Effects of urbanization on health behaviours of young people in Timor-Leste

*Rui Maria de Araujo**

Introduction

Urbanization is defined by the United Nations as the movement of people from rural to urban areas, whose population is projected to amount to half of the world's population in 2008, rising to about 60% in 2030[1]. As an increasingly higher number of people leave farms and villages to live in cities particularly in the developing countries, urban centres will grow at a rate previously unseen in mankind's history. According to the UN State of the World Population 2007 report, 93% of urban growth will occur in developing nations, with 80% of it occurring in Asia and Africa[2].

Rates of urbanization vary between countries, and urbanization is normally determined by individual initiatives in search for better economic opportunities. For example, in developed countries, people find it difficult to improve their standard of living beyond basic sustenance in the rural areas, because farm life is dependent on unpredictable environmental conditions, and in times of drought, flood or pestilence, survival becomes extremely problematic. Cities, in contrast, are places where money, services and wealth are centralized on one hand, and on the other, better basic services such as education, health care, water and sanitation, as well as better opportunities and variation of jobs are provided[3]. In developing countries, however, despite similarities in the motivation for rural dwellers to migrate to urban centres, unlike their peers in the developed world, they normally find themselves living in suburbs, without much access to better basic services, and often times ending up as unemployed and the most marginalized ones of their society. In addition to that, available data indicate a range of urban health hazards and associated health risks such as substandard housing; crowding; air pollution; insufficient or contaminated drinking water; inadequate sanitaztion and solid waste disposal services; vector-borne diseases; industrial waste; increased motor vehicle traffic injuries; stress associated with poverty; and unemployment[4].

In Timor-Leste, recorded information about the dynamics of urbanization dates back to the mid-1800s when, the capital city of Dili, founded on 10 October 1769, by 1860 had up to 2% of the total population of Timor-Leste[5]. The percentage of urban Dili's population during the Portuguese colonial period, however, remained almost unchanged throughout the early and mid-Tenth century, (1.8% of the total population by 1927 and 1.5% by 1970), but increased to about 18% by 1996, during the Indonesian military occupation, and by 2004, when the first population census of an Independent Timor-Leste was conducted, it was 19%[5, 6, 7].

The initial agglomeration of population in the capital city of Dili since the mid-19th century was mainly driven by colonial policy,

* *The author is currently working as a general practitioner in Dili, Timor-Leste, and was Minister for Health of the Democratic Republic of Timor-Leste, between 2001 and 2007.*

and there were no indications of rural indigenous people migrating to seek better economic advancement[5]. The rapid increase in population movement from outlying districts to the capital city of Dili, during the late 1900s and the first decade of this century, however, appear to have been caused by political, social and economic instability experienced by the rural population in Timor-Leste, firstly due to 24 years of military occupation, and secondly because of post-independence development initiatives[8]. This increasing trend of urbanization in Timor-Leste, apart from carrying obvious political, social, economic and environmental effects for the country in general, is also producing effects on the health of population and individuals, particularly in the aspects of risk-taking and health-seeking behaviours. This paper seeks to explore and discuss some of these effects of urbanization by examining practices related to alcohol and tobacco use, and to unsafe sex among young people in Timor-Leste.

Urbanization in Timor-Leste

Timor-Leste is a post-conflict country that gained its independence in 2002, after Portuguese colonial rule between the 1500s and 1975, and the liberation struggle waged by its people against Indonesian military occupation between 1975 and 1999. More than 40% of its estimated population of 1 149 000 (2010) live below the national poverty line of less than US$ 0.88 per day, with 85% of them living in rural, and mainly subsistence agricultural areas[8].

In this sense, the definition of an urban place applicable to Timor-Leste involves spatial concentration of people whose lives are organized around non-agricultural activities. By this classification, the population of Dili is by far the most urban in Timor-Leste at almost 90%. The population census of 2004 identified that the five most densely populated subdistricts of the country were located in the capital, representing 21% of the country's population, but occupying only 1.5% of its land area. By contrast, the 25 most sparsely populated sub-districts are home to 21% of the population but these cover almost 50% of the country's land area[7]. Some additional characteristics of urban Dili's population described by the census 2004 are summarized in the following paragraph[7].

Firstly, in 2004, only 54% of the total population of Dili was born in Dili, and 46% were migrants from outlying districts. Secondly, there is a concentration of males in and around Dili, reflecting a movement of males and particularly young men, to the capital in search of work. Thirdly, Timor-Leste's average household size is 4.7, but Dili's average household size is 5.2 in four of its five subdistricts, partially explaining the large number of people who have migrated from rural areas, and lastly, urbanization in Dili reflects a population that is less than 65 years old. Dili has the highest proportion of population older than 18 years who graduated from high school, with the proportion of males being higher than that of females by 7.3%. Moreover, taking the age group between 15 and 34 years as the defining age range for young people in Timor-Leste, the data from the same census show that 30% of the population belong to this age group, and 35% of them live in urban areas[9].

The social benefits of living in urban areas in Timor-Leste can be attested from information provided by the Timor-Leste Survey of Living Standards (TLSLS) conducted in 2007, which for example, showed that the percentage of population living in urban areas with good housing conditions was twice as much compared to those living in rural areas, and the average travel time to hospitals and clinics, secondary schools or bus terminals/stops, was half for those living in rural areas[8]. Additionally, the rate of highest secondary school attainment among young people in 2007, was 26.7% in urban and 9.7% in rural areas respectively, while the rate of ability to both read and write without difficulty was 66.7 in urban areas and 40.4 in

rural areas. Nevertheless, as in many other developing countries, the misconceived assumption that urban areas provide better opportunities for economic life can also be observed in Timor-Leste. The evidence from the TLSLS showed that the total unemployment rate in urban areas (11.5%) was significantly higher compared to rural areas (2%). Among young people, 7.1% in rural areas were unemployed whereas in urban areas the percentage was 41.5%[9].

Health behaviour among urban and rural dwellers in Timor-Leste

Broadly speaking, a better education attainment is associated with having a beneficial health behaviour. This means that a better educated person is more likely to avoid risk-taking behaviours leading to vulnerability to contract a disease. In urban areas, better access to health facilities, and better economic status of the population are associated with better use of health-care services. In fact examples in many countries corroborate this assumption, and in Timor-Leste, despite the lack of disaggregated information specifically focused on young people, a health care-seeking behaviour study conducted in 2008 concluded that long distances to health facilities in rural areas discouraged attendance, in particular for non-urgent conditions and preventive care. And during the wet season, even short distances could be a big problem[10]. Moreover, economic factors further complicate access to and use of health facilities in rural areas particularly due to the unaffordable costs associated with referral to another health facility, including hiring transport and accompanying the patient to the facility[10]. Similarly, urban dwellers are likely to be more responsive to healthy behaviour attitudes advocated by health authorities. The TLSLS, for example, found that 68% urban dwellers slept under a mosquito net compared to only 47.3% rural dwellers, and 25.6% children less than 5 years old were fully immunized, compared to 18% in rural areas[9].

Contrasting this positive association between living in urban settings and the likelihood of practising healthy attitudes is, however, the fact that rural dwellers in Timor-Leste perform better in respect of their purpose of visit to a health-care provider. The TLSLS showed, for example, that 39.8% rural people visited a health-care provider for treatment, and 7.8% for preventive care, compared to 27.9% for treatment, and 5.6% for preventive care in the case of the urban population[9]. This can mean a low awareness of the need to have treatment and preventive care on the part of urban citizens, which can potentially contribute to their poor health status.

Practices of risk-taking behaviour with regard to alcohol and tobacco use, and of unsafe sex among young people in Timor-Leste

Literature on alcohol and tobacco use, and on unsafe sex among young people in Timor-Leste is not widely available. Nonetheless, a range of publications provide evidence on the magnitude of the problem in the general population. Firstly, the WHO Global Information System on Alcohol and Health states that the adult per capita consumption of alcohol in Timor-Leste is around 0.4 litres of pure alcohol, and that overall, the recorded consumption has decreased in recent years. Beer accounts for 97% of alcohol consumption, wine 3% and spirits less than 1%, and there is no information about the use of surrogate alcohol[11]. There is also no information about the prevalence and patterns of alcohol consumption and its associated health risk behaviours, particularly among young people.

Secondly, Timor-Leste has one the highest prevalence rates of cigarette smoking among adolescents. The Global Youth Tobacco Survey conducted in 2006 reported that the prevalence rate of cigarette smoking among in-school adolescents in Timor-Leste was

32.4%, the highest compared to other countries in the South-East Asia Region, and perhaps one of the highest in the world. This prevalence rate was more than twice as high compared to Indonesia (12.6%) and Brazil (15.4%) and eight times higher than Cuba (4.2%)[12]. The highest prevalence rate ever reported was for Greece with 16.2%[13]. Two thirds students live in homes where others smoke, while 7 in 10 students are exposed to smoke in public places and two thirds of them have parents who smoke[12]. While there are inadequate data to draw upon, the rate of tobacco use among adults in Timor-Leste in 1995 was 53.9% in men, and 6% in women[14], while recent estimations put it to be as high as 70-80%[15]. Such high prevalence of smoking among men and in-school adolescents in Timor-Leste can be a sign of unhealthy behaviour having its origins in the post-conflict environment that is getting increasingly urbanized.

Thirdly, despite the scarcity of evidence on sexual behaviour of the Timorese people, including young people, a qualitative survey conducted in 2004 in the capital city of Dili showed that risky sexual behaviour was not the norm in Timor-Leste even among groups commonly believed to engage in such risky behaviour, such as truck drivers and students[16]. Nevertheless, the same survey also found that a high proportion of the selected population reported non-marital sex, and condom use was universally low even in commercial and anal sex. Most extramarital sex was commercial, but in addition to commercial sex partners, 22% of heterosexual high-risk men reported having sex with a "girl friend". Just 1% male clients reported to always using condom during sex with sex workers, and two thirds reported that they had never used a condom at all. Bisexual behaviour was not uncommon, because nearly half the men included in the study had had sex with men, and also reported to having had sex with women, while 12% soldiers and drivers reported to having had sex with both men and women[15].

Contrasting this seemingly urban sexual behaviour in Dili is the higher percentage of rural population's knowledge regarding ways to avoid HIV/AIDS. The TLSLS found, for example, that 50.2% rural population felt that use of condoms could prevent HIV/AIDS, compared to only 31.4% urban population, and that 56.7% rural population were of the opinion that avoiding sex with people having many partners could prevent HIV/AIDS, while only 27.2% urban dwellers felt the same way[9].

Relationship between urbanization and health behaviour, and risk-taking practices among young people in Timor-Leste

The available evidence summarized in the previous sections does not provide a clear distinction between heath behaviour and risk-taking behaviour among young people living in urban and rural areas nor any sign of association between urbanization and heath behaviour or risk-taking behaviour among young people. Nevertheless, the following highlights can be proposed. Firstly, it appears that contemporary urban agglomeration in Timor-Leste has a significant component of young people who established themselves in the capital city prior to, and during independence of the country in 2002, in search of a better life. Although there are no studies related to the effects of urbanization on their health behaviour or risk-taking practices, the rate of unemployment which they are subject to can represent a significant precursor to risk-taking practices related to alcohol and tobacco use, as well as to unsafe sexual practices.

Secondly, despite better access to health-care services and better health practices such as bednet use, the urban dwellers perform worse in respect to the purpose of visits to a health-care provider, as compared with their rural peers. Again, lack of disaggregated health-seeking behaviour data on urban and

rural young people makes it difficult to draw any association between urbanization and health-seeking behaviour of young people. Nevertheless, since 35% young people aged between 15 and 34 years in Timor-Leste live in urban areas, they may as well be reasonably included in the category of those with lower performance with regard to their purpose of visits to a health-care provider.

Thirdly, alcohol consumption, although not alarmingly high, is quite significant among Timor-Leste's population. As with other behaviours mentioned above, no studies have been conducted in Timor-Leste to ascertain the magnitude of the problem, particularly among the young people living in urban and rural areas, and yet anecdotal accounts widely circulating in the community point to a significant involvement of young urban dwellers of Dili in alcoholic-related behaviour during the periods of political unrest and violence in 2006.

Fourthly, prevalence of cigarette smoking among Timorese males, including adolescents, is the highest in the South-East Asia Region, and perhaps one of the highest in the world. No disaggregated data among urban and rural areas can be found in the results of studies that are available. Nonetheless, as 85% poor people live in rural areas, and one important enabling factor for adolescent smoking in Timor-Leste is having a pocket money of more than US$ 5 a month, it is most unlikely that rural adolescent students would be the most heavy cigarette smokers.

Finally, risky sexual behaviour is high among urban men, but knowledge of effective ways to prevent HIV/AIDS and sexually transmitted infections (STIs), including use of condom and avoiding sex with people having many partners, is higher among the rural population, as compared with people living in urban areas. Despite not providing an accurate association between urbanization and risky sexual behaviour of young men, or positive knowledge on prevention of HIV/AIDS and STIs in rural young men, these findings suggest higher risk-taking sexual behaviour among men living in urban areas.

Conclusion

The extent to which urbanization is likely to promote or discourage health-seeking behaviour and risk-taking practices among young people in Timor-Leste is difficult to be established on the basis of the available information. Nevertheless, the existing evidence suggests that the current trends of urbanization, coupled with the ubiquitous poverty in rural Timor-Leste, as well as high unemployment rates in the urban capital city of Dili, are likely to continue to exert their influence, both beneficially and harmfully, on the health-seeking behaviour patterns, and risk-taking practices of Timor-Leste's citizens. If the right policies aimed at averting the classical consequences of urbanization, including its health hazards, are to be in place, then substantial attention should be given to a more detailed evidence-gathering in this area, which could help policy-makers to devise locally-sensitive interventions for the benefit of everyone's health in a not-so-distant urbanized Timor-Leste.

References

(1) United Nations. *World urbanization prospects: 2005 revision*. New York: UN Department of Economic and Social Affairs, 2006.

(2) United Nations Population Fund. *State of world population 2007: unleashing the potential of urban growth*. New York: UNFPA, 2007. http://www.unfpa.org/swp/2007/presskit/pdf/sowp2007_eng.pdf - accessed 25 February 2010.

(3) Wikipedia. *Urbanization*. http://en.wikipedia.org/wiki/Urbanization - accessed on 25 February 2010.

(4) Moore M, Gould F, Keary BS. Global urbanization and impact on health. *International Journal on Hygiene and Environmental Health*. 2003; 206(4-5): 269-78.

(5) Gunn GC. *Timor Loro Sae 500 years*. Hongkong: Livros do Oriente, 1999.

(6) Kanwil Kesehatan Timor-Timur. *Profil Kesehatan Propinsi Timor-Timur Tahun 1996*. Jakarta: Republic of Indonesia, Ministry of Health 1996.

(7) Timor-Leste National Statistics Directorate. *Timor-Leste: census of population and housing 2004: atlas*. Dili: National Statistics Directorate, 2006.

(8) Timor-Leste National Statistics Directorate. *Population projections 2004-2050: analysis of census results, report 1*. Dili: National Statistics Directorate, 2006.

(9) Timor-Leste National Statistics Directorate. *Timor-Leste survey of living standards: report*. Dili: National Statistics Directorate, 2007.

(10) Zwi AB, Blignault I, Glazebrook D, CorreiaV, Bateman Steel C.R, Ferreira E, Pinto, BM. *Timor-Leste health care seeking behavior study*. Sydney: University of New South Wales, 2009.

(11) World Health Organization. *WHO Global Information System on Alcohol and Health* (GISAH). Geneva: WHO, 2009. http://apps.who.int/globalatlas/default.asp - accessed 25 February 2010.

(12) Kusumawardani N, Rahman K, Warren CW, Jones NR, Asma S, Lee J, Serekai M. *Report on global youth tobacco survey Timor-Leste. 2006*. http://www.searo.who.int/LinkFiles/GYTS_TimorLeste.pdf - accessed 25 February 2010.

(13) Siziya S, Muula AS, Rudatsikira E. Prevalence and correlates of current cigarette smoking among adolescents in Timor-Leste. *Indian Paediatrics*. 2008 Dec; 45 (12): 963-8.

(14) Indonesia national socio-economic survey 1995 and 2001. Chapter 1: Cigarette consumption and smoking prevalence. Jakarta, March 2004. p. 1-11. http://www.litbang.depkes.go.id/tobaccofree/media/TheTobaccoSourceBook/TobaccoBook/7_ch.1-March18.03.pdf - accessed 26 February 2010.

(15) Indigo Foundation. *East Timor, Tobacco Control Program*. Dickson ACT, 2008. http://www.indigofoundation.org/easttimor.php - accessed on 26 February 2010.

(16) Pisani E. and Dili Survey Team, HIV, STIs and Risk Behavior in East Timor: An historic opportunity for effective action (FHI-IMPACT/East Timor Project, Dili, East Timor, 2004). Dili: Family Health International, 2004.