1-28), and reported drinking a median of 12 cans of *Solbrew* in a 'typical' session. Five percent of participants reported drinking store-bought alcohol on a daily basis in the last four weeks. Nearly half (48%) of the total sample had ever used marijuana, with 37% reporting use in the last four weeks on a median of 12 days (approximately three days per week). Use of other substances (e.g., petrol, spray paint, glue) was minimal. Overall, males were significantly more likely to use all substances except for betel nut compared to females; for example, 89% of all male participants reported lifetime use of any alcohol (i.e., licit and/or illicit) compared to 54% of females. Overall, levels of alcohol and other substance use were very high among this study's sample compared to previous research involving both young people and the wider population.

The vast majority of participants who reported drinking any alcohol in the last year reported experiencing numerous alcohol-related harms. For example, fifty-eight percent of participants who had drunk alcohol in the last year reported becoming violent or aggressive at least once during a session of alcohol use in the period, most commonly (83%) with parents. In addition, 84% reported experiencing financial problems and 76% reported experiencing social/relationship issues with family members, partners and/or friends as a result of their alcohol use in the previous 12 months. Bivariate analyses identified a number of factors associated with alcohol-related violence/aggression, including older age (within the 15-29 year range), residing in rural/regional areas (vs. urban/peri-urban), and consuming a greater number of store-bought drinks per 'usual' session in the last four weeks.

The majority of the sample (82%) had ever had sex; the median reported age at first sex was 16 (range 9-24 years). Risky sexual behaviours were prevalent among the sample; for example, of the participants who reported six or more sexual partners in the previous year 82% reported never using a condom or using such protection only a minority of the time

Findings from the Gender Equitable Men (GEM) scale indicated very few differences between male and female participants regarding gender-based violence and gender inequality, highlighting the need for relevant initiatives to target both genders in relation to addressing such issues. For example, 60% of males who responded agreed or partially agreed that 'there are times when a woman deserves to be beaten,' compared to 59% of females. Reduced acceptance of gender-based violence and gender inequality was significantly associated with older age, increased satisfaction/happiness in general and across numerous life domains, and ever having sex.

Findings from focus group discussions with target population members and key stakeholders further explored the issues detailed above and highlighted numerous barriers to service utilisation in relation to addressing alcohol and other substance use and gender-based violence, including: a lack of appropriate and specialist services; a limited focus on young people; geographical barriers; budget and resource constraints; and, limited coordination between services.

In consideration of this study's findings, recommendations to address alcohol and other substance use, gender-based violence and related issues among young people and the wider population in Solomon Islands include: creation of employment and education opportunities for young people; education of personnel at relevant services and organisations; development of national guidelines for licit alcohol consumption; and, addressing risky sexual behaviours among young people.

INTRODUCTION

Overview: Solomon Islands[1]

Location: South Pacific Ocean, east of Papua New Guinea (Oceania)

Total geographical area (square kilometres): 28,896 (97% land)

Ethnic groups (2009 approximate estimates):

Melanesian: 95%

Polynesian: 3%

Micronesian: 1%

Other: <1%

Languages:

Official: English, but spoken by only ~1-2% of the population

Melanesian pidgin (in much of the country is lingua franca)

120 indigenous languages

Religions (2009 est.):

Protestant 73% (Church of Melanesia: 32%; South Sea Evangelical: 17%; Seventh Day Adventist: 12%; United Church: 10%; Christian Fellowship Church: 3%)

Roman Catholic: 20%

Other Christian: 3%

Other: 4%

None or unspecified: <1%

Population (2015 est.): 584,000

Growth rate: 2% per annum

Sex ratio: 103.2 males per 100 females

Approximate proportion of population aged 15-24 years: 20% (~115,000 people)

[1] https://www.cia.gov/library/publications/the-world-factbook/ and www.unescap.org

Crude birth rate (2015 est.): 29.6/1000

Infant mortality rate (2013 est.): 25 deaths per 1,000 live births

Life expectancy at birth (2015 est.): 68.1 years

Expected duration of education, primary to tertiary (2007):

Females: 8.8 years

Males: 9.7 years

Youth literacy rate (1999):

Females: 80% of population aged 15-24 years

Males: 90% of population aged 15-24 years

Total unemployment rate (2012): 4.6% of labour force

Youth unemployment rate: 11.5% of labour force aged 15-24 years

GDP (2013; 2011 PPP dollars): $1.12 billion

GDP per capita (2013; 2011 PPP dollars): $2,003

Solomon Islands is an archipelago of six main islands and numerous small islands. There are nine provinces in total: Central, Choiseul, Guadalcanal (including the nation's capital, Honiara), Isabel, Makira-Ulawa, Malaita, Rennell and Bellona Province, Temotu and Western Province. The terrain ranges from rugged mountains to low-lying coral atolls. Rainforest covers the large islands' interiors; the country's land comprises around 79% forest and 4% agricultural land (in addition to 17% 'other'). Solomon Islands affords abundant natural resources, including myriad marine species, diverse animal and plant life and various metals and raw materials (e.g., gold, bauxite, phosphates, lead, zinc, and nickel). The ocean-equatorial climate is extremely humid throughout the year, with an average temperature of 27°C (80°F) and few temperature or weather extremes.[2]

Brief History[3]

Archaeological evidence indicates that Solomon Islands have been inhabited, primarily by Melanesian people, since around 1000 BCE, with European (Spanish, specifically) colonisation commencing in 1568; indeed, believing that gold was present, Alvaro de Mendana named the country 'Solomon's Islands' after King

[2] https://www.cia.gov/library/publications/the-world-factbook/geos/bp.html and http://www.commonwealthofnations.org/yb-pdfs/solomon_islands_country_profile.pdf

[3] http://www.commonwealthofnations.org/yb-pdfs/solomon_islands_country_profile.pdf and https://digitalcollections.anu.edu.au/bitstream/1885/41835/3/bennett02-5.pdf

Solomon's mines. In 1893, Britain made the South Solomons a Protectorate, with the Santa Cruz group being added in 1898-99. Solomon Islands played a significant role in the Second World War, due to occupation by the Japanese army and subsequent counter-invasion by allied troops (fighting was almost continuous during 1941-3, including the six-month Battle of Guadalcanal which is considered crucial to the outcome of the war in the Pacific region). In 1975, the 'British Solomon Islands Protectorate' was officially changed to its current title; subsequently, Solomon Islands became internally self-governing at the beginning of 1976 and proceeded to full independence two years later on 7 July 1978 under the leadership of Peter Kenilorea.

Past, Ongoing & Future Challenges[4]

Similar to other Pacific nations, the history of Solomon Islands is characterised by political and social instability. The period between 1998 and 2003 was especially defined by severe escalation of civil unrest, primarily as a consequence of intercommunal tensions in Guadalcanal regarding use and social and economic opportunities; for example, there was a degree of concern among the indigenous people of Guadalcanal regarding continuing settlement of large numbers of nationals from other islands, particularly Malaita, in the context of poor public infrastructure and an unstable economy. Following intensification in levels of violence during late 1998 and early 1999, a state of emergency was declared in June 1999. Throughout the following years, and despite numerous national and international attempts to broker peace agreements, the civil unrest continued. Gender-based violence reportedly worsened in the areas of Solomon Islands most affected by civil unrest, violence and lawlessness [1]. Eventually, following a meeting of the Pacific Islands Forum Foreign Affairs Ministries in Sydney, Australia, in June, 2003, the Regional Assistance Mission to Solomon Islands (RAMSI) – consisting of police, military, and civilian advisors drawn from 15 countries and organised by Australia[5] – arrived in the country the following month as the key component of a peacekeeping mission to restore law and order in Solomon Islands [2]. In July 2013, around the 10-year anniversary of the mission's commencement, the RAMSI military contingent began its withdrawal to transition into a sole policing mission [including training, mentoring, operational and logistical support to the Royal Solomon Islands Police Force (RSIPF), and investment in the RSIPF's equipment and infrastructure, such as police housing, transport and communication]. RAMSI is expected to remain in Solomon Islands until 2017.

RAMSI has been lauded for re-establishing and maintaining political and civil stability while reinforcing a degree of economic and regional security. The assistance provided to the RSIPF by RAMSI has encompassed initiatives to combat gender-based violence and enhance the capacity of the RSIPF to address pertinent issues, including training RSIPF officers about the contexts of domestic and gender-based violence, responding to and investigating instances of violence, and educating and collaborating with communities to prevent and reduce domestic/gender-based violence.[6]

Current Constitution & Political System[7]

Solomon Islands is one of the Commonwealth's 53 member countries (it joined in 1978, the same year it achieved independence). Specifically, Solomon Islands is classified as one of the Commonwealth's 31 'small states;' i.e., it has a population size of less than 1.5 million. The country is categorised as a constitutional

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[4] Ibid.

[5] http://www.ramsi.org/

[6] http://www.ramsi.org/works/family-violence/

[7] http://thecommonwealth.org/member-countries/solomon-islands and http://www.spc.int/pafpnet/images/articles/policy-bank/solomon/Demo_Coa_Policy_Statement.pdf

monarchy with Queen Elizabeth II as its current Head of State. She is represented by the Governor General who is elected by Parliament and must be a citizen of Solomon Islands.

Solomon Islands National Parliament is unicameral, with 50 seats. Democratic elections are held every four years; the last federal elections were held in November 2014, when the Hon Manasseh Damukana Sogavare was elected Prime Minister. As head of the Democratic Coalition for Change Government, this is his third term as Prime Minister of the country.

Current Population[8]

Approximately 22% (i.e., ~130,000) of Solomon Islands' population live in urban areas, with most residing in small, widely dispersed settlements along the islands' coasts in communities and localities with low populations. The major urban area is the capital, Honiara, with a population of around 73,000 residents at the time of writing.

Although the vast majority (>95%) of the population identifies as Christian, with religion maintaining a considerable influence on the lives and values of individuals, families and communities in Solomon Islands, traditional social structures and customs remain important [6]; the culture is characterised by the 'wantok' system whereby people reside closely with their kin and are bound by group norms and obligations. There is a strong emphasis on assisting other community members in relation to shelter, food, clothing and work.

ALCOHOL & OTHER SUBSTANCE USE IN SOLOMON ISLANDS

Similar to other Pacific nations [7], limited research has been conducted on the use of alcohol and other substances by the general population and youth more specifically in Solomon Islands. Overall, the available data indicate that alcohol and marijuana are primary drugs of concern [7-11]. Substance use among the general community has been attributed to factors such as marginalisation (including unemployment/limited job opportunities and homelessness), boredom, social change and family breakdown [1]. A report produced by The World Bank [11] in 2013 demonstrated the extent of adverse consequences associated with substance use in Solomon Islands. The study, consisting of extensive qualitative field research involving community meetings, focus group discussions and individual interviews, aimed to inform efforts to improve justice service delivery in Solomon Islands, and attempted to understand the nature of disputation and sources of grievance impacting rural communities. Four main types of disputation were found, with the most prevalent issue being antisocial behaviours ('social order problems') associated with substance use. The authors noted that, in some locations, the production, supply and use of licit and illicit alcohol and other substances were endemic and more common than other forms of dispute. The other three disputation types identified by the research included: problems arising from NGO, government and donor projects; development and land-related disputes; and – particularly relevant to the current project – marital disputation and domestic violence.

Alcohol

Throughout the Pacific, heavy alcohol use by the general population, including young people, continues to be a significant public health problem [12]. Numerous alcohol-related consequences, such as drink-driving, violence and mental health concerns, continue to be major issues in the region and impact considerably on

[8] https://www.cia.gov/library/publications/the-world-factbook/, www.unescap.org and http://thecommonwealth.org/member-countries/solomon-islands

individuals, families and the wider community [13]. In Solomon Islands, licit and illicit alcohol is consumed in a variety of different forms, as Kuschel et al. described in their book chapter, *Alcohol and Drug Use in Honiara, Solomon Islands: A Cause for Concern* [14]:

Licit alcohol is purchased from bottleshops, bars, nightclubs and restaurants and includes locally-brewed beer [e.g., *Solbrew* and the stronger *Special Brew (SB)*], imported beers, wine, hard liquor ('*hotstaf*' in Pijin; e.g., gin, vodka, whisky) and premixed drinks.

The first type of illicit alcohol is *homebrew*, resulting from the fermentation of sugar, yeast and fruit juice in water. The second is *kwaso*, which is distilled from homebrew and has a very high alcohol concentration. Consequently, Kuschel et al. noted that, 'when people get drunk [on kwaso] they totally lose self-control.' Both homebrew and kwaso are reportedly popular among low-income and unemployed people and youth due to the cheap price compared to store-bought/licit alcohol [1].

A small number of studies have produced findings on the prevalence of alcohol use among young people and/or the wider population in Solomon Islands:

A WHO STEPS survey was conducted with 2,833 individuals aged 15-64 years (57% female vs. 43% male) in Solomon Islands during 2005-2006 [10]. This research was considered to be a baseline assessment of non-communicable diseases (NCDs) and associated risk factors among the general population. Among participants aged 15-24 years, approximately 64% of males had consumed any alcohol in the past 12 months, compared to 25% of females. In contrast, 52% of males aged 25-64 and 15% of females in the same age-group had drunk any alcohol in the past year; however, consumption levels were highest among the younger participants in that overall group (64% of males and 20% of females aged 25-34 years).

In 2011, 1,421 students completed the Global School-based Student Health Survey (GSHS), which captured information on alcohol, marijuana and tobacco consumption patterns [15]. Regarding alcohol, 18% of students aged 13-15 years reported consuming at least one alcohol drink in the past 30 days (approximately 21% of males vs. 13% of females). Among those who reported lifetime consumption of alcohol, nearly two-thirds (64%) reported having their first drink before the age of 14 years. This early initiation of alcohol and other substance use among young people is concerning; in 2015, Peltzer and Pengpid [16] examined the GSHS data from Solomon Islands, Kiribati, Samoa and Vanuatu and found that participants who reported pre-adolescent (<12 years) substance use initiation were also more likely to report suicidal ideation and suicide attempts.

With findings only relating to past-week substance use, the recently (2015)[9] published Household Income and Expenditure Survey report [17] provided limited indications of alcohol consumption patterns among the general population aged 10 years and above. Nevertheless, on a national level, seven percent of respondents reported consuming alcohol in the last week. Use of alcohol was more common among survey participants compared to those in rural areas (11% vs. 6%, respectively), and was also reported more often by male respondents in comparison to females (11% vs. 1%, respectively).

One major limitation of these studies is the lack of clarification about what types of alcohol were consumed by participants, in addition to comprehensively examining episodes of heavy drinking (particularly of potent non-store-bought alcohol types). This gap is significant given the potential for experiencing greater harms as a result of consuming drinks with higher alcohol concentrations (e.g., spirits/liquor versus beer) and 'bingeing' on alcohol [18-21], in addition to research which has demonstrated links between beverage preference, use motivations and alcohol consumption patterns among adolescents [22] and adult men [23].

[9] Note that data were collected during 2012/13.

The gap was partly addressed by Jourdan's [1] situational analysis of youth and mental health in Solomon Islands, in that contexts of kwaso use (e.g., combining the drug with marijuana) and kwaso purchasing knowledge and behaviours were partially investigated via qualitative means. For example, the young people from Honiara who were interviewed for Jourdan's research did mention that kwaso had replaced beer as the 'favourite alcohol for young people.' Reasons for this included: availability; young people were knowledgeable about how to produce kwaso; its alcohol content is greater than beer; and, it can be consumed in a variety of forms (e.g., combined with soft drink, 'coffee mix' or coconut water).

Despite this research, there remains a lack of epidemiological data on homebrew and kwaso use among young people and the wider population in Solomon Islands.

Betel Nut

Although use of betel nut is reportedly common among young Solomon Islanders and the population in general [24, 25], there is a dearth of literature on the topic (including related harms). The WHO STEPS findings [10] and recent household survey [17] are two of the main – and only – indicators of betel nut prevalence and patterns of use among the general community.

Among the WHO STEPS respondents aged 15-24 years, 78% of males reported chewing betel nut at least once in the previous year, compared to two-thirds (66%) of females. In contrast, 68% of male respondents aged 25-64 years had chewed betel nut in the last year, as well as 57% of women. Among current daily 'chewers' in the older age group, the average age of first betel nut use was approximately 21 years (~20 years for males and 22 years for females). In comparison, male and female STEPS respondents aged 15-24 years reported commencing betel nut use around the age of 15 years.

Forty-five percent of the Household Income and Expenditure Survey sample reported using betel nut in the last week (46% of urban respondents vs. 43% of those in rural areas). Past-week use of betel nut was more commonly reported by male respondents compared to females (49% vs. 41%, respectively).

Tobacco

A small number of studies provide indications of levels of tobacco use among young people and the wider population in Solomon Islands; however, it is difficult to compare the findings of such research given varying sample characteristics and that usage patterns relate to different time periods:

The 2011 GSHS indicated that nearly one-quarter (24%) of surveyed students reported smoking a cigarette at least once in the past 30 days (28% of males vs. 18% of females) [15].

The WHO STEPS report noted that approximately 60% of males aged 15-24 years had smoked in the past year versus 28% of females [26]. In comparison, 54% of male STEPS respondents aged 25-64 years and 25% of females reported smoking in the previous year.

Twenty-two percent of respondents to the more recent Household Income and Expenditure Survey reported using tobacco in the last week [17]. Again, the prevalence of tobacco consumption was higher among male versus female respondents (34% vs. 9%, respectively); however, the difference in past-week tobacco use rates between urban and rural participants was relatively small (24% vs. 21%, respectively).

Illicit Substance Use

In general, indicators of illicit substance use in Solomon Islands, including amphetamine-type stimulants, heroin and cocaine, are noticeably lacking (similar to Pacific nations in general) [27]. For example, although the WHO STEPS survey collected information on the use of alcohol, tobacco, betel nut and prescribed

pharmaceuticals among respondents [10], no data was obtained relating to illicit drug consumption. Similarly, a subsequent demographic and health survey (2006/07) neglected to collect information on the use of substances other than tobacco [28]. One study conducted by the Federation of Solomon Islands Youth (FOSIY) did report that up to 11% of a cohort of more than 3,300 unemployed young people reported use of speed (methamphetamine) or cocaine [7, 29]; however, such findings contrast considerably with anecdotal evidence.

The 2011 GSHS [15] collected limited data on marijuana, with findings showing that only a minority – i.e., approximately 14% – of the total sample had ever used the drug (16% of male respondents vs. 11% of females). The available findings also indicated that, of the survey respondents who reported ever using 'drugs,' around 70% had first done so before the age of 14 years (72% of male participants vs. 65% of females).

Regarding injecting drug use (IDU), no specialist services are available for PWID in any of the provinces, and only very limited research has been conducted on the prevalence of injecting behaviours in Solomon Islands [30, 31].

GENDER- BASED VIOLENCE IN SOLOMON ISLANDS

During 2008, the Secretariat of the Pacific Community (SPC) conducted a study which produced findings that are fundamental to current understandings of gender-based violence in Solomon Islands [32]. Over about 22 weeks (April-September), household surveys were conducted with 2,282 women aged 15-49 years for *Solomon Islands Family Health and Safety Study: A study on violence against women and children*. These quantitative surveys were supplemented by qualitative interviews and focus group discussions with key informants and healthcare professionals, in-depth interviews with both victims and offenders of violence, and focus group discussions with women and men of different age-groups. Overall, the study's findings revealed worryingly high levels of violence against women in Solomon Islands and highlighted the considerable and pervasive adverse effects of gender-based violence impacting individuals, families and the wider community. Specifically:

Close to two-thirds (64%) of ever-partnered women aged 15-49 reported lifetime experience of physical and/or sexual violence by an intimate partner;

Forty-two percent of women had experienced physical and/or sexual violence in the past year.

Over one-third of the sample (37%) reported experiencing sexual abuse before the age of 15.

Among respondents who had ever had sex, nearly two-fifths (38%) reported that their first sexual experience was forced or coerced.

Female victims of intimate partner violence were over four times more likely to report that a partner had abused their children emotionally, physically and/or sexually.

Of particular relevance to the current study was the positive association between the use of alcohol by respondents' partners and intimate partner/gender-based violence. Male focus group participants also listed alcohol as a primary reason for such violence. The authors hypothesised that this link was likely due to numerous factors, including the disinhibiting effect of alcohol, an increased likelihood of conflict due to intoxication, and the provision of 'a social space for punishment.' The authors did assert that alcohol consumption was not an explanation for any imbalance of power within relationships; consequently, while preventing or reducing alcohol use might decrease the risk and incidence of gender-based violence, it will not address or eliminate the core factors contributing to such behaviours.

Jourdan's 2008 situational analysis [1][10] investigated issues of mental health, violence, substance use and suicide among young people in Honiara, with findings indicating that 'young boys' (aged in their late teens and unmarried) were perceived to be key perpetrators of violence. Such behaviour was attributed primarily to unemployment and lack of money, parental failure, alcohol and other substance use, and 'the breakdown of moral codes.' The research also indicated that gang rape of women ('*longlaen*' in Pijin) was not uncommon in Honiara and was 'always associated with alcohol intoxication or drug abuse.'

[10] This study incorporated a 'Knowledge Action Practice (KAP)' approach with the methodology comprising focus group discussions and surveys with young men and women, in-depth interviews with key informants, and a review of relevant literature and available and pertinent data (e.g., suicide rates).

Note that *Appendix 4* lists previous and current strategies and programs (generally targeted towards males) designed to combat gender-based violence and gender inequality in Solomon Islands.

PROFESSIONAL & COMMUNITY- LEVEL SUPPORT & INTERVENTIONS FOR ALCOHOL, OTHER SUBSTANCE USE & VIOLENCE

Drug Treatment

Drug and alcohol issues in Solomon Islands are generally treated as part of the mental health sector [7]. Excluding an official Alcoholics Anonymous program which is coordinated by at least one faith-based non-government organisation (NGO), in addition to informal group counselling sessions held in private homes, there are currently no specialist drug treatment services in Solomon Islands. In addition, current health and social support services reportedly lack staff who are trained in treating issues related to alcohol and other substance use generally and among young people more specifically (see key stakeholder *Focus group discussion findings* below).

Generalist & Mental Health Support

The country's Ministry of Health coordinates a national Health Information System which requires health service staff (e.g., general practitioners, nurses) to collect and regularly (i.e., monthly) report the details of presentations at public clinics and hospitals. However, the System's current reporting template only includes a very limited, generic section relating to alcohol- and other substance-associated presentations ('Substance Abuse'), referrals or other issues. This precludes adequate examinations of licit and illicit drug-related admissions to health services on a national level.

Similarly, information is collected from patients presenting to Honiara's National Referral Hospital using a standard hardcopy form which neglects to include prompts or sections relating to alcohol and other substance consumption patterns or related harms. Hospital staff are expected to enter information from patients' hardcopy records into an electronic database; however, limited time, and inconsistencies between staff regarding information technology knowledge and skills, mean that this information is not always transferred to the electronic system. Limited knowledge of alcohol and other substance issues (e.g., use patterns, related harms, signs and management of intoxicated patients) among hospital staff further impacts on the reliability and accuracy of information of drug-related presentations collected and stored at the hospital. Regardless, the electronic database is managed by a general Data Information Officer at the hospital who compiles reports to be disseminated internally on a sporadic basis.

Many substance users in Solomon Islands, including young people, are referred to the National Referral Hospital's psychiatric unit for generalist (i.e., non-drug-specialist) mental health support; it is likely that such referrals are less likely for people living in rural areas who may face geographical and transport barriers in accessing the hospital in Honiara. Common referral sources include the hospital's emergency and outpatient departments, public and private health clinics, and the local police. The service's triage form prompts for 'problems' relating to use or misuse of alcohol, marijuana/non-prescription drugs and pharmaceuticals. In addition, most staff are not trained in how to detect or formally assess or manage drug-related issues in general, which possibly results in under-estimates and inconsistent reporting of substance use among patients. Patient data are collected and stored in hardcopy form, which hinders regular and efficient analysis, collation and dissemination of such information. Nevertheless, an annual report is compiled for the Ministry of Health which includes information on drug-related presentations.

Non-Government Organisations

A number of NGOs in Solomon Islands address alcohol and other substance use and related issues, including gender-based violence. The Solomon Islands Development Trust works in villages around the country with the goal of building leadership capacity among the general population to deal with various life risk factors, including alcohol and other substance use. The Family Support Centre in Honiara provides counselling and legal assistance to victims of domestic violence, sexual abuse and human trafficking. Seif Ples[11] is a gender-based violence crisis, clinic and referral centre with a helpline which is funded by one of the country's national telecommunications providers, *Our Telekom*. World Vision and the Young Women's Christian Association [33] also work to reduce gender-based violence. The Christian Care Centre runs the only shelter for female victims of domestic violence in the country [34]. The Solomon Islands Planned Parenthood Association (SIPPA) provides sexual and reproductive health education and relevant clinical services and is one of the only non-commercial sources of condoms for young people nationwide. In general, however, there is a limited focus on educating and addressing the needs of young people relating to alcohol and other substance use and associated issues, including gender-based violence.

CURRENT STUDY

As described above, the use of alcohol, tobacco and other substances are recognised as ongoing health and criminal justice issues affecting the general population of Solomon Islands [26, 35, 36]. In early 2015, the Solomon Islands' Ministry of Health and Medical Services indicated that the local health sector is under-resourced in its capacity to respond to substance use and related problems among young people (personal communication). For example, mental health professionals are responsible for addressing issues related to chronic mental health problems and alcohol and other substance use; in many instances they have limited knowledge, experience, capacity or resources to effectively and comprehensively respond to such issues at national, provincial and community levels, particularly in regions outside of Honiara [7].Furthermore, they often lack the specific knowledge, experience, capacity or resources to support young people who are facing these issues.

Interventions that support young people who use alcohol and other drugs can alleviate the impacts of resultant harms on the country's health, social support and law enforcement sectors. Prevention and harm reduction approaches can disrupt transitions to more frequent and heavy use patterns by addressing factors associated with alcohol and other substance consumption and related personal and wider societal costs, including involvement in criminal and other antisocial and risk behaviours [e.g., 13, 37, 38, 39]. However, such initiatives need to be evidence-based and relevant to local contexts. As outlined above, only limited research has examined alcohol and other substance use and associated issues among the general population in Solomon Islands, and among young people more specifically. The current study sought to address these gaps.

RESEARCH QUESTIONS

This study was undertaken to address the following key research questions:

- What is the prevalence of alcohol and other substance use among young people (aged 15-24 years) in targeted locations across Solomon Islands?

[11] https://pineapplepost.wordpress.com/2014/10/10/seif-ples-spread-the-word/

- What are the underlying drivers and protective factors associated with patterns of alcohol and other substance use?
- What adverse consequences of substance use among young people in Solomon Islands impact the youth themselves, their families, and the wider community?
- Are there links between alcohol and other substance use and violence among young people?
- If so, what type/s of violence? What is the prevalence of violent behaviours?
- Are there links between alcohol and other substance use and poor mental health?
- What formal/informal community-level mechanisms exist for addressing these issues?
- How well are these mechanisms working?
- What can be strengthened or what can be leveraged for a more efficient/sustainable response?

OBJECTIVE

In answering the research questions above, the overall objective of this research was to collect appropriate and adequate data to inform the subsequent development of a program designed to address problematic substance use and related personal and interpersonal consequences in Solomon Islands, with a focus on gender-based violence.

METHOD

This research project incorporated a multidisciplinary and collaborative approach between the Burnet Institute and Save the Children to investigate alcohol and other substance use among young people (i.e., those aged 15-24 years) in Solomon Islands and experience of related harms. In developing the study design, including the sampling methodology and data collection tools, input was sought from relevant stakeholders throughout Solomon Islands during September 2015, including: relevant NGOs, healthcare providers, government and law enforcement representatives, and religious groups (see *Appendix 1* for a comprehensive list), in addition to target population members.

Specifically, the study involved two key components:

- The collection of **quantitative data via a structured survey** administered to target population members; and,
- The collection of **qualitative data via focus group discussions** with key stakeholders and target population members.

SURVEY PARTICIPANT RECRUITMENT

Survey participants were recruited during October and November 2015 throughout four provinces in Solomon Islands: **Guadalcanal (Honiara), Malaita, Choiseul and Western**. In consultation with Save the Children staff working in each of these provinces, the recruitment sites listed in Table 1 were chosen with the intention of sourcing a range of young people from urban, peri-urban and rural/regional communities across the provinces of interest:

Table 1: Urban, peri-urban and rural/regional participant recruitment sites across Guadalcanal, Malaita, Choiseul and Western

Province	Community Type

	Urban	Peri-urban	Rural/regional
Choiseul		Sasamugga	Tuzu-Kolokapisi, Molevanga, Nukiki
Western	Water Pump, Dunde	Canaan	Varese, Lale, Kuzi
Guadalcanal/Honiara	Kobito, Lungga, Kwa Hill	GPPOL1	Takaboru
Malaita	Aligeogeo	Fio, Atori, Ambu	Kware, Fau'fanea

Survey participants were not reimbursed. Written informed consent or assent was obtained from all respondents prior to survey administration [40].[12]

ELIGIBILITY CRITERIA

To be eligible to undertake the structured survey, potential respondents were required to: a) be aged between 15 and 24 years; b) reside in one of the specified provinces (Guadalcanal, Malaita, Choiseul or Western) at the time of recruitment; and, c) be able to provide informed consent or assent.

Enumerator Training

In each of the four provinces, all enumerators were required to undertake 2-3 days of training prior to participant recruitment and data collection. The training comprised an overview of the study, including key themes and research questions and the overall methodology, in addition to topics such as: enumerator tasks and responsibilities (e.g., checking for consistency in participants' responses and maintaining participant confidentiality and privacy); preparing to go out to the field and proper conduct in the field; safety issues, including appropriate prevention and response measures; inviting potential respondents to participate; gaining and maintaining the cooperation of participants; and, interviewing participants about sensitive issues (e.g., alcohol and other substance use, violence, mental and physical health issues). The enumerators were also provided with comprehensive instructions on how to conduct the survey and sufficient time to practice administering the data collection tool.

SURVEY DESIGN & ADMINISTRATION

[12] ***Consent*** involves the wilful act of agreeing to undertake the survey and understanding what it involves. It requires an individual to be aged 18 years or older. For potential participants under 18 years (i.e., 15 to 17-year-olds for the purpose of this study), ***assent*** refers to agreeing to participate in the research. Note that assent is not legally binding; however, obtaining assent from individuals aged less than 18 is necessary, because simply failing to object to complete the survey should not be interpreted as agreeing to participate in the research (Kuther, 2003).

The structured survey comprised eight sections that included validated instruments (see *Measures* below) in addition to tailored questions: A: Sociodemographics; B: Alcohol and other substance use; C: Alcohol-related harms; D: Use of alcohol and other substances by people who share the same household; E: Gender Equitable Men (GEM) Scale; F: ENRICHD Social Support Inventory (ESSI); G: Sexual behaviours; and, H: General, mental and physical health. Prior to data collection, a draft survey was disseminated to stakeholders in Solomon Islands for feedback and input (e.g., in relation to the appropriateness and relevance of questions and specific terms), and a Save the Children staff member translated each question into Pijin.

Each survey was administered face-to-face by trained enumerators in each of the four provinces. Data was collected manually on hardcopy forms. No identifying information (e.g., name, address or telephone details, date of birth) was recorded on the survey. Prior to heading out to the field, each survey was allocated a unique sequential number for data entry and analysis purposes. The enumerators were advised that, whenever possible, they should interview participants of the same gender.

MEASURES

Alcohol & Other Substance Use and Related Harms

Questions around alcohol and other substance use were developed in consultation with key stakeholders; for example, discussions were conducted to determine specific substances of interest (e.g., marijuana, petrol, betel nut) and units of consumption (e.g., cups, bottles, buckets, joints). In general, participants were asked about lifetime use of each substance, recent use (in the past 12 months and last four weeks), and frequency of substance consumption. Survey respondents were also asked to provide primary reasons for alcohol consumption in particular, and were asked about the occurrence of alcohol-related harms in the previous year (e.g., 'yes' or 'no' responses to experience of adverse effects on work, study and relationships). Survey participants were permitted to subjectively define adverse alcohol-related work, study and social/relationship problems, but examples provided to respondents included underperforming or not completing specific tasks (e.g., homework), missing work or school due to intoxication or hangover symptoms, and arguments with family members, other relatives, partners or peers due to intoxication.

Gender Equitable Men (GEM) Scale

The GEM Scale is a validated, standardised questionnaire comprising 24 items that is widely used in comparable research [41]. Respondents are asked to state whether they 'agree' (score=1), 'partially agree' (score=2) or 'disagree' (score=3) with statements across four domains: Violence; Sexual relationships; Reproductive health and disease prevention; and, Domestic chores and daily life (refer to *Appendix 2* for a complete list of the 24 items). Participants are reminded that they can respond 'don't know' or 'refuse' to each statement (both these responses are scored 0). For participants who do not provide 'don't know' or 'refuse' responses to any of the 24 statements, final scores can range from 24 to 72, with higher scores indicating reduced acceptability of violence and gender inequality.

Research suggests that the GEM Scale is a sensitive and cross-culturally relevant tool with good predictive validity; adaptations in multiple contexts, including diverse countries such as Brazil, China, Ethiopia, India and Uganda, have worked well [41]. The questions included in the GEM Scale may appear biased against males; it must be noted that they were asked in the context of women generally being regarded as having lower status than men in Solomon Islands, with the identity of women largely centring around domestic duties [32]. The country's female population continues to face numerous inequalities across many life domains, including reduced education and literacy levels, lack of economic empowerment, and low rates of employment [32].

Additional Violence & Gender Equality Items

To enable comparisons between the findings of the current study and those of the 2009 *Family Health and Safety Study* described above [32], a small number of additional questions were added to the survey, primarily in relation to levels of acceptability around violence and sex given specific contexts (e.g.: '*In your opinion, is a husband justified in hitting or beating his wife in the following situations…?*'). These items were scored in the same way as the GEM Scale, as outlined above.

ENRICHD Social Support Inventory (ESSI)

The ESSI measures self-perceived social support [42]. It comprises six items relating to emotional (caring), structural (partner) and instrumental (tangible help) support with response categories in a 5-point Likert-type format, ranging from 'none of the time' (score=1) to 'all of the time' (score=5). A seventh item, 'living with spouse,' is scored 4 for a 'yes' response and 2 for 'no.' ESSI scores therefore range from 8-34; higher scores indicate greater levels of self-perceived social support.

EQ-5D-3L

The EQ-5D-3L was developed by the *EuroQol Group* and is a short, standardised measure of health-related quality of life (QOL) which collects self-reported descriptions of participants' current health across five domains: self-care, mobility, pain-discomfort, usual activities and anxiety/depression [43]. Each domain has three levels: no problems, some/moderate problems and extreme problems. Participants are asked to indicate their health state by choosing the most appropriate level/statement across each of the domains.

Personal Wellbeing Index (PWI)

The PWI scale contains seven 'satisfaction' items, with each item corresponding to different QOL domains: health; standard of living; personal achieving in life; safety; relationships; future security; and, community-connectedness [44]. Participants are asked to score each domain on a scale from 0 to 10; a score of 0 indicates that they are completely unsatisfied with respect to that life domain, whereas a score of 10 means they are completely satisfied. In addition to these seven items, participants are asked to rate their personal circumstances and life overall on the same 0-10 scale. These scores are then converted into units of Percentage of Scale Maximum (%SM), which is achieved using the formula: (score/x)*100, whereby 'x' represents the highest response category and scores range from 0-100 [45]. Cumulative psychometric characteristics of the PWI and Australian norms are listed in the most recent report on the Australian Unity Wellbeing Index [46]; the average cumulative PWI score in Australia sits around 75 (it has only fluctuated within a range of three points over the 15-year history of the report).

FOCUS GROUP DISCUSSIONS

Target Population Members

Following the administration of the structured survey to young people in each of the four provinces, target population members were invited to participate in focus group discussions to further explore the project's Research Questions and core themes through the collection of qualitative data; for example, through the provision of additional details regarding motivations for, and contexts of, alcohol and other substance use among young people, in addition to experience of related harms. Focus group discussions with target population members were conducted with administrators and participants of the same gender (i.e., male- and

female-only groups were held) and mediated by trained Save the Children representatives. Written informed consent was obtained from all respondents prior to survey administration.

Key Stakeholders

Representatives from relevant local agencies, government ministries and organisations/services in Honiara were also invited to participate in focus group discussions to provide valuable anecdotal information – particularly from a professional perspective – on trends and concerns related to problematic alcohol and other drug use (e.g., observations regarding harmful consumption patterns), related adverse consequences impacting individuals, families and communities, as well as underlying drivers of harmful substance use among young people (and the wider population, if applicable). In particular, the focus group discussions enabled more comprehensive investigation of the scope, coverage and characteristics of formal and informal programs, services and mechanisms targeted towards problematic substance use, mental health and social issues (including violence) among young people and their families, to gauge their impact on related outcomes and discern what does and does not 'work' in addressing substance use and related harms in Solomon Islands. Ideally, information gained from the key stakeholder focus group discussions regarding organisational aims, coverage, services provided, funding, acceptability by young people, and barriers and enablers to service provision will aid in enhancing the impacts of current service provision on local (i.e., community) and national levels.

DATA ANALYSIS

Quantitative Data

Descriptive statistics were calculated to describe the study sample as a whole and investigate outcomes of interest (e.g., use of alcohol and other substance use among participants). Bivariate analyses examined significant associations and differences between variables; specific methods included the Mantel Haenszel Chi-square and Fisher's exact tests for categorical variables, the Wilcoxon signed-rank test for examining associations between continuous/non-parametric variables and dichotomous categorical variables, and the Kruskal Wallis test for investigating associations between continuous/non-parametric variables and independent variables with more than two levels. All data analyses were conducted using Stata Version 13 (Statacorp LP, Texas, USA), with a significance level of $p<0.05$. All reported percentages are rounded to the nearest whole number.

Qualitative Data

Handwritten notes were taken during each focus group discussion, including the recording of relevant verbatim quotes. These notes were subsequently entered into an electronic spreadsheet and analysed thematically for key issues and trends for triangulation with the survey data.

ETHICAL CLEARANCE

Ethics approval for the study was sought from the Alfred Health Human Research Ethics Committee (alfredresearch.org; project number: 433/15). In addition, official endorsement was granted from the Solomon Islands' Ministry of Women, Youth, Children and Family Affairs (MWYCFA; see *Appendix 5*)

RESULTS: SURVEY FINDINGS

PARTICIPANT SOCIODEMOGRAPHICS

A total of 400 young people were administered the structured survey across the four provinces of interest; 113 participants were recruited in Guadalcanal, 105 in Malaita, 83 in Choiseul and 99 in Western province (Table 2). A median age of 19 years was recorded (range: 15-24 years) and most (70%) participants were male. Although this was consistent across each of the four provinces, the proportion of females recruited to the study differed significantly between the regions; a maximum of 45% was recorded in Western province compared to 34% in Guadalcanal, 22% in Choiseul and 17% in Malaita. Significant differences between provinces were also observed regarding: the proportions of participants currently studying; sexual identity (12% of participants in Western province reported being bisexual); employment status (e.g., the unemployment rate among Guadalcanal participants was highest at 86%); and, relationship status (e.g., Malaita had the highest number of married/defacto participants with 19%). As expected, younger participants (i.e., those aged 19 years or less) were significantly more likely to be enrolled in any education at the time of interview (60% vs. 21% of those aged 20 years or over); conversely, those aged over 19 years were less likely to be unemployed (67% vs. 89% of those aged 19 years or less).

Regarding participants' living arrangements, about two-thirds (67%) of the sample reported that they currently lived with both their parents. In comparison, 15% lived with neither, 14% only lived with their mother and 4% only live with their father. Older participants were significantly less likely to be living with their parents. The median number of people living in the same household in addition to participants was six (range: 1-17); i.e., no participants reported currently living on their own.

Of the participants who reported living with their father (n=285), 44% reported that their father currently worked a median of 10 hours per week (range: 2-56 hours). Of the participants who reported living with their mother at the time of interview (n=323), 29% reported that their mother currently worked a median of 10 hours per week (range: 1-60 hours).

Table 2: Participant sociodemographics by province [n(%)]

		PROVINCE			
	TOTAL (N=400)	**GUADALCANAL (N=113)**	**MALAITA (N=105)**	**CHOISEUL (N=83)**	**WESTERN (N=99)**
Age (years)					
Median (range)	19 (15-24)	19 (15-24)	20 (15-24)	20 (15-24)	19 (15-24)
15-19	205 (51)	64 (57)	50 (48)	36 (43)	55 (56)
20-24	195 (49)	49 (43)	55 (52)	47 (57)	44 (44)
Female	119 (30)	38 (34)	18 (17)	18 (22)	45 (45)
Education[a]					
Currently Studying* **	163 (41)	45 (40)	30 (29)	37 (46)	51 (52)
Highest level achieved*					
No formal schooling	10 (3)	4 (4)	5 (5)	0 (0)	1 (1)
Less than primary	46 (12)	0 (0)	29 (28)	4 (5)	13 (13)

		PROVINCE			
	TOTAL (N=400)	**GUADALCANAL (N=113)**	**MALAITA (N=105)**	**CHOISEUL (N=83)**	**WESTERN (N=99)**
Primary	232 (58)	38 (34)	51 (49)	60 (72)	83 (84)
Secondary	104 (26)	65 (58)	18 (17)	19 (23)	2 (2)
Tertiary	7 (2)	5 (4)	2 (2)	0 (0)	0 (0)
Main employment last month**					
Unemployed	311 (78)	95 (86)	81 (77)	52 (63)	83 (84)
Full-time worker	20 (5)	3 (3)	6 (6)	6 (7)	5 (5)
Casual/part-time worker	24 (6)	6 (5)	4 (4)	7 (8)	24 (6)
Self-employed	36 (9)	5 (5)	12 (11)	15 (18)	4 (4)
Other	7 (2)	2 (2)	2 (2)	3 (4)	0 (0)
Sexual identity*					
Heterosexual	383 (96)	112 (99)	105 (100)	81 (99)	85 (86)
Bisexual	13 (3)	0 (0)	0 (0)	1 (1)	12 (12)

		PROVINCE			
	TOTAL (N=400)	**GUADALCANAL (N=113)**	**MALAITA (N=105)**	**CHOISEUL (N=83)**	**WESTERN (N=99)**
Homosexual	3 (1)	1 (1)	0 (0)	0 (0)	2 (2)
Relationship status*					
Single	155 (39)	54 (48)	20 (19)	47 (57)	34 (34)
Married /defacto/living together	53 (13)	9 (8)	20 (19)	12 (15)	12 (12)
Stable relationship (not living together)	191 (48)	50 (44)	65 (62)	23 (28)	53 (54)
Community classification					
Urban	88 (22)	63 (56)	10 (10)	0 (0)	15 (15)
Peri-urban	54 (14)	5 (4)	16 (15)	3 (4)	30 (30)
Rural/regional	258 (65)	45 (40)	79 (75)	80 (97)	54 (55)

*Missing data for one respondent

**Missing data for two respondents

***Missing data for three respondents

ALCOHOL & OTHER SUBSTANCE USE

Table 3 presents a broad overview of lifetime and recent use of licit and illicit alcohol and other substances among the entire survey sample. Specific trends are identified in the subsections below.

Table 3: Lifetime and recent use of licit and illicit alcohol and other substances among survey participants (N=400)

Substance	Lifetime use n (%)	Past 12 months n (%)	Past 4 weeks n (%)	Median days used past month (range)[a]	Use alone n (%)[b]
Tobacco**	304 (76)	287 (72)	277 (70)	28 (1-28)	-
Betel nut*	374 (94)	366 (92)	351 (88)	28 (2-28)	-
Marijuana**	191 (48)	166 (42)	148 (37)	12 (1-28)	-
Store-bought alcohol	312 (78)	281 (70)	245 (61)	8 (1-28)	103 (26)
Homebrew	199 (50)	155 (39)	132 (33)	8 (1-28)	46 (12)
Kwaso	238 (60)	206 (52)	183 (46)	8 (1-28)	71 (18)
ANY alcohol[c]	315 (79)	297 (74)	259 (65)	-	119 (30)

[a]Among those who had used it in the last four weeks

[b]Question only asked regarding consumption of different alcohol types

[c]I.e., use of store-bought alcohol, homebrew and/or kwaso

*Missing data for one respondent

**Missing data for two respondents

Any Alcohol (i.e., Use of Store-Bought Alcohol, Homebrew &/or Kwaso)

The majority (79%) of survey respondents reported lifetime use of any type of alcohol. Male participants were significantly more likely to report ever drinking any alcohol compared to females (89% vs. 54%, respectively), and were also significantly more likely to report drinking any alcohol in the past year and past four weeks (85% vs. 48% and 76% vs. 39%, respectively). Likewise, participants who were employed at the time of interview were significantly more likely to have used any alcohol during their lifetimes, in the past 12 months and past four weeks. Survey respondents who were currently studying were significantly less likely to report lifetime, past-year or past-four-week use of any alcohol; however, there were no significant differences in alcohol usage according to highest level of education completed. There were no significant differences between urban, peri-

urban and rural/regional participants with regarding to lifetime and past-year use of any alcohol; although, rural/regional and peri-urban participants were significantly more likely to report consuming any alcohol in the past four weeks compared to urban respondents (69% and 67% vs. 51%, respectively). Further, survey participants from Choiseul were significantly more likely to report lifetime consumption of any alcohol (99%) compared to respondents from Malaita (91%), Guadalcanal (73%) and Western (56%) provinces, in addition to being significantly more likely to report past-year and past-four-week use of any alcohol (99% vs. 89%, 65% and 49%, and 99% vs. 79%, 48% and 40%, respectively). Participants who achieved higher cumulative scores on the PWI (see below) – i.e., who expressed greater happiness or satisfaction with life in general across a number of specific domains – were less likely to have consumed any alcohol in their lifetimes, during the past year or in the last four weeks. In addition, participants who reported higher levels of self-perceived social support according to the ESSI (see below) were significantly less likely to have used any alcohol in the past four weeks; however, there were no significant differences regarding lifetime and past-year use of any alcohol.

Store-Bought Alcohol

The majority (78%) of the sample reported ever consuming any type of store-bought alcohol (e.g., *Solbrew* cans and bottles, wine, 'premixed drinks' such as *Johnny Arrow*, and liquor), with a median reported age of first use of 15 years (range: 6-24). Overall, male participants were significantly more likely to report lifetime use of store-bought alcohol than females (89% vs. 53%, respectively) and were more likely to start using it at a younger age. Participants who reported lifetime, past-year and past-four-week use of licit alcohol were significantly more likely to be employed. Regarding provincial differences, lifetime use of store-bought alcohol was significantly higher among participants from Choiseul (99%), followed by Malaita (90%), Guadalcanal (73%) and Western provinces (55%). There were no significant differences in lifetime use of store-bought alcohol regarding area of residence (i.e., urban, peri-urban or rural); however, rural participants were significantly more likely to report use in the last four weeks. Among participants who commented on the type of store-bought alcohol they most frequently used in the last four weeks (n=243), the vast majority (98%) reported most commonly using *Solbrew*. Two hundred and seven participants reported using a median of 12 cans of *Solbrew* in a 'typical' or 'usual' session (range: 1-48). Participants (n=243) reported consuming store-bought alcohol on a median of two occasions per week in the last four weeks (range: 1-28); a minority (5%) of this group reported drinking on a daily basis. Around one-quarter of participants reported that they used store-bought alcohol alone at least occasionally.

Homebrew

Half the sample reported ever using homebrew, with one-third having done so in the past four weeks. Lifetime use of homebrew was significantly more common among male participants compared to females (64% vs. 17%, respectively), in addition to being significantly higher among Choiseul participants (78%), followed by those from Malaita (66%), Western (33%) and Guadalcanal (28%). Rural survey respondents were significantly more likely to report lifetime homebrew use compared to those from urban/peri-urban areas (57% vs. 37%, respectively), in addition to being significantly more likely to report homebrew use in the last four weeks (42% vs 16%). Participants who were employed were significantly more likely to report lifetime, past-year and past-four-week use of homebrew compared to those who were unemployed at the time of interview. In comparison, lifetime and past-year homebrew use was significantly more common among survey participants who were not currently studying. Likewise, homebrew use (lifetime, past 12 months and past four weeks) was significantly more common among respondents with lower levels of education (i.e., those who had not completed high school vs. those who had). Among participants who reported using homebrew in the past four weeks (n=132), the most common 'usual' unit of homebrew consumption was a bucket (approx. 15-20 litres). Seventy-six participants reported using a median of one bucket of homebrew during a typical/usual session (range: 1-7); however, it is possible that the number of buckets of homebrew reportedly consumed by participants in a typical/usual session could be an over-representation of the actual quantity of homebrew consumed given that buckets are commonly consumed communally.

Kwaso

Most (60%) of the sample reported lifetime use of kwaso. Similar to both store-bought alcohol and homebrew, lifetime use of kwaso was significantly higher among male participants compared to females (74% vs. 24%, respectively), in addition to being more common among participants from Malaita (85%) compared to those from Choiseul (73%), Guadalcanal (50%) and Western (31%) provinces. Although there were no significant differences between urban/peri-urban and rural participants regarding lifetime kwaso use, kwaso consumption in the last four weeks was significantly more common among rural survey respondents (50%) versus those from peri-urban (43%) and urban (35%) areas. As with store-bought alcohol and homebrew, participants who were employed were also significantly more likely to report lifetime, past-year and past-four-week use of kwaso compared to those who were unemployed at the time of interview. The most common (86%) unit of kwaso consumption among participants who had used it in the past four weeks was a bottle (approx. 330ml [1]), with these participants reporting using a median of five bottles (range: 1-24) during a typical/usual session.

Motivations and Reasons for Alcohol Use

Survey participants who reported any alcohol use in the previous year (n=297) were asked to list up to three main reasons for usually consuming store-bought alcohol, kwaso and/or homebrew (Table 4). Overall, the most common reason participants listed for drinking alcohol was 'to celebrate' (48%), followed by 'to make me happy' and 'to socialise' (both 46%) and to combat boredom (40%). These were also the top four reasons for both male and female respondents; however, females listed socialising and combating boredom more commonly than 'to make me happy.' There were no significant differences in the proportions of male and female participants who listed each alcohol consumption motive/reason (admittedly, there were relatively few female survey respondents who reported drinking any alcohol in the previous 12 months; therefore, these findings could change with a greater number of responses from young female Solomon Islanders). However, there were also no significant differences in the responses provided according to participant age.

Table 4: Main reported motivations/reasons for using store-bought alcohol, homebrew and/or kwaso among survey participants who had used any alcohol in the past 12 months (n=297), [n (%)]*

Reason	**TOTAL** **n=297**	**Males** **n=240**	**Females** **n=57**
To celebrate	144 (48)	114 (48)	30 (53)
To make me happy	137 (46)	116 (48)	21 (37)

Reason	TOTAL n=297	Males n=240	Females n=57
To socialise with people	137 (46)	112 (47)	25 (44)
Because I'm bored	118 (40)	95 (40)	23 (40)
For fun/because I like it	82 (28)	65 (27)	17 (30)
To get drunk	74 (25)	59 (25)	15 (26)
Because I'm stressed	74 (25)	62 (26)	12 (21)
Because other people are doing it	70 (24)	52 (22)	18 (32)
Because it's there	41 (14)	34 (14)	7 (12)

**Percentages do not add to 100 because participants were allowed to nominate more than one motivation/reason for consuming alcohol*

Alcohol-Related Harms

Alcohol expenditure

Participants who had consumed any alcohol in the past 12 months reported spending a median of SBD$200 per week on store-bought alcohol, kwaso and/or homebrew during the past month (range: $0-2000). Most (73%) of those who spent any money on alcohol were unemployed. Alcohol expenditure was significantly higher among rural participants (median = $200) compared to those from urban/peri-urban areas (median = $122). The majority (84%) of participants who reported alcohol consumption in the last year reported experiencing financial problems as a result of alcohol use during that period. Male participants were significantly more likely to report alcohol-related financial problems compared to females (87% vs. 75%, respectively); however, despite rural respondents reportedly spending a larger amount of money per week on any alcohol (in the last month), there was no significant difference in the proportions of participants who reported experiencing alcohol-related financial problems in the past year according to location/area of residence.

Adverse alcohol-related social outcomes (excluding violence)

Of the participants who reported consuming any alcohol in the past 12 months and who commented on adverse alcohol-related social problems (n=296), over three-quarters (76%) reported that their use of store-bought alcohol, homebrew and/or kwaso had caused any (subjectively-defined) relationship or social problems with family members, a partner and/or friends during that time (Table 5). Although there was no significant difference between male and female respondents regarding experience of alcohol-related social problems with

others overall, female participants who had consumed any alcohol in the past 12 months were significantly more likely to report that their alcohol use had caused relationship problems with a partner during that time.

Table 5: Proportions of participants who consumed any alcohol in the past 12 months and whose alcohol use caused relationship/social problems with others during that time, according to relationship type [n (%)]

	TOTAL (n=296)	Males (n=240)	Females (n=56)
Family member/s*	162 (54)	130 (54)	32 (57)
Partner/s	159 (54)	120 (50)	39 (70)*
Friend/s	174 (59)	145 (61)	29 (52)
ANY	225 (76)	180 (75)	45 (80)

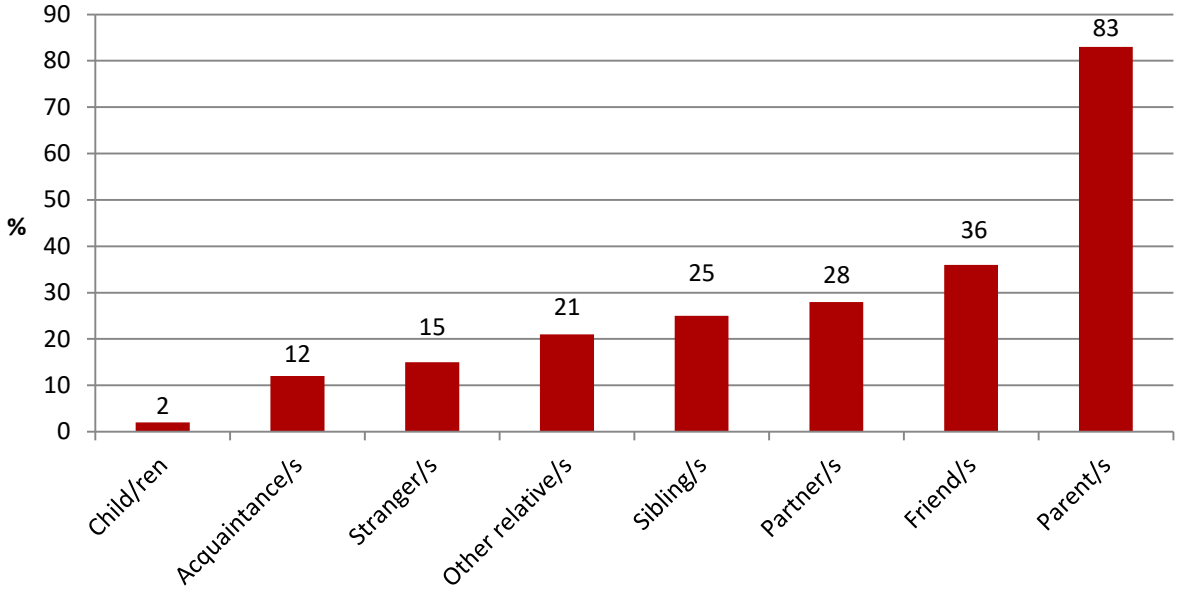
**Significant difference between male and female respondents.*

Violence/aggression during alcohol consumption

Over half (n=173, 58%) of the participants who had consumed alcohol in the past 12 months reported that they had become violent or aggressive at least once during a session of alcohol use in that period. Nearly two-thirds (64%) of this group indicated that alcohol was the cause of their violence/aggression on half-to-every occasion. Males were significantly more likely to report an instance of violence/aggression in the past year while consuming alcohol compared to females (63% vs. 40%, respectively), as were participants aged 20-24 years compared to those aged 15-19 years (69% vs. 47%, respectively). In addition, survey respondents from Choiseul were significantly more likely to report becoming violent/aggressive during a session of alcohol use in the last year (77%), compared to Malaita (63%), Western (49%) and Guadalcanal (39%) provinces. The most commonly reported victims of such violence were these participants' parents (83%),[13] as demonstrated in Figure 1 below:

Figure 1: Victims of participants (n=173) who reported becoming violent/aggressive during at least one session of alcohol use during the previous year

[13] Note that participants who reported becoming violent/aggressive during at least one session of alcohol use in the past 12 months were not asked to specify which parent (i.e., mother and/or father) experienced such behaviour.



Victims of participants' violence/aggression during alcohol use sessions (last 12 months)

Further bivariate analyses indicated a small number of additional factors that were significantly associated with becoming violent or aggressive during at least one session of alcohol consumption in the last 12 months:

- **Older age** among participants, i.e., within the 15-24 year age bracket (this finding held when age was analysed as both a continuous and dichotomous variable in relation to alcohol-related violence/aggression in the past year).
- **Lifetime use of marijuana**.
- **Residing in rural/regional areas** versus urban/peri-urban.
- **Consuming a higher number of store-bought drinks** per 'usual' session in the last four weeks.
  - Accordingly, **spending a larger amount of money on alcohol** per week in the last four weeks, in addition to experiencing **alcohol-related financial problems** in the past 12 months.
- Experiencing **alcohol-related legal problems** in the past 12 months.
- **Recording <u>less</u> cumulative satisfaction or happiness with life**, according to the PWI.

Adverse alcohol-related work and study outcomes

Over one-third (37%) of participants who reported drinking any alcohol in the last 12 months reported experiencing unspecified alcohol-related work problems during that time.[14] This was significantly more common among applicable male (39%) versus female (24%) participants; however, there was no significant difference in alcohol-related work problems according to participant age.

Forty-four percent of participants who reported drinking any alcohol in the last 12 months reported experiencing alcohol-related study problems during that period. In comparison to alcohol-related work problems, applicable female participants were significantly more likely to report alcohol-related study problems versus their male

[14] As noted in the *Method*, survey participants were permitted to subjectively define adverse alcohol-related work and study problems, but examples provided to respondents included underperforming or not completing specific tasks or requirements (e.g., homework), in addition to missing work or school due to intoxication or hangover symptoms, or failing to seek employment or education due to alcohol use.

counterparts (59% vs. 41%, respectively), and – perhaps unsurprisingly – alcohol-related study problems were significantly more common among 15-19-year-olds who reported drinking any alcohol in the past 12 months compared to 20-24-year-olds (56% vs. 35%, respectively).

Tobacco

Approximately three-quarters (76%) of participants reported lifetime use of tobacco, which was significantly more common among male survey respondents in comparison to females (84% vs. 58%, respectively). Lifetime use of tobacco was significantly higher among participants from Choiseul (90%) compared to those from Malaita (86%), Guadalcanal (73%) and Western (58%) provinces, and was significantly less common among peri-urban respondents (63%) versus those from urban (78%) and rural (79%) areas.

Sixty-nine percent of the sample reported smoking tobacco in the past four weeks; these participants (n=277) reported doing so on a median of 28 days during that time (range: 1-28); i.e., generally on a daily basis.

Betel Nut

As opposed to the other substances listed here, there was no significant difference in lifetime use of betel nut among male and female survey respondents (94% vs. 94%). There was also no significant difference in the proportion of male versus female participants who had used betel nut in the past four weeks (90% vs. 84%, respectively). Regarding the provinces, there were no significant differences in lifetime use of betel nut; however, use in the past four weeks was significantly higher among respondents from Choiseul (98%), followed by Malaita (93%), Guadalcanal (82%) and Western (81%) provinces. Lifetime use of betel nut was significantly more common among rural participants (97%) compared to those from peri-urban and urban areas (89% each). A similar trend was observed regarding betel nut use in the last four weeks among rural (92%) versus urban (81%) and peri-urban (80%) participants. Similar to tobacco, participants who had used betel nut in the past four weeks (n=351) had generally done so on a daily basis.

Marijuana

Just under half (48%) the total sample reported ever using marijuana; again, this was more common among male versus female participants (58% vs. 24%, respectively) and those aged 20-24 versus 15-19 years (57% vs. 39%, respectively). Lifetime and past-four-week use of marijuana was significantly more common among participants from Choiseul (69% and 66%, respectively) and Malaita (66% and 59%), compared to those from Guadalcanal (31% and 16%) and Western (31% and 14%) provinces. Lifetime and past-four-week use of marijuana was also significantly higher among rural participants compared to those from peri-urban and urban areas (55% vs. 43% vs. 31%, and 45% vs. 33% vs. 18%, respectively). Participants who were employed were significantly more likely to report lifetime use of marijuana use (employment was not significantly associated with past-year/month use), and lifetime, past-year and past-four-week use was significantly less common among participants who were currently studying.

Other Substances

Use of substances among participants other than those listed above was minimal:

- Six percent of participants reported ever sniffing **petrol**, most commonly in Malaita (10% of participants from Malaita) and Western province (11%). There were no differences between rural and urban/peri-urban respondents with regarding to petrol-sniffing prevalence. Three percent of participants reported using petrol in the past four weeks.
- Four percent of participants reported lifetime use of **'magic' mushrooms**, with only five participants (1%) having done so in the past four weeks.
- Four percent of participants also reported lifetime use of **'other' ethanol/methylated spirits**, with only three participants (<1%) having done so in the past four weeks.
- Two percent of participants reported lifetime use of **spray paint** ('chroming'), with 1% reporting doing so in the past four weeks.
- One percent of participants reported ever **injecting** a drug not prescribed by a doctor or other health professional, with one participant reporting injecting a drug in the last four weeks.

SEXUAL HEALTH

Eighty-two percent of participants (n=326) reported that they had ever had sex; there was no significant difference in the proportions of male versus female participants who reported ever having sex (84% vs. 78%, respectively). The median reported age at first sex was 16 (range: 9-24 years); there was also no significant difference in age at first sex between male and female respondents. The past-year sexual behaviours of participants who reported ever having sex are detailed below in Table 6. Notably, over half (53%) the number of participants who reported one or more sexual partners in the last year also reported never using a condom in that time. Of the participants who reported six or more sexual partners in the last year (n=87), 46% reported never using a condom, and 36% had only used condoms 'a little' of the time. Of participants who listed their current relationship as 'married /defacto/living together' (n=53), 45% reported currently having a casual sexual partner. Likewise, of the participants who reported being in a 'stable' or 'steady' relationship (n=191), 51% also reported currently having at least one casual sexual partner.

There were no significant associations between alcohol use (i.e., 'typical' quantity used and consumption – yes/no – of any alcohol in the last four weeks or 12 months) and frequency of condom use among participants. In addition, there were no significant associations between risky sexual practices and episodes of alcohol-related violence/aggression in the past year or GEM scale findings.

Table 6: Past-year sexual behaviours of participants who reported ever having sex (n=326) [n(%)]

	TOTAL N=326	**Males N=233**	**Females N=93**
Currently has a 'casual' sexual partner*	194 (60)	147 (63)	47 (50)
Currently has a 'regular' sexual partner	240 (74)	170 (73)	70 (75)
Number sexual partners last 12 months			
None	22 (7)	16 (7)	6 (6)

	TOTAL N=326	Males N=233	Females N=93
1-2	123 (38)	80 (34)	43 (46)
3-5	92 (28)	70 (30)	22 (24)
6+	87 (27)	65 (28)	22 (24)
Refused	2 (1)	2 (1)	0 (0)
Condom use frequency last 12 months[a]	n=302	n=215	n=87
NEVER	159 (53)	118 (55)	41 (47)
A little of the time	89 (29)	64 (30)	25 (29)
Some/half of the time	23 (8)	14 (7)	9 (10)
Most of the time	24 (8)	16 (7)	8 (9)
Every time	7 (2)	3 (1)	4 (5)

**Significant difference between male and female participants*

[a]Among those who reported one or more sexual partners in the last year.

GENERAL, MENTAL & PHYSICAL HEALTH

Personal Wellbeing Index (PWI)

Participants' average self-reported ratings across the PWI's seven life domains, in addition to the rating of their overall life and personal circumstances and cumulative PWI scores, are listed in Table 7 below in units of %SM, according to sex. In general, participants' satisfaction was lowest in relation to their lifetime achievements and highest regarding their overall life and personal circumstances. The only significant difference between male and female participants related to their satisfaction with their standard of living, with female survey respondents recording significantly higher scores on this domain (i.e., being more satisfied) than males overall.

Table 7: PWI: Average self-reported satisfaction across life domains in units of %SM (the range of results for every domain is 0-100)

Self-reported satisfaction with…	**TOTAL N=399[a]**	**Males N=280[a]**	**Females N=119**
Standard of living*	65	63	71
Health	65	64	68
Achievements in life	61	59	65
Personal relationships	68	67	69
Self-perceived safety	72	71	75
Feeling part of the community	74	73	76
Future security	66	66	67
Overall life and personal circumstances	75	74	76
TOTAL	68	67	71

[a]*Missing data for one respondent.*

***Significant difference between male and female respondents.*

When comparing participants' responses regarding the areas in which they resided at the time of interview, the only difference was self-reported satisfaction relating to future security, with participants from urban/peri-

urban areas scoring higher than those from rural/regional areas (70 vs. 74, respectively). In contrast, the variation in responses across every domain – including cumulative PWI scores – when comparing each of the four provinces was statistically significant. The average scores for each province regarding each of the PWI's domains (in units of %SM) are presented in *Appendix 3*. Broadly, participants from Western province were generally the most satisfied among the sample, recording the highest average score across every PWI domain, followed by Guadalcanal. Indeed, Western participants achieved average PWI scores of more than 80 on three domains: self-perceived safety, community connectedness and overall life and personal circumstances. Further, participants who achieved higher cumulative PWI scores were significantly less likely to have consumed any alcohol in their lifetimes, during the past year and in the last four weeks. However, there was no correlation between cumulative PWI scores and total GEM scale scores.

EQ-5D-3L: MENTAL HEALTH (ANXIETY & DEPRESSION)

The EQ-5D-3L instrument asks participants to comment on levels of anxiety and depression (i.e., none, moderate or extreme) at the time of survey administration; most (63%) respondents reported no anxiety/depression, compared to 32% who reported moderate anxiety/depression and 5% who reported being extremely anxious and/or depressed at the time of interview. There were no significant differences between male and female participants regarding anxiety/depression levels, or between younger and older participants. Likewise, there were no differences in self-reported anxiety/depression between urban, peri-urban and rural/regional respondents. Participant responses to this survey item were not significantly associated with any alcohol or other substance use, attitudes relating to gender-based violence and gender inequality, or alcohol-related violence in the previous year.

SOCIAL SUPPORT

A median ESSI score of 20 was recorded for the entire sample (range: 8-34). Overall, male respondents recorded a median ESSI score of 20 (range: 8-34) compared to a median of 21 for female respondents (range: 9-34). The difference in ESSI scores between males and females was statistically significant, meaning that, overall, female survey participants recorded higher levels of self-perceived social support in comparison to their male counterparts. Additionally, survey participants who resided in urban and peri-urban areas recorded significantly greater self-perceived social support compared to those in rural/regional areas. Participants who reported higher levels of self-perceived social support were significantly less likely to have used any alcohol in the past four weeks; however, there were no significant differences regarding lifetime and past-year use of any alcohol and number of drinks consumed in a 'usual' session was not associated with perceived social support. Lower levels of self-perceived social support were significantly associated with marijuana use during the lifetime, past year or past four weeks. There were no significant associations between self-perceived social support and involvement in alcohol-related violence in the last year or acceptability of gender-based violence and gender equality.

ATTITUDES TOWARDS VIOLENCE & GENDER EQUALITY

GEM SCALE

The entire sample achieved a median GEM Scale score of 39 (range 21-64). There was no difference in the overall GEM score between males and females (i.e., both recorded the same median and range as the entire sample), indicating similar attitudes towards gender-based violence and gender equality among both groups in general. For example, 60% of males who responded agreed or partially agreed that 'there are times when a woman deserves to be beaten,' compared to 59% of females. Notably, on a bivariate level, participants who reported lifetime and past-four-week use of store-bought alcohol were significantly more likely to record higher GEM scores, indicating less acceptability of gender-based violence and gender inequality. However, there were no significant differences in GEM scores between participants who reported any kwaso or homebrew use.

Appendix 2 lists the aggregated proportions of participants who agreed, partially agreed or disagreed with each of the Scale's 24 items. There were few differences between males and females regarding their responses to the GEM items; indeed, there were significant differences between the two groups on only four of the 24 items:

'It is the man who decides what type of sex to have' – 75% of males (who provided a response) agreed or partially agreed with this statement, compared to 60% of females;

'You don't talk about sex, you just do it' – 53% of males agreed/partially agreed, versus 40% of females;

'A woman who has sex before she marries does not deserve respect' – 59% of males agreed/partially agreed, compared to 45% of females; and,

'A real man produces a male child' – 79% of males agreed/partially agreed, versus 87% of females.

Similarly, there were only four significant differences when comparing younger versus older survey respondents around the median [i.e., 15-19-year-olds (n=205) versus 20-24-year-olds (n=195)]:

'A man can hit his wife if she won't have sex with him' – 45% of 15-19-year-olds agreed/partially agreed, compared to 32% of 20-24-year-olds;

'A real man produces a male child' – 54% of 15-19-year-olds agreed/partially agreed, versus 43% of 20-24-year-olds;

'A man should have the final word about decisions in his home' – 92% of 15-19-year-olds agreed/partially agreed, compared to 83% of 20-24-year-olds; and,

'A woman should obey her husband in all things' – 91% of 15-19-year-olds agreed/partially agreed, compared to 80% of 20-24-year-olds.

Bivariate predictors of higher GEM scores

On a bivariate level, achieving higher GEM scores (i.e., being <u>less</u> accepting of gender-based violence and gender inequality) was significantly associated with:

Older age (within the 15-24 age bracket); specifically, for every one-year increase in age, a 0.32 increase in total GEM score is predicted.

Which parents lived at home; specifically:

Participants who reported only living with their father (n=16) recorded a median total GEM score of 42.5 (range: 29-52);

Participants who only lived with their mother (n=54) recorded a median total GEM score of 39.5 (range: 23-59);

Participants who lived with both parents (n=269) recorded a median GEM score of 39 (range: 21-64); and,

Participants who lived with neither parent (n=61) recorded a median GEM score of 35 (range: 22-53).

Increased satisfaction (i.e., achieving higher scores) across every PWI domain (see below).

Lifetime use of any alcohol.

Ever having sex.

There was no significant difference in total GEM scores associated with:

Becoming violent/aggressive during a session of alcohol use in the past 12 months.

Current relationship status.

Forcing/pressuring partners into sex in the last 12 months.

Frequency of regretting sex in the last 12 months.

Enjoyment rating of sex.

Lifetime use of any other substance.

Current employment or education status.

Level of education completed.

Additional Violence/Gender Equality Items

In addition to the GEM Scale, survey participants were asked whether a husband is justified in hitting or beating his wife in certain situations. The proportions of participants who agreed or partially agreed with the occurrence of gender-based violence in the specified situations are presented below in Table 8:

Table 8: Proportions of participants who agreed or partially agreed that a husband is justified in hitting/beating his wife in the specified circumstances, excluding 'don't know' and 'refuse' responses [n(%)]

		TOTAL (N=400)	Males (N=281)	Females (N=119)
1.	She does not complete household work to his satisfaction	256 (64)	188 (67)	68 (57)
2.	She disobeys him	314 (79)	226 (80)	88 (74)
3.	She refuses to have sexual relations with him	178 (45)	141 (50)	37 (31)*
4.	She asks him whether he has other girlfriends	206 (52)	153 (54)	53 (44)

		TOTAL (N=400)	Males (N=281)	Females (N=119)
5.	He suspects that she is unfaithful	284 (71)	203 (72)	81 (68)
6.	He finds out she has been unfaithful	343 (86)	241 (86)	102 (86)

**Significant difference between male and female participants.*

Of the six situations listed above, only one resulted in a significantly higher proportion of male respondents agreeing/partially agreeing that a husband was justified in hitting/beating his wife in that circumstance compared to females; i.e., if she refuses to have sexual relations with him.

Survey participants were also asked whether a married woman can refuse to have sex with her husband in certain situations. The proportions of participants who agreed or partially agreed with a wife's refusal of sex in these situations are presented below in Table 9. There were no significant differences between male and female participants with regard to the proportions who agreed/partially agreed with any of the circumstances.

Table 9: Proportions of participants who agreed or partially agreed that a married woman can refuse to have sex with her husband in the specified circumstances, excluding 'don't know' and 'refuse' responses [n(%)]

		TOTAL (N=400)	Males (N=281)	Females (N=119)
1.	**She doesn't want to**	245 (61)	171 (61)	74 (62)
2.	**He's drunk**	310 (78)	219 (78)	91 (76)
3.	**He's sick**	249 (62)	169 (60)	80 (67)
4.	**He mistreats her**	305 (76)	208 (74)	97 (82)

FOCUS GROUP DISCUSSION FINDINGS

Target Population

Findings from the focus group discussions with target population members (i.e., young people aged 15-24 years) are detailed below according to the study's primary themes. Note that the quotes included here were taken verbatim from the written notes for each group discussion.

Substances commonly used by young people

Consistent with the survey findings, during the focus group discussions, target population members listed licit/store-bought alcohol (i.e., Solbrew, SB, Johnny Arrow, wine, hotstaf/liquor), illicit alcohol (homebrew and

kwaso), betel nut and marijuana as the substances most commonly used by young people. Tobacco was not listed by any focus group discussion participants as a substance commonly used by young people, despite most survey respondents reporting current use.

Illicit alcohol was reportedly favourable among young people due to being cheap and available, resulting in a perceived increase in use over the last 5-10 years. In contrast, one female focus group discussion participant noted that she had reverted from illicit to licit alcohol, because:

> *"The things which I have done during the time of drinking kwaso was so bad, so I turn to drink legal drinks."*

Characteristics of people who use alcohol

Focus group discussion participants noted that members of the general population who most commonly used alcohol were unemployed, young, students and male. For example:

> *"Those ones that have job just drink small time."*

> *"The young youths were the ones that involve most in drinking."*

Motivations and reasons for drinking

Young focus group discussion participants listed a number of motivations or reasons for drinking alcohol, including:

> **Peer pressure**; for example: *"Others drink because of their friends just encourage them to drink with them, so that is the time that they will drink illegal or legal alcohol."*

> To **socialise**; e.g.: *"They drink just to enjoy with friends."*

> To **relax and unwind**; e.g.: *"Drink then after they just want to listen to music then after just go rest."*

> Because they **enjoy the feeling/sensation** of intoxication; e.g.: *"Kwaso best and even so good for their body…our body feel good."*

> **Boredom**; e.g., "*Just drink because he was bored*."

Despite some participants indicating that peer pressure was a reason for using alcohol and other substances, others were unable to list people who influenced the types of substances consumed or motivations/reasons for use.

Protective factors and strategies for preventing/reducing alcohol and other substance use

Young focus group discussion participants commented on factors that were perceived to prevent, reduce or moderate alcohol and other substance use, including household rules and expectations and increased/improved familial support and guidance; for example:

> *"[Households] need to have their own regulation…to stop alcohol."*

> *"Parent must play their best role in family."*

> *"Father and mother need to have a good relationship with their children…[they] need to join church activity so that their children will look and follow their parents."*

Education initiatives ("*awareness talks*") were highlighted as important prevention and harm reduction strategies, including identification of long-term adverse consequences:

"We need to have some long terms effect so, we must have some awareness to that things, so it will result in an effective way."

"We young youths we needs some training."

Participants also highlighted the benefits of involvement in sporting activities – and the need for more such programs – in relation to generating and fostering positive relationships and reducing involvement in alcohol and other substance use and violence:

"We need some sport game so that youths can involve and work together…It is best because you are not wasting your time in other things which were involve violence."

One participant commented that involvement in alcohol-related antisocial behaviours was monitored and addressed by community leaders and gatekeepers, with offenders being held accountable for their actions:

"If you do anything the chief will report you to the cops and you will go to prison."

However, it was noted that in some instances this system could be improved:

"The chief don't have any time to talk with those people in the community to bring them together…Meeting must be monthly…They must have some effective rules."

"Chief need to attend some training program so that they will have ideas to help their community [in relation to addressing violence."

"Chief need to organise some activities for young people to bring them together."

"Chief and church leaders need to work together with these young youths to assist them with some good issues."

Lastly, an increased law enforcement presence ("e.g., Aid Post") was suggested to improve responses to problematic alcohol use and resultant harms.

Alcohol-related harms

Participants listed various negative alcohol-related consequences that impacted on young people, their families and the wider community. Personal harms included being hungover, engaging in behaviours while intoxicated that they would not normally do when sober, and adverse financial outcomes ("loss of money then after you regret"). Music being played late at night ("noise pollution"), criminal behaviours ("steal") and swearing (i.e., antisocial behaviours) was reported to impact families and the wider community. One participant noted that arguments and domestic violence could result from alcohol-related financial "mismanagement":

"He used [money] for his own purpose but don't know that the money he used was for all people in the family."

Women and children were reported to be the primary victims of violence in the community; however, participants also noted that aggression and violence could among young people "because of both were drunk."

Relevant service utilisation and other support

Focus group participants were asked to describe where young people receive assistance for issues related to alcohol and other substance use. Participants noted that there were very few services available to address such issues:

"Only Save the Children are these ones that give services."

One barrier to service utilisation was the perceived limited focus on young people:

“These [services] mainly for couples.”

Key Stakeholders

Alcohol, other substance use and gender-based violence trends and observations among young people in Solomon Islands

Key stakeholder focus group participants were generally unanimous in observing that the use of alcohol (any) by both young people and the wider population is a significant public health and law enforcement issue in Solomon Islands. Key stakeholders noted that alcohol use by young people continues to result in considerable harms – with gender-based violence being a primary and common concern – which impact individuals, families and communities. For example, one key stakeholder stated that:

“I see alcohol as the direct cause of most of the crimes [juveniles] committed…they’re mostly petty crimes, but it all contributes to the bigger picture…they’re not in a right mind when they drink.”

Key stakeholders expressed concern about what they perceived to be increased levels of alcohol use (i.e., more people using, more frequent sessions of use and greater quantities consumed) among young people in Solomon Islands. One focus group participant highlighted what they perceived to be an enhanced risk of experiencing adverse consequences as a result of earlier ages of alcohol initiation:

“If youths start drinking at a younger age, they tend to be more addicted to alcohol.”

Marijuana was perceived to be the primary illicit substance used by young Solomon Islanders (excluding illicit forms of alcohol). There was minimal awareness – or mention – of young people using other illicit drug types (e.g., methamphetamine, cocaine, heroin) by key stakeholders.

Numerous key stakeholders suggested that problematic use of alcohol and other substances, in addition to involvement in antisocial behaviours, was possibly associated with a lack of familial support, guidance and/or contact, especially in relation to parents:

“Most of those who are involved in alcohol and drugs don’t live with their parents…they build their own little market houses to come together and smoke, drink.”

“With the youths in prison, most of them come from broken homes…it all starts in the home…parents really need to step up and do the parenting.”

“Maybe parents don’t provide enough support?”

Key stakeholders’ comments regarding young peoples’ motivations or reasons for alcohol and other substance use primarily concerned a perceived excess of spare time (which could result in boredom and a desire for escapism), mainly as a result of unemployment. For example:

“The reason why people consume alcohol is…they have nothing to do.”

Use of alcohol and other substances among young people was also attributed to societal changes and shifts away from the traditional structure of families in Solomon Islands, including young people and their families moving to urban centres from smaller communities and rural/regional areas. One key stakeholder observed that:

“Now most families don’t plan how many children they’ll have…[they] can’t look after a large number of kids. They do no not find love in the home.”

Another suggested that such changes increased exposure to "outside" (i.e., Western) influences; consequently:

"They begin to neglect traditional cultures and values."

Indeed, a perceived lapse in respect for community chiefs, elders and gatekeepers was also mentioned by a number of key stakeholders to be one possible factor contributing to increased antisocial behaviours among young people.

Barriers to health/social support service utilisation for young people

Key stakeholders listed numerous issues they perceived to prevent young people from accessing formal and informal support mechanisms to address harmful alcohol and other substance use and related consequences, including gender-based violence, in Solomon Islands. These discussions also highlighted impediments to effective and appropriate service provision to adequately address these problems. The main themes included:

A lack of appropriate services. Key stakeholders mentioned that limited – or no – relevant services (e.g., drug-specific treatment) at local/community, provincial and national levels was a significant barrier to effectively combating alcohol and other substance use and related issues among young people and the general population:

"That is one problem here. We do not have the specialised services here to work with those sorts of issues. We don't have psychiatrists to help with substance use…the only places where people can, just an avenue of relief, are the churches. Only the churches I think."

"The scope of assistance provided in the Solomon Islands is not huge compared to other countries."

Adding to this concern was the perceived lack of staff at the few available and pertinent services (e.g., health clinics and hospitals) who possessed sufficient knowledge, skills and experience to respond to such problems, particularly those related to alcohol and other substance use among clients/patients.

The key stakeholders did note that there is a small number of services available to aid women and children affected by violence (e.g., the Christian Care Centre); however, it was emphasised that such assistance is required on a much larger scale in consideration of high rates of domestic/gender-based violence in Solomon Islands [32].

A limited focus on young people. Key stakeholders noted that services in Solomon Islands are generally not 'youth-friendly' or targeted towards young people, which is a major barrier to attracting young people to, and retaining them with, available programs:

"They still don't have a centre which ['street kids', young males] can go to for rehabilitation programs."

"*That is a problem…the programs do not really get young people…they just get families in general."*

In addition, such services are reportedly primarily available to victims of domestic/gender-based violence; i.e., there are minimal – or no – prevention mechanisms or rehabilitation options available to offenders:

"There are some indirect services provided by care centres…for example, Family Support Centre, but only for the victims."

"There is a lack of measures proposing ways out for men."

Geographical barriers. Key stakeholders mentioned how many young people, primarily those in rural and regional locations, are unable – or less likely – to access relevant services that are situated in urban/peri-urban areas with limited outreach efforts or resources targeting more remote areas:

"*Most youths they do not really open up to coming to town and…accessing services…most youths using alcohol and drugs live in the outer communities and they can't access services.*"

Similarly, key stakeholders discussed the inadequate coverage of relevant programs on a national level. For example, *SAFENET* – a coordinated network of different organisations working to address domestic violence, including the national police force, the Family Support Centre, Christian Care Centre, Public Solicitors Office and health clinics/medical services[15] – operates in Honiara but has *"very little capacity to work nationwide, in the provinces."*

Budget and resource constraints. The key stakeholders commonly identified limited funding and resources as one important barrier to adequately and appropriately addressing substance use and gender-based violence among young people in Solomon Islands. For example:

"There is a need for capacity building and human resources that would help tackle this problem of violence."

Indeed, the staff of one NGO reported that a lack of program/organisational funding means they sometimes need to spend their own money to assist victims of gender-based violence.

Limited coordination between services. Most key stakeholders raised the problem of a lack of communication and coordination between relevant agencies, organisations and services in attempting to address alcohol and other substance use and gender-based violence among young people and the wider community:

"[NGOs] don't seem to listen to each other."

"[There's a] sense of disjointment [sic] between services. Not much coordination.'

This reportedly resulted in unnecessary repetition of service delivery and wasting already-limited funding and resources, as described above, in attempting to respond to the same issues. Nevertheless, it was generally acknowledged that pooling available resources, personnel and expertise could possibly be an effective means of more efficiently and holistically combating substance use and related consequences among young people and the broader population in Solomon Islands. Additional suggestions offered in focus group discussions by key stakeholders are outlined below.

Addressing alcohol and other substance use and related harms among young people

In consideration of the above issues, key stakeholders were asked to describe possible methods of preventing and reducing alcohol and other substance use and related harms, with a focus on gender-based violence, among young people in Solomon Islands. Key stakeholders insisted that diverse and innovative strategies were urgently required at local/community, provincial and federal levels to prevent and reduce the pervasive consequences of problematic alcohol consumption and gender-based violence in particular. Their main suggestions regarding appropriate measures included:

Education with follow-up. Key stakeholders noted that educating young people about adverse alcohol- and drug-related consequences can be beneficial with regard to combating an entrenched culture of problematic

[15] http://www.wvi.org/solomon-islands/article/solomon-islands-women-empowered-through-women-friendly-spaces

substance use and gender-based violence in Solomon Islands; however, they stressed the need for repeat programs/interventions/workshops and follow-up (versus 'one-off' approaches) to ensure lasting and meaningful outcomes:

"It's about changing the mind-set…not everyone will be well-educated about what is good about life…there has to be a lot of training…not only once, they need to be regular, long-term. Organisations come and they do the training once, and then they never come back."

Creating opportunities. Given that alcohol and other substance use was largely attributed to young people possessing too much spare time, it is probably not surprising that key stakeholders emphasised the need for measures to keep them occupied. This included the creation of employment and education opportunities (with a view to generating and fostering knowledge, skills and experience to tackle the problem over the long-term), in addition to occupying time with sport and other activities. For example:

"[We] need more vocational schools so school drop-outs will have the opportunity to go further, get skills for employment."

"If the government subsidises some sort of opportunity…to keep them busy…they must be busy."

In relation to starting up soccer games for young people in communities in Malaita: *"It helps people engage daily…they utilise their time wisely and it lessens their time to do things that are alcohol-related and violence-related, at the same time improving their soccer skills."*

Embracing and enhancing informal mechanisms. Numerous key stakeholders mentioned the benefits of 'unofficial' community members and representatives whose actions were perceived to be effective in addressing issues relating to substance use and gender-based violence. For example:

"There are people who have experience working for NGOs like Save the Children, Oxfam, Live & Learn, who don't have an official classification like 'village elder' or 'pastor', but they will come out and help someone one-on-one when they are affected by alcohol…they can say 'I've done that, I haven't gained much.' Often these people are 'the converted'" [i.e., they are known to have experienced problematic alcohol/other substance use and related outcomes in the past].

Educating these and other individuals and services who were perceived to have the capacity to assist individuals, families and communities with regard to alcohol/other substance use and associated outcomes was a priority for some key stakeholders (including church representatives given the strong influence of religion across the country):

"Church leaders' training is only spiritual…that is not enough…they should engage in additional studies, like counselling and drug abuse, disaster risks and management, because they are the frontline in the communities…this would help to control the abuse of alcohol and related problems."

"[There is a need for] activities to strengthen the roles of chiefs and elders…there was more respect to elders in the past."

Changing current policy and practice. Key stakeholders offered a small number of suggestions relating to changing or implementing specific policy and practice to combat problematic alcohol/other substance use and related harms among young people and the wider community in Solomon Islands, including:

Regulation and policing of underage drinking in nightclubs (a problem more relevant to urban areas that reportedly results in public intoxication, involvement in antisocial behaviours and gender-based violence).

Regulation of illicit alcohol; i.e., to enable some level of control over potency and availability.

Enhanced provision of sexual health education and services, including increased access to condoms. Such measures were suggested particularly with respect to reducing the adverse outcomes of unsafe sexual practices and – indirectly – changing community attitudes regarding gender equality. Key stakeholders highlighted a particular need to address barriers to condom provision in rural and regional communities, including stigma and confidentiality/anonymity/privacy concerns.

Lastly, one stakeholder suggested the implementation of something akin to a **'national youth day' at health services and clinics** to enhance service utilisation among young people and increase awareness of issues among healthcare providers relating to youth. This stakeholder also highlighted the lack of community education available regarding alcohol and other substance use, noting that:

"*In the Honiara clinics they have a family planning day…I haven't come across one on drug abuse.*"

DISCUSSION

This research project was undertaken with the broad aim of collecting quantitative and qualitative data to investigate alcohol and other substance use and related harms among young people (aged 15-24 years) in Solomon Islands, with a particular focus on gender-based violence. To this end, 400 young people were administered a structured survey in four of the country's provinces: Guadalcanal, Choiseul, Malaita and Western province. Survey participants were recruited from rural/regional, peri-urban and urban areas. In addition, focus group discussions with target population members and key stakeholders were conducted to further explore the study's key research questions and themes uncovered by the quantitative data collection. Research findings will be used to inform initiatives designed to address such issues. The primary research themes are discussed below with respect to the study's findings:

Prevalence & Patterns of Alcohol & Other Substance Use Among Survey Participants

Rates of alcohol use among survey participants were high, with around four-fifths (79%) of the entire sample reporting use of any alcohol (i.e., store-bought alcohol, homebrew and/or kwaso) at least once in their lifetimes. Importantly, levels of alcohol use among this sample were considerably higher than those reported in previous research in relation to both young people and the wider population of Solomon Islands [10, 15, 17].

Store-bought/licit alcohol (primarily *Solbrew*) was the alcohol type most commonly consumed by respondents, with 61% of the sample reporting use in the past four weeks, followed by 46% who had drunk kwaso and 39% who reported homebrew use during that time. Participants who had used any alcohol in the past four weeks reported drinking each alcohol type on a median of eight days, or twice per week. Of particular concern was the minority of survey respondents who reported consuming alcohol much more frequently (e.g., on a daily basis), especially given the excessive 'typical' amounts of alcohol consumed in a session that were reported by the sample in general (in addition to the high potency of homebrew and kwaso). Plentiful research has demonstrated that more frequent, chronic and heavy patterns and episodes of alcohol use increase the likelihood of experiencing short- and long-term alcohol-related harms [e.g., 47, 48, 49]. Indeed, on a bivariate level, the current study's findings indicated that experiencing at least one episode of violence or aggression during a session of alcohol use in the past year was significantly associated with consuming a greater number of store-bought drinks per 'usual' session in the past four weeks, in addition to spending a larger amount of money on alcohol per week during that period. Such findings, in addition to a high rate of adverse alcohol-related consequences experienced by this study's survey respondents (see below), highlight the urgent need

to initiate and improve prevention and intervention responses to address problematic alcohol consumption among young people in Solomon Islands.

Regarding use of substances other than alcohol, current tobacco use was very common among the sample, with the over two-thirds (69%) reporting use in the past four weeks on a median of 28 days (i.e., daily). Betel nut use was ubiquitous among participants, with 94% of both males and females reporting lifetime use and 88% of the sample reporting use in the last four weeks on a median of 28 days. As with alcohol, the use of both tobacco and betel nut among this study's participants was considerably higher than demonstrated by previous research in Solomon Islands [15, 17, 26].

Nearly half (48%) of the total sample had ever used marijuana, with 37% reporting use in the last four weeks on a median of 12 days (approximately three days per week). Marijuana use was more common among participants from Choiseul and Malaita versus those in Guadalcanal and Western provinces. Lastly, use of other substances (e.g., petrol, spray paint, glue) was minimal.

Correlates and Protective Factors Associated with Alcohol & Other Substance Use

Male survey respondents were significantly more likely to report use of most of the key substances investigated by this study, including licit and illicit alcohol, tobacco and marijuana in comparison to females; however, there was no significant difference between males and females regarding the use of betel nut. This indicates a need to simultaneously address use of multiple substances among male Solomon Islanders in particular, especially given established links between alcohol consumption and gender-based violence [32]. Indeed, in their recent investigation of early substance use initiation and suicide among adolescents in four Pacific Island Countries, including Solomon Islands, Peltzer and Pengpid [16] noted that the concurrent initiation of alcohol, tobacco and other substance use should be a focus in early prevention programs with the aim of preventing subsequent suicidal behaviours.

Geographically, respondents based in urban areas were significantly less likely to report drinking any alcohol in the past four weeks compared to those in rural/regional and peri-urban areas. Further, rates of lifetime, past-year and past-four-week alcohol (any) consumption were significantly higher among survey participants from Choiseul in comparison to those from the remaining three provinces.

Two of the most commonly reported motivations for alcohol consumption among survey respondents were 'to celebrate' and 'to socialise,' highlighting some of the more positive, enjoyable and communal aspects of alcohol use for young people in Solomon Islands (when providing education about 'responsible' substance use, acknowledging that use of alcohol and other drugs is not always harmful is important for maintaining message credibility). However, other common reasons for drinking alcohol were 'to make me happy' (i.e., because they were sad) and because of boredom. The latter reason was most frequently cited by key stakeholders as a primary driver of young people using alcohol and other substances in Solomon Islands, which was attributed to high rates of unemployment and low levels of, or involvement in, education. The survey data did indicate that participants who were currently employed were more significantly likely to report alcohol use; however, employed participants were more likely to be male and older, which could explain this discrepancy. Regardless, the quantitative data demonstrated that respondents who were currently enrolled in education were significantly less likely to report lifetime, past-year and past-four-week use of any alcohol (notably, highest level of education completed was not significantly associated with alcohol usage). Marijuana use was also significantly less common among participant who were currently studying. Key stakeholders also suggested that substance use among young people was the result of a lack of support at home, peer pressure and societal shifts away from traditional values and cultures.

Notably, participants who recorded greater levels of satisfaction or happiness with their lives in general – according to the PWI – were less likely to report engaging in any alcohol use during their lifetimes, in the last

year and in the past four weeks. In addition, those who reported higher levels of self-perceived social support were significantly less likely to have used any alcohol in the past four weeks (there were no significant differences in self-perceived social support regarding lifetime and past-year use of any alcohol).

Alcohol-Related Harms Impacting Youth, Families & the Wider Community

Participants who reported using any alcohol in the past year were asked to comment on the adverse alcohol-related consequences they had experienced during that time. Most (84%) reported experiencing financial problems associated with their alcohol use, three-quarters (76%) reported experiencing any sort of alcohol-related relationship/social problem (most commonly with friends), 44% had experienced alcohol-related study problems in the last year, and over one-third (37%) reported experiencing work problems due to their alcohol use in that time.

Over half (58%) of the participants who reported drinking any alcohol in the last year reported experiencing at least one episode of becoming aggressive or violent during a session of alcohol use. Consistent with most other outcomes investigated for this study, male participants were significantly more likely to report becoming aggressive/violent while consuming alcohol in the last year compared to females. The most commonly reported victims of participants' alcohol-related aggression/violence were parents. Factors associated with aggression/violence during a session of alcohol consumption in the last year were: older age; lifetime use of marijuana; residing in rural/regional areas; consuming a higher number of store-bought drinks per 'usual' session in the last four weeks and spending a larger amount of money on alcohol per week in that time; and, recording greater levels of cumulative satisfaction or happiness on the PWI.

Formal & Informal Mechanisms for Addressing Problematic Alcohol & other Substance Use & Gender-Based Violence

The focus group discussions with the key stakeholders were crucial for identifying formal and informal avenues for young people in Solomon Islands in relation to addressing issues related to alcohol and other substance use and associated harms. Broadly, the stakeholders indicated that health, social support and law enforcement sectors at each of local/community, provincial and national levels were largely ill-equipped for preventing and responding to problematic alcohol and other substance use and gender-based violence among young people and the wider community. Consequently, there is substantial room for improvement.

Key barriers to effective service provision included: a lack of appropriate services; a limited focus on attracting young people to, and retaining them with, services; geographical barriers, particularly for individuals based in rural/regional areas; limited funding and resources; and, a lack of coordination between services. Further, key stakeholders did highlight the utility of informal or unofficial mechanisms of addressing alcohol and other substance use and gender-based violence among young people in Solomon Islands (e.g., certain community members and representatives who commonly provided assistance in relation to such issues), and emphasised that augmenting the knowledge, skills and resources available to such people (e.g., religious leaders) could be an accessible and cost-effective means of combating pertinent problems among young people and the wider community.

RECOMMENDATIONS

Note that the recommendations outlined below were formulated in consideration of limited funding and resources in Solomon Islands.

Creation of employment and education opportunities – and other activities, including sport – for young people

Boredom and an excess of spare time were cited by both young people and key stakeholders as issues that lead to involvement in alcohol and other substance use (thereby increasing the likelihood of experiencing associated harms such as gender-based violence). Previous research has demonstrated positive associations between unemployment and alcohol and other substance use in both directions; e.g., risky substance use is prevalent among unemployed individuals, and unemployment is a significant risk factor for substance use and the development of substance use disorders [e.g., 58, 59]. Ideally, sustainable, government-led approaches to generating employment and education opportunities – in consideration of relevant contexts (e.g., urban vs. rural regions) – could address this area and produce positive outcomes for young people, their families and the wider Solomon Islands community; research does point to the benefits of governments stimulating economies and addressing the adverse effects of economic downturn (e.g., quality of life, substance use) via attempts to alter macroeconomic conditions such as unemployment [60]. Currently, Youth @ Work,[16] an Australian government-funded initiative designed to generate and foster relevant knowledge, skills and employment opportunities among young people in Solomon Islands, is a well-received program; however, given that Youth @ Work is primarily Honiara-based, its scope in reaching young people in other provinces is limited in the context of reportedly-high demand.

Further, in focus group discussions both young people and key stakeholders highlighted and provided examples of the benefits of implementing sporting activities (e.g., soccer competitions, boxing clubs) in communities, including occupying time, generating skills and fostering positive relationships. Implementing similar programs on a wider scale (in urban, peri-urban and rural/regional areas) could result in additional positive outcomes among young people and the general community.

Education of professionals at relevant services and organisations

Key stakeholders acknowledged that an important barrier to adequately and appropriately responding to alcohol and other substance use and associated harms among young people and the wider community was a lack of knowledge, skills and experience among professionals and volunteers relating to such issues. Therefore, the provision of education (e.g., regarding common patterns and contexts of alcohol and other substance use, symptoms of intoxication, harm reduction measures in consideration of available resources) to representatives from relevant services and organisations could be an important step towards addressing this gap and other barriers to service utilisation by young people, such as stigma. As emphasised by stakeholders, regular/repeat education and/or follow-up would be optimal for fostering relevant knowledge and skills.

Leveraging informal mechanisms

In the context of limited funding and resources, leveraging informal mechanisms or processes could be efficient and effective means of addressing problematic alcohol and other substance use and gender-based violence in Solomon Islands. This might entail equipping community leaders and gatekeepers (e.g., chiefs, church leaders, elders) with appropriate knowledge and skills to prevent and respond to such issues; for example, informing them of relevant services and referral mechanisms.

Education of young people

This study's findings indicate that education of young people in Solomon Islands is needed to disrupt early initiation of substance use uptake, transitions to harmful substance consumption patterns, and to prevent and reduce the adverse personal and interpersonal consequences associated with alcohol and other substance use. In focus group discussions, young people suggested that education around the long-term outcomes of

[16] http://www.spc.int/en/spc-and-the-pacific-plan/1233-solomon-islands-youth-work-programme-leads-to-paid-work.html and http://www.plp.org.fj/news/youth-at-work-scoops-business-excellence-innovation-award-the-in-solomon-islands/

alcohol and other substance use could be beneficial. Harm reduction education could also result in positive outcomes.

Culturally-relevant education is also needed to change attitudes regarding gender-based violence and gender inequality among young people. Notably, although gender equality and gender-based violence were featured regularly in Solomon Islands' national newspapers at the time of writing [e.g., 50, 51-57],[17] this study's findings suggest that extra effort is required to address such issues on a national level, including changing attitudes among young people. Minimal differences in attitudes around gender-based violence and gender inequality among both male and female participants, as indicated by responses to the GEM scale, highlights the need to provide education for both genders.

Follow-up or repetitive/regular education (versus 'one-off' programs) is required to ensure that harm reduction and prevention messages are reinforced and retained.

Addressing barriers to service utilisation for young people

Stakeholders and young people identified some key barriers that prevent young people from utilising pertinent services in Solomon Islands relating to alcohol and other substance use and related harms. Two that could be addressed without significantly impacting funding and resources are a lack of coordination between services and a limited focus on young people. Initiating a dialogue between relevant services, organisations and agencies, and establishing desired goals and outcomes in the context of finite funding and resources, would be important steps towards comprehensively and holistically meeting the needs of young people and the wider population and preventing replication of service provision. Further, involving young people in discussions about how to make services more 'youth friendly' would be crucial for attracting and retaining young people with relevant programs.

Development of national guidelines for licit alcohol consumption

In Solomon Islands, addressing problematic (e.g., heavy and chronic) alcohol consumption and related harms is complicated given that use of unregulated/illicit alcohol is relatively common [17]. For example, although research suggests that raising alcohol taxes/minimum unit prices can impact alcohol consumption levels in the community [61], if this were to happen in Solomon Islands it is possible that people would simply use the cheaper – yet readily available – illicit alcohol types [1] instead of store-bought alcohol. Indeed, Power et al. [13] recently acknowledged that while licences, taxes and bans are common mechanisms for regulating alcohol consumption on an international level, in the Pacific such measures are unable to account for illicit/unregulated alcohol types (the authors noted that the implementation of standard regulatory measures in such instances has been claimed to increase illicit alcohol production). Nevertheless, as opposed to some other nations, Solomon Islands currently has no 'official' (i.e., government-endorsed) national guidelines or recommendations for consuming licit/store-bought alcohol. In Australia, for example, consuming a maximum of two standard drinks of alcohol per day is recommended for reducing the lifetime risk of experiencing alcohol-related disease or injury among adults.[18] Additional guidelines address alcohol use by children and young people and pregnant and breastfeeding women. Of course, guidelines and definitions relating to risky alcohol consumption patterns (and the definition of a standard or usual drink/quantity of alcohol) differ by country. For example, compared to the Australian guidelines detailed above, the U.S. Department of Agriculture and U.S. Department of Health

[17] Note that this period included the '16 Days of Activism Against Gender-Based Violence' campaign which likely enhanced media attention about the issue: http://www.mwycfa.gov.sb/component/ohanah/16-days-of-activism-against-gender-based-violence-2015

[18] https://www.nhmrc.gov.au/health-topics/alcohol-guidelines

and Human Services' *2015-2020 Dietary Guidelines for Americans* [62] defines drinking alcohol in 'moderation' as consuming up to two drinks per day for men and one per day for women.

Establishing realistic and context-appropriate guidelines relating to licit/store-bought alcohol use – with sufficient marketing/education of the general population [63] – could possibly impact consumption levels in Solomon Islands and inform the general community about addressing short-and long-term alcohol-related harms. Evidently, this would likely necessitate a robust, coordinated and long-term approach with commitment from multiple stakeholders from relevant sectors.

Addressing risky sexual behaviours among young people

One of the key findings of this research related to the high prevalence of risky sexual behaviours among survey respondents; e.g., sex with multiple partners with infrequent – or no – protection during the 12 months prior to interview was common. This highlights an urgent need for adequate condom provision and sexual health education among young people to prevent and reduce the adverse outcomes of unsafe sexual practices, namely the transmission of STIs and unwanted pregnancies. Evidently, key stakeholders identified barriers that need to be addressed to adequately provide sexual health education and supplies such as free condoms, including stigma (e.g., relating to religious or cultural beliefs) and confidentiality, anonymity and privacy concerns, particularly in rural/regional areas.

Further research and interventions

Given what will likely be increasing use of social media in the near future among young people in Solomon Islands, research on such behaviours could inform novel mechanisms for addressing alcohol and other substance use and related harms, in addition to other issues, among youth in the country's unique context. This has already been undertaken to an extent in delivering messages regarding gender-based violence; for example, at the time of writing, a national telecommunications carrier, *Our Telekom*, announced a three-year deal with Seif Ples Gender-based Violence Crisis and Referral Centre to broadcast information, support and anti-violence awareness text messages to customers at certain times throughout the year, including holiday periods (e.g., Christmas, Easter) and Mother's Day [51]. *Our Telekom* also sponsored a gender-based violence helpline/freecall service for Seif Ples throughout the previous year [51]. Research has demonstrated that interventions making use of social media can be effective in addressing use of alcohol and drugs and other health issues among young people [64].

STUDY LIMITATIONS

The cross-sectional nature of this study precluded the investigation of temporal relationships and causality between factors associated with, or predictive of, outcomes of interest. The targeted and convenience recruitment methods used for recruiting participants means that the sample might not be representative of young people in the communities in the provinces where participants were sampled, or of young people in Solomon Islands generally (participants were recruited from only four of the country's nine provinces). It is also possible that 'hidden' members of the target population might not have been accessed. The data collection process for this study, specifically the collection of information retrospectively regarding stigmatised topics and behaviours via face-to-face interviews, means that the data were possibly subject to social desirability bias and recall bias. Nevertheless, the data did indicate a number of issues impacting the health and wellbeing of young people, their families and the general community in Solomon Islands that need to be addressed, including: problematic alcohol and other substance use patterns (e.g., frequent and heavy use of licit and illicit alcohol and tobacco) and associated harms; high acceptability of gender-based violence; high rates of risky sexual practices; and, indicators of disadvantage and marginalisation, including high rates of unemployment and low education.

The translation from English to Pijin (in addition to other difficulties with local dialects) might have resulted in the loss of accurate context or meaning with some questions. Further, not collecting data on survey participants' partners' substance use patterns precluded the investigation of the possible influences of this factor on respondents' use of alcohol and other drugs.

Lastly, a printing error prevented the collection of some data from a small number of participants in Choiseul (the second half of the *Sexual Behaviours* section was mistakenly not printed on the first day of survey administration in this province; this section was only applicable to participants who report ever having sex).

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APPENDICES

Appendix 1: Stakeholder Organization's & Agencies who Provided Input Regarding Issues Pertinent to the Study (E.G., Alcohol Use & Violence Among Young People & Study Design

Australian Department of Foreign Affairs & Trade

Christian Care Centre

Family Support Centre

Honiara City Council

Ministry of Health & Medical Services

Ministry for Women, Youth, Children & Family Affairs

National Referral Hospital

Oxfam

RSIPF

SIPPA

South Seas Evangelical Church

World Vision Solomon Islands

Young Women's Christian Association

Youth @ Work

Appendix 2: Aggregated Participant Responses to GEM Scale Items (N=400)

GEM item		Agree n (%)	Partially agree n (%)	Disagree n (%)	Don't know n (%)	Refused n (%)
Violence domain items						
1.	There are times when a woman deserves to be beaten	170 (43)	63 (16)	158 (40)	9 (2)	-
2.	A woman should tolerate violence to keep her family together	217 (54)	70 (18)	97 (24)	9 (2)	7 (2)
3.	It is alright for a man to beat his wife if she is unfaithful*	307 (77)	21 (5)	61 (15)	8 (2)	1 (<1)
4.	A man can hit his wife if she won't have sex with him[b]	82 (21)	51 (13)	213 (53)	32 (8)	22 (6)
5.	If someone insults a man, he should defend his reputation with force if he has to	203 (51)	78 (20)	86 (22)	21 (5)	12 (3)
6.	A man using violence against his wife is a private matter that shouldn't be discussed outside the couple	301 (75)	38 (10)	46 (12)	6 (2)	8 (2)
Sexual relationships domain items						

GEM item		Agree n (%)	Partially agree n (%)	Disagree n (%)	Don't know n (%)	Refused n (%)
7.	It is the man who decides what type of sex to have[a]	174 (44)	72 (18)	103 (26)	37 (9)	14 (4)
8.	Men are always ready to have sex	243 (61)	64 (16)	60 (15)	24 (6)	9 (2)
9.	Men need sex more than women do	269 (67)	48 (12)	53 (13)	26 (7)	4 (1)
10.	A man needs other women even if things with his wife are fine	55 (14)	50 (13)	273 (68)	17 (4)	5 (1)
11.	You don't talk about sex, you just do it[a]	103 (26)	80 (20)	186 (47)	24 (6)	5 (1)
12.	It disgusts me when I see a man acting like a woman	195 (49)	49 (12)	129 (32)	16 (4)	10 (3)
13.	A woman should not initiate sex	168 (42)	72 (18)	108 (27)	40 (10)	12 (3)

GEM item		Agree n (%)	Partially agree n (%)	Disagree n (%)	Don't know n (%)	Refused n (%)
14.	A woman who has sex before she marries does not deserve respect[a]	134 (34)	61 (15)	159 (40)	32 (8)	14 (4)
Reproductive health and disease prevention domain items						
15.	Women who carry condoms on them are easy	238 (60)	37 (9)	81 (20)	36 (9)	8 (2)
16.	Men should be outraged if their wives ask them to use a condom	165 (41)	48 (12)	154 (39)	28 (7)	4 (1)
17.	It is a woman's responsibility to avoid getting pregnant	200 (50)	67 (17)	114 (29)	15 (4)	4 (1)
18.	Only when a woman has a child is she a real woman	196 (49)	71 (18)	112 (28)	18 (5)	3 (1)
19	A real man produces a male child[a, b]	110 (28)	57 (14)	179 (45)	46 (12)	8 (2)

GEM item		Agree n (%)	Partially agree n (%)	Disagree n (%)	Don't know n (%)	Refused n (%)
Domestic chores and daily life domain items						
20.	Changing diapers, giving a bath, and feeding kids is the mother's responsibility	313 (79)	24 (6)	60 (15)	1 (<1)	-
21.	A woman's role is taking care of her home and family	275 (69)	48 (12)	74 (19)	2 (<1)	1 (<1)
22.	The husband should decide to buy the major household items	229 (57)	83 (21)	80 (20)	8 (2)	-
23.	A man should have the final word about decisions in his home[b]	295 (74)	52 (13)	49 (12)	4 (1)	-
24.	A woman should obey her husband in all things[b]	279 (70)	57 (14)	57 (14)	7 (2)	-

[a]Statistically significant difference in the proportion of male vs. female respondents who agreed/partially agreed with the statement (refer: 'Attitudes towards violence and gender equality' in 'Results' for specific details).

[b]Statistically significant difference in the proportion of 15-19-year-old vs. 20-24-year-old respondents who agreed/partially agreed with the statement.

**Missing data for one respondent.*

Appendix 3: Average Participant PWI Scores in %SM Units According to Province

Self-reported satisfaction with…	TOTAL N=399[a]	C N=83	G[a] N=112	M N=105	W N=99
Standard of living	65	58	71	59	73
Health	65	61	70	57	71
Achievements in life	61	55	64	51	73
Personal relationships	68	61	69	65	75
Self-perceived safety	72	64	77	65	82
Feeling part of the community	74	65	75	71	83
Future security	66	57	70	59	76
Overall life and personal circumstances	75	69	80	65	85
TOTAL	68 (range: 3-100)	61 (range: 13-83)	72 (range: 31-100)	62 (range: 3-100)	77 (range: 13-100)

[a]*Missing data for one respondent*

Appendix 4: Examples of Previous & Current Strategies & Programs Designed to Combat Gender- Based Violence & Gender Inequality in Solomon Islands

Listed below are details of ongoing and previous work in Solomon Islands relating to combating gender-based violence among males:

Live & Learn Solomon Islands: Men Against Violence Against Women (MAVAW) program (June 2012 – December 2013)[19]

Over a funding period of 18 months, the MAVAW project worked to enlist, train and mobilise men in 27 settlements around Honiara to champion the cause to address violence and sexual abuse against women and advocate for safe and secure communities. The project aimed to train 50 male advocates and establish 10 resource and support hubs. Building on the knowledge gained throughout this program, Live & Learn grated a new project to tackle gender-based violence via engaging young men in sporting activities. A 'male advocates' guide to stopping violence against women in Solomon Islands,' entitled, "Naf Nao!" Iumi man save stopem vaelens ("Enough Now!" We men can stop violence) [65], was also developed as part of this program.

Real Men Take a Stand Against Violence – Rapid Assessment of Perceptions (RAP)

The RAP was undertaken during 2012 (August – September) with the objective of collecting relevant data to inform the implementation of the MAVAW program (see above). Using both quantitative and qualitative data collection methods, the RAP captured gendered perceptions on issues related to gender-based violence and investigated opportunities to support socially- and culturally-appropriate education and community development projects in Solomon Islands [66].

Christian Care Centre (Honiara):[20] **Male Role Model Group (ongoing)**

The Christian Care Centre, established with financial assistance from the New Zealand government, is the only safe home/refuge available for women and children impacted by domestic violence and/or gender-based violence in Solomon Islands. It offers safety and protection to women in addition to counselling services. The Centre provides women and children with accommodation, food and clothing. There is a male role model group (volunteer-based) which engages men and young males to facilitate reconciliation. The Christian Care Centre also works to address gender-based violence through awareness and education campaigns.

Sukwadi Media (film production agency): STRONG MEN – Male Role Models Media Project (new initiative; not yet fully-funded)

STRONG MEN is a new program developed by men working in law enforcement, social welfare and the media who are united by a common aim: to denounce the idea that domestic violence is a 'normal' part of 'culture'

[19] http://www.livelearn.org/projects/men-against-violence-against-women-mavaw and http://www.pacificwomen.org/news/men-take-a-stand-against-gender-based-violence/

[20] http://sistersofthechurch.org/our-houses/solomon-islands/christian-care-centre

in Solomon Islands and to work with other males to improve their understanding of drivers and protective factors and solutions to gender-based violence.

United Nations Population Fund (UNPF) and Ministry of Health and Medical Services (MHMS) vasectomy program[21]

With the intention of implementing an accessible family planning measure for males in the Solomon Islands, the UNPFA collaborated with the MHMS to develop a non-scalpel vasectomy program. One reportedly essential component of the program was 'men space', where health workers could sit with men to discuss and answer questions and issues related to sexual and reproductive health.

[21] http://www.fijitimes.com/story.aspx?id=308402

Appendix 5: Official Letter of Endorsement of the Research Project from the MWYCFA in Solomon Islands

Solomon Islands Government

Ministry of Women, Youth, Children and Family Affairs
P. O. Box 39 Honiara, Solomon Islands

Telephone: 23544 Email: hhebala@mwycfa.gov.sb Fax: 23534

6th October 2015

To Whom It May Concern:

RE: Endorsement of the research project, '433/15: Investigating alcohol, other substance use and related harms among young people in the Solomon Islands'

This letter is to notify the Alfred Health Human Research Ethics Committee of the official endorsement and support of the above research project (to be conducted by the Burnet Institute in collaboration with Save the Children) by the Ministry of Women, Youth, Children and Family Affairs in the Solomon Islands. This endorsement follows meetings with, and communication between, Burnet Institute, Save the Children and Ministry representatives about the study's objectives/aims, methodology and intended outcomes.

Please let me know if you have any questions or require additional information.

Kind regards,

Mr. Hugo Hebala
Permanent Secretary (Supervising)
Ministry of Women, Youth, Children and Family Affairs