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Editor's Notes

Population, reproductive health, family planning and other related issues hogged the headlines in 2005. The Responsible Parenthood and Population Management Bill, whose earlier version stirred a hornet's nest of passionate debate the moment it was introduced in the Lower House of the Philippine Congress in July 2004, was filed in February 2005 by no less than 111 members of Congress. The Department of Health launched the "Ligtas Buntis" (Safe Pregnancy) campaign in the first quarter of the year; while the campaign succeeded in delivering family planning services closer to the communities, it too had its fair share of critics, some of whom came from within the ranks of the department itself. In April, Pope Benedict XVI was elected the new Roman Pontiff; like his predecessor, the new pope holds conservative views vis-à-vis the population-reproductive health-family planning debate, a fact not lost on critics. In September, President Gloria Macapagal-Arroyo, in her statement at the United Nations' plenary meeting of world leaders, made headlines when she included natural family planning among the pressing issues of global terrorism, the oil crisis and the debt burden of developing countries. Also in 2005, a series of regional dissemination workshops on the results of the 2003 National Demographic and Health Survey (NDHS) was conducted throughout the country. It was, in a word, a very good year for population and related issues in terms of media coverage.

The Philippine Population Association (PPA), in its own modest way and true to its vision of promoting scientific population and related studies towards a better understanding of problems besetting our society, conducted a scientific meeting during its annual general assembly in February 2005. Four papers were presented during the meeting, two of which are being published in this issue of the **Philippine Population Review**, the PPA's peer-reviewed journal. The paper of Prof. Jones, which served as the keynote address, discussed urbanization, mega-cities and urban planning issues in Southeast Asia, with focus on the Philippines. While acknowledging the problems of inter-country comparisons due to varying definitions of urban areas, Prof. Jones provides a very instructive and interesting analysis of four mega-urban regions in Southeast Asia, the mega-urban region of Manila being one of them. The other paper presented at the same meeting, authored by Dr. Cabaraban and Dr. Linog, is a qualitative study of the reproductive health and risk behavior of male and female adolescents, coming from urban and rural areas, and of Christian, Muslim and Lumad origins.

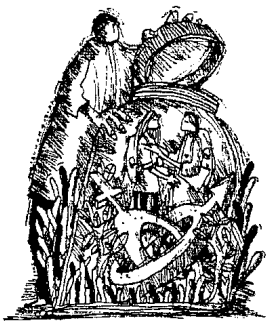
The link between fertility transition and the achievement of millennium development goals from the perspective of age-structural transition is the subject of Dr. Gultiano's paper. Using census data and other secondary sources, Dr. Gultiano describes the Philippine experience where fertility decline has been slow and the numbers of children and adolescents continue to rise, especially in the poorer segment of society, thereby making it difficult for the country to meet the dietary, educational and reproductive health of the people, as well as to provide jobs and adequate income for its working-age population.

Contraceptive use is the common topic in the papers of Dr. Lee and Mr. Manalastas. Dr. Lee describes a case study, ReachOut Foundation's three-year family planning radio campaign promoting the use of modern contraceptive methods, and analyzes the impact of the campaign on awareness and behavior of the listeners using survey data from eight rounds of Social Weather Station surveys between 2000 and 2002. The author comes to this conclusion: impact on awareness of family planning methods was significant but impact on behavior change, i.e., contraceptive use, was minimal. For its part, the paper of Mr. Manalastas is a breakthrough because it is the first study to be published by the PPR which utilizes the male sub-sample in the 2003 NDHS, which is the first round of such survey to have ever included Filipino males among its respondents. Drawing upon data from the male sub-sample of the NDHS, Mr. Manalastas explores condom use of sexually active young Filipino men during their most recent heterosexual sexual episode. The author finds that condom use by young Filipino male is low and its use is significantly related to the type of sexual partner and whether condom was used the first time a man had heterosexual sex.

Finally, PPR is pleased to publish a special report prepared for the University of the Philippine Alumni Association Council Meeting. This report of Dr. Tan et al discusses the disturbing brain drain phenomenon of the country's nurses and doctors who have become nurses. The value of this report, beyond painting a grim evidence-based scenario, is its 10-point strategic proposals which require action at the international and the national levels. These proposals make eminent sense and need urgent action by everyone concerned now, because the consequences of inaction are much too serious to contemplate.

Population discourse is alive and thriving in the Philippines. The PPR is happy to be part of this discourse.

The Editor



Urbanization, Megacities and Urban Planning Issues: The Philippines in an Asian Context*

Gavin W. Jones[1]

Abstract

The second half of the 20th century saw an unprecedented trend in urbanization the world over. Throughout Asia, there was a marked increase in the urban percentage of the population; urbanization was occurring in a period of historically unprecedented rate of overall population growth. This paper looks at the urbanization phenomenon in South-East Asia, focusing on the mega-urban regions in four countries: Jakarta in Indonesia, Bangkok in Thailand, Ho Chi Minh City in Vietnam and Manila in the Philippines. The author defines a mega-urban region as composed of the "core" (population density exceeding 5,000 per sq. km.), the "inner zone" (population density exceeding 1,000 per sq. km. and with employment in agriculture less than 10%), and the "outer core" (the rest of the areas surrounding the core and the inner zone, where the population engaged in agricultural employment accounts for less than 40%). Given this definition, Manila in 2000 was ranked first in the following categories: most populous core, most populous mega-urban region, highest percentage share in the national population, and highest total fertility rate.

Keywords: urbanization, mega-urban region, core, inner zone, outer zone, urban governance

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* Paper prepared as keynote address at Scientific Meeting and General Assembly, Philippine Population Association, Manila, 5 February 2005.

Urbanization is the process by which an increasing proportion of the population lives in urban areas. The level of urbanization is the proportion of population living in urban areas. Urbanization needs to be distinguished from urbanism, a term referring to the style of life usually found in large urban centers. The main issue in studies of urbanization is to determine what constitutes an urban area. In medieval Europe or China, it may have been easy to distinguish between towns – generally tight-knit settlements, often fortified to enable them to be protected from attack – and rural areas. This is no longer the case, either in the developed or the developing world, largely because transportation developments have made it possible for people to reside a considerable distance from their place of work.

Studies of urbanization are forced to rely on the definitions of urban areas adopted in each country. These vary considerably, thus complicating inter-country comparisons. Moreover, many areas, particularly those on the outskirts of large cities, are no longer easy to classify in terms of a rural-urban dichotomy. There is great differentiation within areas defined as urban, and likewise for those defined as rural. It has been argued that a more complex breakdown of localities according to degree of urbanness or ruralness is needed (Champion and Hugo, 2004).

Historical trends

Although in 1950, only 30% of the world's population were living in urban areas, half the population of the world will be urban in 2007. The second half of the 20th century was therefore a highly significant period in the history of world urbanization.

Some Western countries had already reached a 50% level of urbanization in the second half of the 19th century. Such countries therefore have a long history as predominantly urban populations. Some Latin American and West Asian countries, as well as Japan, have been predominantly urban for half a century or more, whereas most of the Asian and African countries that are presently predominantly urban have reached that status only during the past two or three decades. This does not mean that there is no tradition of urbanization in Asia. In China, for example, urban traditions go back to antiquity. In South-East Asia, cities were substantial in pre-colonial times and at least one-fifth of the population of the Malay Peninsula was urban in the 16th century (Reid, 1993, Chapter 2).

Nevertheless, by the middle of the 20th century, there were sharp differences in levels of urbanization between, on the one hand, the entire continents of Europe and North America and 'new world' Europeanized countries such as Argentina, Chile, Uruguay, Australia and New Zealand; and on the other hand, Asia, Africa and the rest of Latin America. In Asia, only Japan, and a few city states and oil producers had reached 50% urban. The general situation by continent is shown in Table 1.

TABLE 1. Proportion of the population living in urban areas and rate of urbanization by major area, 1950-2030

	Percentage urban				Rate of urbanization**		
	1950	1975	2000	2030 (proj.)	1950-75	1975-2000	2000-30
World	29.7	37.9	47.2	60.2	0.98	0.87	0.83
Africa	14.7	25.2	37.2	52.9	2.18	1.65	1.21
Asia	17.4	24.7	37.5	54.1	1.41	1.60	1.25
Southeast Asia	**14.8**	**22.3**	**37.5**	**56.5**	**1.64**	**2.09**	**1.36**
Europe	52.4	67.3	73.4	80.5	1.01	0.42	0.33
Latin America *	41.4	61.4	75.4	84.0	1.58	0.83	0.33
North America	63.9	73.8	77.4	84.5	0.58	0.18	0.30

Source: United Nations, 2003.
* Including Caribbean
** The rate of urbanization is the growth rate of the proportion urban

Urbanization was a universal phenomenon in the late 20th century; throughout Asia, there was a marked increase in the urban percentage of the population, and even more so in urban population growth rates, as urbanization was occurring in a period of historically unprecedented rates of overall population growth, albeit slowing over the last decades of the century. So far, Asia has only reached the levels of urbanization attained in Latin America in the 1940s. Whether it will follow the very rapid urbanization that Latin America experienced over the 1950s and 1960s will depend on many factors, particularly the pace and style of economic development.

Asian urbanization

Urbanization in Asia is at the bottom of the ranking of continents, only slightly above that in Africa, although the enormous differences between Asian countries renders an "all-Asia" figure almost meaningless. Japan and Korea, at around 80% urban, and some of the oil states of the Middle East represent the upper bound of Asian urbanization. At the other extreme

are Nepal at 12% and Cambodia at 17% urban. These extreme cases do reflect very real differences. In between, however, serious doubts must be raised about some of the differences in levels of urbanization indicated by figures using national definitions of urbanization, as will be discussed below. Table 2 shows the differences in levels of urbanization between the largest Southeast Asian countries.

TABLE 2. Trends in proportion urban, various Southeast Asian countries

Country	1950	1975	2000	2030 (proj.)
Indonesia	12.4	19.4	41.0	63.7
Malaysia	20.4	37.7	57.4	72.7
Thailand	10.5	15.1	31.1	n.a.
Philippines	**27.1**	**35.6**	**58.6**	**75.1**
Vietnam	11.6	18.8	24.1	41.3
Myanmar	16.2	23.9	27.7	46.6
Cambodia	10.2	10.3	16.9	36.1

Source: United Nations 2003; for Thailand in 2000, population census.

Urbanization levels and trends in Asia basically reflect the structure of the economies of Asian countries. A high level of urbanization can only be expected when an economy has experienced a major shift in its industrial structure, such as occurred in countries such as Japan and the Republic of Korea. A review of the 1980-2000 period suggests that the period of most rapid urbanization may be yet to come in much of Asia (see United Nations, 2001, Table A.2). Urbanization over the 1980-2000 period was not spectacular in South Asia, or in some of the countries of South-East Asia. This partly reflected the steady rather than rapid economic growth in these countries, as well as the inability of the official statistics in many countries to capture the urbanization trends accurately.

Although economic growth in Asian countries has not always been as rapid as hoped, the "Asian tigers" (Republic of Korea, Taiwan, Hong Kong and Singapore) achieved spectacular economic growth over the last three decades of the 20th century[2], and some other countries (especially Thailand, Malaysia and Indonesia) also grew very strongly. This growth was sharply interrupted by the Asian economic crisis beginning in 1997, although China has continued to be a stellar economic performer, and India's economic performance has improved considerably (Asian Development Bank, 2002). Even in the Asian countries that have not grown so rapidly, however, social changes and transformation in living conditions have been far-reaching. For example, the percentage of Indian villages with access to electricity grew from less than 5% in the 1940s to 84% in 1992 (Jones and Visaria, 1997: 13). School enrollment

ratios have increased in virtually all countries and other social indicators have shown considerable improvement (see World Development Indicators published by the World Bank, and the Human Development Index published by the UNDP).

I have argued elsewhere (Jones, 1997) that the official figures on urbanization in South-East Asia do not reflect the extraordinary extent to which 'urban' facilities have permeated rural areas.

> In the 1960s, isolated villages in most of the region were truly isolated, both in terms of transport and communications. In areas such as Thailand's northeast, most of Indochina, and most of rural Philippines and Indonesia, roads were few, and often impassable in the wet season. Lack of roads and the poverty of villagers meant that public transportation was embryonic at best. Radios were rare and TV was unknown. Villagers' main source of information about the outside world was the newspapers that occasionally found their way into the village. In Java, by the 1990s, there remained major differences between rural villages close to major cities and those more isolated in mountainous areas or in some of the poor limestone areas of the south coast. But the true isolation of the 1960s had vanished. Road access had improved, public transport had been revolutionized by the ubiquitous minibuses which ply between towns and rural areas, and radio and TV communications had villages in touch with the same programmes watched by their city compatriots. The expansion of education had brought literacy and heightened aspirations to the most isolated areas.

Despite the transformation of living conditions in the countryside in many Asian countries, the prevalent image that middle class city dwellers (especially government officials) have of rural folk tends to be quite negative (reflected by the pejorative Indonesian term '*kampungan*', suggesting that somebody behaves crudely, like a country bumpkin). In most Asian countries, because of the recency of the time when the proportion of the population living in urban areas came to exceed even one-fifth, a substantial urban proletariat, divorced from any rural roots, is yet to develop. There is a great deal of movement back and forth between cities and rural areas at times of major festivals and holidays, not to mention patterns of circular migration that often have their roots in dry season underemployment in key rural areas.

Problems of inter-country comparisons

It is generally assumed that, at a crude level of generalization, the level of urbanization in a country will be correlated with its level of economic development as reflected in per capita

income levels, proportion of non-agricultural employment, and similar indicators. But this turns out not always to be the case, when official figures on urbanization are compared. Many examples could be used, but a particularly striking one is the Philippines-Thailand comparison in Table 3.[3]

Not only has the excess in percentage urban in the Philippines compared with Thailand been widening over time, but this has been happening at a time when Thailand's economic development was running rapidly ahead of that in the Philippines. In other words, the widening in the differential in percentage urban is precisely the opposite of what might have been expected on the basis of the usual correlation between economic development and urbanization.

To discover possible reasons, we need to examine the definitions of urban areas adopted in the two countries. These are as follows:

Philippines: All cities and municipalities with a density of at least 1,000 persons per square kilometre; administrative centres, barrios of at least 2,000 inhabitants, and those barrios of at least 1,000 inhabitants which are contiguous to the administrative centre, in all cities and municipalities with a density of at least 500 persons per square kilometre; and all other administrative centres with at least 1,000 inhabitants which have predominantly non-agricultural occupations and possess certain minimal urban facilities.[4]

Thailand: Municipalities in Thailand have special administrative status, and not all towns are so defined. Non-municipal towns are designated 'sanitary districts' (subdivided as urban and rural sanitary districts). Some of these are quite large, indeed the populations of some of them exceed 20,000. Yet until 1999, according to the Thai definition, such towns were not urban! The designation of a growing sanitary district as a municipality was a rare event in Thailand; indeed, between 1947 and 1989, the number of municipalities rose only from 117 to 131, despite the substantial growth in population and urban functions of many small and medium sized towns during the intervening period. By contrast, the number of sanitary districts almost doubled – from 439 to 862 – between 1960 and 1989 (Boonpratuang et al., 1996).

The key to the difference is that the Philippines has a much more inclusive categorisation of urban areas than does Thailand. In the Philippines, small villages with populations of only 1,000 are considered urban. Therefore, the comparison of Thailand and the Philippines' level of urbanization using the official definitions is becoming increasingly meaningless.

There were political and administrative reasons why so few of Thailand's sanitary districts had been upgraded to municipalities. Sanitary districts were under tighter control of the provincial governor than are municipalities, which had popularly elected governments (Archavanitkul, 1989: 24-26). The costs of services which had to be provided to a municipality were also higher (Goldstein, 1977: 58).

TABLE 3. Comparison of Philippines and Thailand: development indicators and level of urbanization

	1960	1970	1980	1990	2000
Per capita income:					
Philippines	295	410	690	730	1040
Thailand	200	380	670	1570	2010
% male employment in agriculture					
Philippines	59	57	62	53	47
Thailand	78	75	72	64	56*
% urban:					
Philippines	30.3	33.0	37.5	48.8	58.6
Thailand	12.5	13.3	17.0	18.7	31.1
Difference in % urban: Phil.-Thail.	17.8	19.7	20.5	30.1	27.3

Source: Per capita income: World Bank, World Development Reports. 1970 = 1976
Employment figures: Thailand: population censuses, Philippines, from Herrin and Pernia 2000,
Table 12 Urbanization figures: United Nations 2003 (for 2000, Thailand population census)
GNP figure for 1990 is actually 1991
* Both males and females

Clearly, a more realistic figure for Thailand's urban population was needed. A strong case was made for considering urban sanitary districts with populations exceeding 5,000 as urban, based on evidence that there is a continuum of urban characteristics between municipalities, urban sanitary districts, rural sanitary districts and rural areas, with urban sanitary districts being distinctly more 'urban' than 'rural' according to a range of measures (Goldstein and Goldstein, 1978; Archavanitkul, 1989; Kirananda and Surasiengsunk, 1985). Such an adjustment would have raised Thailand's level of urbanization from 14.7 % to 22 % in 1970, from 18 % to 26 % in 1980 and from 19 % to 27 % in 1990. This level would still have been on the low side, especially for 1990, but it would no longer have been so strikingly inconsistent with levels in other comparable countries.

Reflecting growing dissatisfaction with the official designation of urban places in Thailand, a major administrative reorganization took place in 1999 whereby all sanitary districts were upgraded to municipal status, raising the total number of municipalities to 1,081, and the resulting proportion urban in the 2000 Population Census to 31%. The figures in Table 3 show that even after this adjustment, the discrepancy between Thailand and the Philippines remains wide. There are two main reasons for this. One is that in Thailand, the *tambon* (i.e., sub-district) administrative organizations continue to be designated rural, although some of

them, especially those just outside municipalities, have distinctly urban characteristics. The other is that the Philippines, compared not only with Thailand but also with other countries with higher or roughly equal levels of economic development, uses very generous criteria in allocating urban status to particular localities.

The case of Malaysia

Malaysia is a rapidly industrializing country, and its levels of urbanization reflect this. Malaysia's recorded level of urbanization in 2000 (62%) is more realistic than the Philippines' 59%. Throughout the 20th century, Peninsular Malaysia was steadily urbanizing. Between 1921 and 1970, its urban population grew six-fold, compared with only a three-fold increase for the population as a whole. Between 1947 and 1970, the urban structure changed considerably, with the relative stagnation of Penang when compared with Kuala Lumpur, Ipoh and Johor Bahru; emergence of more large 'suburban' towns in the vicinity of large cities; and substantial growth in the towns of Johor, the east coast and interior Pahang (Sidhu and Jones, 1981: 15).

During the period since 1970, the centre of gravity of Malaysia's population has moved decisively from rural to urban areas (Table 4). In 1970, little more than one quarter of Malaysia's population lived in urban areas; in 2000, this share was approaching two thirds. In 1970, of the major administrative divisions, only Kuala Lumpur was more than two-thirds urban, whereas by 2000 it had been joined by Melaka, Pulau Pinang, and Selangor, with Johor very close. Even in those states that remained predominantly rural in 2000, the urban shares were in all cases above one-third, and much higher than had been the case in 1970.

Urbanization has led to fundamental changes in the Malaysia's development context. Even in those states that remain most heavily rural – such as Kedah, Kelantan and Pahang – a reasonably large city is located within the state, giving rural dwellers access to its services. Another notable development is the evolution of the Kuala Lumpur-Klang Valley metropolis into a mega-urban region spreading over large parts of the state of Selangor, with a total population of almost five million. This fulfils Sidhu and Jones' prediction that by the end of the century, the Kuala Lumpur urban agglomeration would 'almost equal Singapore in population' (Sidhu and Jones, 1981, fn. 36, p. 27). If the areas of Singapore's "extended metropolitan region" located internationally in Batam in Indonesia and Johor Bahru in Malaysia are added to Singapore's population, Singapore's extended metropolitan region would have something over five million population.

It might be noted that the Kuala Lumpur mega-urban region is another case where the official boundaries have long led to a distortion of analysis of urbanization in Malaysia. Kuala Lumpur's official population in 2000 was only 1.38 million, and some of the surrounding urban areas, although in reality part of this one mega-urban region, are listed among Malaysia's

TABLE 4. Population and percentage in urban areas by state, Malaysia, 1970 and 2000

State	Population	% urban	
	2000 ('000)	1970	2000
Johor	2,741	26	65
Kedah	1,650	13	39
Kelantan	1,313	15	34
Melaka	636	25	67
Negeri Sembilan	860	22	53
Pahang	1,288	19	43
Perak	2,051	28	59
Perlis	204	0	34
Pulau Pinang	1,313	51	80
Sabah	2,603	17	50
Sarawak	2,072	16	48
Selangor	4,189	10	87
Terengganu	899	27	49
Kuala Lumpur	1,379	100	100
MALAYSIA	**23,275**	**27**	**62**

Source: Population censuses

largest cities. Analysis of the urban size hierarchy in Malaysia that fails to recognize this leads to a highly distorted reflection of reality.

Mega-urban regions (MURs)

South-East and East Asia contain some of the world's largest mega-urban regions. Jakarta and Manila, if we include the zone outside the official metropolitan area that has rapidly urbanized and forms an extension of its built-up area, have populations not much smaller than that of Australia. It is important that we consider such mega-urban regions in their entirety.

There is a perception that these cities are no longer growing rapidly, and that in fact their share of the national population is declining. This perception is based on continued use of official metropolitan boundaries in studying their growth trends. The fact is that the spread of urban activities disregards existing metropolitan boundaries, and in the case of these cities, has gone well beyond these boundaries. The population growth rate in areas outside the

metropolitan boundaries is frequently much higher than that inside the boundaries. When these mega-urban regions were smaller, their core areas frequently had relatively slow growth, and their outer areas faster growth, but at that time both core and outer areas were contained within the metropolitan boundaries. Hence the growth of the metropolitan population took account of both the slower core growth and the faster peripheral growth. But with the further expansion of these cities, the peripheral areas with faster population growth are in many cases almost entirely outside the metropolitan boundaries. Therefore the growth of the metropolitan population may be quite slow, but this should not be interpreted to mean that mega-urban growth is slowing. Such an interpretation should only be made when the growth rate of the extended metropolitan region as a whole has been carefully studied, and found to be declining.

Studies of the dynamics of growth of the largest mega-urban regions in South-East Asia have already been conducted, utilizing data from the 1980 and 1990 population censuses and the 1995 inter-censal survey in the case of Indonesia (Jones et al., 2000; Mamas et al., 2001). A more recent study has examined the trends based on comparison of the 1990 and 2000 population censuses, and some key results from that study will be reported here.[5]

Delineation of core, inner and outer zones

The delineation of zones according to criteria with some analytical meaning was basic to the study. The aim was to adhere as closely as possible to the following criteria, though obviously units not fully meeting the criteria sometimes had to be included in a zone if they were contiguous to units which did meet the criteria:

Core:

population density should exceed 5,000 per sq. km.

Inner zone:

Population density should exceed 1,000 per sq. km.[6]

% of employment in agriculture should be less than 10 %

Outer zone:

In most cases, the outer zone represents the remainder of the administratively defined regions surrounding the core and the inner zone; for example, for Jakarta, the remainder of the Jabodetabek area; for Manila, the remainder of the provinces of Rizal, Laguna, Cavite, Batangas, Pampanga and Bulacan. In the cases of Bangkok and Ho Chi Minh City (HCMC), the boundaries of the outer zone were defined at the district level. The aim was normally to exclude areas with more than 40% of employment in agriculture.

In the case of Jakarta, the availability of data giving an 'urban score' for every village provided the basis for mapping patterns of villages according to 'degree of urbanity' to assist in drawing the border between the inner and outer zones (for details, see Mamas et al., 2001).

Size and growth of the mega-urban regions of South-East Asia

Table 5 gives the basic information on area, size and population growth rates for the MURs included in the study. As can be seen, the populations of the cores in 2000 ranged from 3.2 million in HCMC to only slightly under 10 million in Manila. These figures can be seen as a 'minimal' estimate of the metropolitan population of each of the cities. At the other end of the scale, a 'maximalist' estimate would be the figures including the inner and outer zones, which range from 5 million in HCMC to over 20 million in both Manila and Jakarta. But since the outer zone includes areas that are still truly rural, the figure that reflects more accurately the extent of the urbanized area of the cities and their surrounds is the figure for the core plus the inner zone. This ranges as follows (in '000):

HCMC	4, 281
Bangkok	8,256
Manila	16,245
Jakarta	17,782

In most cases, most of the inner zone lies within 30 kilometers of the centre of the city, and most of the outer zone lies within 50 kilometres of the city centre. However, there are considerable extensions of the inner zones beyond a 30-kilometer radius, in particular along key transportation routes, as evident in the cases of Jakarta and, even more clearly, Manila. In Jakarta, the development of these transportation routes reflects the existence of subsidiary urban nodes in Tangerang, Bogor and Bekasi, which in turn have grown rapidly once linked to Jakarta by expressways. In Manila, the development of the north and south superhighways reflected both the direction for the most efficient expansion of the city, as well as providing needed linkages with other parts of Luzon.

Actually, the total area of Manila's MUR is considerably larger than that of any of the other MURs, mainly because of the very large area included in its outer zone, as the result of choosing to delimit this zone according to provincial boundaries. This highlights the fact that the figures presented above for the core plus the inner zone are the most appropriate for reflecting the population of the heavily built-up area of the megacity.[7]

The areas of the cores are comparable, except for HCMC, which is considerably smaller. This appears to reflect reality, as this is by far the smallest of the four cities. Its inner zone is also, in reality, smaller than those of any of the other MURs.

Table 5. Basic data on the Asian mega-urban regions, 1990 and 2000

	Area (sq. km)	Population		Density (per sq. km.)		Population growth rate (av. ann.) 1990-2000
		1990	2000	1990	2000	
JAKARTA						
Core	662	8,223	8,347	12,421	12,610	0.2
Inner zone	2,374	5,434	9,435	2,289	3,975	5.7
Outer zone	3,139	3,442	3,407	1,097	1,085	-0.1
Total	**6,175**	**17,098**	**21,190**	**2,769**	**3,432**	**2.1**
Indonesia						**1.5**
BANGKOK						
Core	876	5,445	5,876	6,215	6,709	0.8
Inner zone	1,907	1,596	2,380	837	1,248	4.1
Outer zone	4,465	1,593	2,163	348	472	3.1
Total	**7,248**	**8,634**	**10,419**	**1,172**	**1,414**	**1.9**
Thailand						**1.4**
MANILA						
Core	633	7,907	9,880	12,551	15,642	2.3
Inner zone	3,105	4,183	6,365	1,345	2,047	4.3
Outer zone	8,323	3,819	5,368	461	648	3.5
Total	**12,061**	**15,909**	**21,613**	**1,324**	**1,641**	**3.1**
Philippines						**2.1**
HO CHI MINH						
Core	170	2,320	3,203	13,647	18,841	3.8
Inner zone	617	904	1,078	1,465	1,747	1.9
Outer zone	1,308	700	756	535	578	0.8
Total	**2,095**	**3,924**	**5,037**	**1,873**	**2,404**	**2.8**
Vietnam						**1.7**

Note: HCMC populations are for 1989 and 1999.

In both the core and the inner zone, population density is lowest in Bangkok. One possible interpretation of this is that the boundaries for both core and inner zone in Bangkok were set somewhat wider than they might ideally have been for comparison with these zones for the other cities. However, the fact is that almost irrespective of where the zones were set, Bangkok's population density would have showed up as lower than densities in the other cities. Bangkok and its MUR are simply not as densely populated as the other cities in the study. The core in HCMC was the most densely populated of all, suggesting that for comparison with the other cities, it might have been better to include some additional areas in the core. However, the inner zone of HCMC, which again is the smallest in area of any of the MURs studied, is not especially densely populated compared with the other MURs. Again, then, this reflects the fact that HCMC is not as large a city as the others included in the study, although the evidence that a very substantial population was missed by the census in HCMC complicates this assessment.

The final column of Table 5 shows growth rates for the zones of the four cities and for the MUR as a whole. The typical pattern is for the growth rate in the inner zone to exceed by a considerable margin the growth rates in the core or the outer zone. This pattern is found in Jakarta, Bangkok, and Manila. However, the pattern in HCMC is different, with the fastest growth rate recorded in the core.

Particular interest attaches to the rate of population growth in the core, because in most cases this is defined to include the official metropolitan area. In some cases, this rate of increase is quite slow – indeed, it is close to zero in Jakarta (and was actually negative over the 1995-2000 period), and well under 1% per annum in Bangkok. However, it remains quite high in Manila and HCMC, in each of which it is above the rate of population increase for the country as a whole.

Within the core (whose area, it must be remembered, is very large in most of the cities – over 600 sq. km. in three of them), population growth rates varied considerably, with a tendency for a significant redistribution from the overcrowded central urban districts to the outer part of the core. In the case of Manila, the population of the core as a whole increased by over 2% per annum over the 1990s. But one of the constituent municipalities of the core (Pasay City) declined slightly in population over the decade, and another (San Juan) had a smaller population in 2000 than in 1980. In Jakarta, where there was no growth in the core as a whole, major population declines were registered for some of the more crowded districts.

The population growth rate of the inner zone is above the national population growth rate in all cases, and in the cases of Jakarta, Bangkok, and Manila, well above it and also well above the rate of population increase in their other zones. The outer zone growth rates are more variable. In Jakarta, there was no population growth at all in this zone, and in HCMC only slow growth. The lure of the core and the inner zone for migrants from the outer zone was no doubt a major factor in both cases. But then the outer zone population growth rates

were quite rapid in Bangkok and Manila. This appears to reflect the rapid industrial development in parts of the outer zone, as well as, in the case of Manila, continuing high rates of natural increase of population.

It is important to stress that with the exception of HCMC, the overall impact of adding the population of the inner and outer zones to that of the core to assess population growth in the MUR as a whole is to raise the rate of growth above that of the core alone.

This raises another question. To what extent has the growth of the MURs over the 1990s been simply a growth of the zones outside the core, leaving the core to hold a decreasing share of the MUR population? This is examined in Table 6. The picture differs greatly between the three MURs of Jakarta, Bangkok and Manila, and the 'late comers' to end-of-century mega-urban growth, HCMC. In the first group, by far the largest part of population growth over the 1990s occurred in the non-core zones (indeed all of it in the case of Jakarta), and the share of population living in the core declined. By contrast, in HCMC, the core's share of population actually increased over the 1990s.

MUR population growth in the context of national population trends

The share of the MURs in national populations varies enormously, ranging from 6.4% in the case of HCMC to 28.6% for Manila (see Table 7). The share is held down in the case of Jakarta by the presence of other large cities in this large and populous country,[8] and in the case of HCMC by the strange shape of the country, almost guaranteeing that one large city would emerge in the north and one in the south. The share of the MUR's population in the national population, though impressive in the cases of Manila and Bangkok, is far exceeded by their share in the national economy.

TABLE 6. Non-core regions of the MUR: share of MUR population 1990 and 2000 and share of MUR population growth 1990-2000

	Jakarta	Bangkok	Manila	HCMC
% outside core 1990	51.9	36.9	50.3	40.9
% growth outside core 1990-2000	97.0	75.9	65.4	20.7
% outside core 2000	60.6	43.6	54.3	36.4

TABLE 7. Share of MURs in national populations (%)

	Jakarta	Bangkok	Manila	HCMC
1990	9.4	15.8	26.1	5.9
2000	10.0	16.6	28.6	6.4

The growth rate of the MUR is in every case above that of the national population, and in most cases well above it. This is an important finding. All of these MURs are increasing their share of the national population (see Table 7), contrary to the conclusions reached by some observers who have used the population of the officially defined metropolitan area to conclude that many megacities have passed their period of rapid growth[9] and are holding a declining share of national populations.

As shown in Table 8, when the population of the core plus the inner zone is used to give the best reflection of the population of the actual built-up area of the MUR, the higher growth compared to that of the national population is even more apparent in the cases of Jakarta and HCMC than when the total MUR population is used. In Manila, though, it makes little difference whether the outer zone is included or not, and in the case of Bangkok, exclusion of the outer zone reduces the growth rate of the remaining MUR.

The key point is that, whether the more or less restrictive definition of a MUR is used, the growth rate of the six MURs studied exceeded that of the national population over the 1990-2000 period. This is convincing proof that the process of concentration of their countries' populations into these MURs had not ended during this decade, as some have argued.

TABLE 8. Population growth rate in the MUR, compared with country or region population growth rate and urban population growth rate

City	Population – core plus inner zone		Growth rate (av. ann. -%)			
	1990	2000	Core plus inner zone	Total Mega Urban Region	Country or region	Urban *
Jakarta	13,657	17,782	2.7	2.1	1.5	4.2
Bangkok	7,041	8,256	1.6	1.9	1.4	2.5
Manila	12,090	16,245	3.0	3.1	2.1	2.5
HCMC	3,224	4,281	3.0	2.8	1.7	4.1

* Including non-urban parts of the MUR

Whether the MURs increased their share of their countries' urban population over the decade of the 1990s is another question altogether. In Indonesia, Thailand, and Vietnam, irrespective of which set of data is used for the Jakarta, Bangkok, and HCMC MUR – the core plus the inner zone or the core plus the two zones – the growth of their population

was slower than that of the country's total urban population. The following conclusions therefore emerge:

- The mega-urban regions continued to increase their share of their country's or region's population over the decade 1990-2000.
- Except for Manila, they did not, however, grow as rapidly as the urban population as a whole, and therefore held a declining share of the urban population.

One important implication of the generally faster growth in other urban areas than in the MUR in countries such as Thailand and Indonesia is that rural-urban migrants must have diversified their destination areas over the course of the 1990s. No longer were the MURs as dominant a migration destination as previously. Certainly, one factor in their slower growth was their very low fertility rates, which lowered their potential for natural increase, but other urban areas also had relatively low fertility rates, so this factor is unlikely to have been the dominant one.

Mega-urban population trends in the context of demographic transition

In the countries and regions in which the MURs just discussed are located, the demographic transition ran its course over the last half of the 20th century, with total fertility rates dipping below replacement level in the early 1990s in Thailand and being only slightly above replacement level at the end of the century in Indonesia and Vietnam. Only in the Philippines was replacement fertility still a long way off. The large cities were the front runners in the demographic transition. Their mortality rates were the lowest in their respective countries, and their fertility rates fell faster and further than elsewhere. As shown in Table 9, fertility rates fell to dramatically low levels in the metropolitan areas (i.e., the cores) of all the cities covered in this study, except Manila.

Despite this, most of their populations were still capable of growing through natural increase because their age structures were still weighted towards the reproductive ages. There were two reasons for this. The first was the delay before the smaller birth cohorts, resulting from lowered fertility, grow up to reach the reproductive ages. This is in fact a manifestation of the 'demographic bonus', which resulted in a disproportionate share of their populations being in the younger working ages. The second reason was that their reproductive age populations were being replenished by migration, which tended to be concentrated in the young adult ages.

Variations in this pattern appear among the MURs. In Bangkok, faced with extremely low fertility, the population is probably no longer capable of replacing itself. Increasingly, then,

TABLE 9. Total Fertility Rates, metropolitan areas compared with rest of country or region, S.E. and E. Asian countries

City	Year	TFR of the metropolitan area	TFR of whole country
Jakarta	1991	2.18	3.22
	2000	1.78	2.34
Bangkok	1984-87	1.60	2.23
	1991	1.41	2.41
	2000	1.16	1.81
Manila	1993	2.76	4.09
	2000	2.8	3.5
HCMC	1999	1.4	2.5

Source: **Jakarta** 1991: own children method from IDH Survey. Refers to 3 yrs before the survey 2000: Rele method from 2000 Census. Refers to 3 yrs before the Census. **Bangkok** 1984-87: Hirschman *et al.*, "the Path to Below Replacement Level Fertility in Thailand," *International Family Planning Perspectives*, 20 (3), Sept. 1994. Estimate based on 1987 Demographic and Health Survey, 1991 Survey of Population Change. **Manila** 1993: Population and Health Survey. 2000: 2003 Demographic Survey. Refers to 1998 to early 2001 period. **HCMC** – personal communication from Dang Nguyen Anh.

the continued growth of population in Bangkok's core and in the zones surrounding it will be dependent on continuing in-migration from other parts of the country. There is still a considerable 'pool' of rural population in Thailand, since its level of urbanization is little over 30 %, and therefore potential for continuation of the rural-urban migration flow that has fuelled its growth in the past.

In the case of Jakarta, it should be noted that there is a considerable gradation in fertility rates between the core and the zones surrounding it. The total fertility rate in the 1995-2000 period is estimated to have ranged from 1.8 in DKI Jakarta (the core) to 2.5 in the inner zone and 3.4 in the outer zone. This is an enormous range, given that all areas lie within the one mega-urban region. Moreover, in the outer zone the fertility is substantially higher than in Indonesia as a whole. The high rate in the outer zone reflects the young ages at marriage and high fertility levels that have characterized the local population of these areas (the Bantenese, Sundanese and Betawi). Though the rates for these ethnic-linguistic groups are changing with social and economic development, it is probably the lowering of their percentage of the population in the inner and outer zones by in-migration from the core and from other parts of Indonesia that has had the greater effect of lowering fertility rates in the zones.

In Manila, alone among the mega-urban regions covered in this study, the potential for further population growth is striking. Both natural increase and continued migration from

other parts of the country will continue to fuel its growth for some time to come. The migration inflow could, of course, be modified if Manila's power of attraction is eroded by failure of job opportunities to grow rapidly and by deteriorating living conditions as a result of traffic gridlock, increasing crime rates, or other factors. The continued excess of fertility over mortality, however, may take longer to change, although in view of the formidable difficulties couples face in raising a medium-sized family in this sprawling metropolis, it is surprising that fertility rates have not already sunk lower.

As the urban transition proceeds, MURs will increasingly rely on flows of migrants from other cities in the country and from abroad. Rural depopulation has been underway for decades in the higher income economies of Pacific Asia such as Japan, Korea and Taiwan. In response to labor shortages in lower wage occupations in these countries, international migration is already becoming crucial to the viability of their MUR economies (Douglass 1999; 2002). Even at a lower per capita GDP, Bangkok has also become a destination for significant numbers of workers from its neighboring countries. In contrast, the Philippines, which currently has approximately 20% of its labor force working abroad, has become increasingly dependent on remittances from its emigrant workers to sustain its national economy. Indonesia and China are also supplying millions of migrant workers to other countries, many of which are in Pacific Asia.

For anyone with a knowledge of debates on urbanization in the West over the past two centuries, it is somewhat ironic to learn of the imminent inability of the population of the Bangkok mega-urban region to reproduce itself. In this mega-urban region (and in even more extreme form in Shanghai), it is the very low fertility that is the culprit; in Europe, high mortality, the 'urban graveyard effect' was often held responsible, although this is a controversial issue (Woods, 2003). In any event, the sub-replacement fertility in many Asian cities is real enough, and migration will certainly have to play its role if their populations are to be prevented from declining.

Intra-city variability in poverty and living conditions

Within any large metropolis, sharp contrasts can be observed in living conditions between different parts of the metropolis. Sometimes, squatter settlements are located close to the gated communities of the upper middle class, although this is an uneasy juxtaposition, and the middle class generally tries to distance itself geographically from the poor as much as possible. In any event, detailed mapping of population characteristics in metropolises has much to reveal, as do studies linking health, education and poverty not only to individual and family characteristics, but also to characteristics of the communities in which people live. Typically, these community characteristics have an impact on the indicators of human development over and above the individual characteristics used as explanatory variables.

A recent study brought Demographic and Health Survey and other data from a large number of countries to bear on issues of intraurban and interurban inequality, with particular reference to human capital investment, poverty and wellbeing, access to basic services, risk and vulnerability. Its broad findings were that:

> ... urban residents are better off on average than rural residents; residents of smaller cities are generally disadvantaged by comparison with those of larger cities, although advantaged by comparison with rural villagers; and the urban poor suffer from deprivations that can sometimes leave them no better off than rural residents, but generally situate them between rural residents and the urban non-poor (National Research Council, 2003: 195).

These may appear to be unremarkable conclusions, but they are an important corrective to some claims having fairly wide currency. In recent times, we have been treated to too many generalizations about health disadvantages faced by urban areas – as if conditions in 19th century Britain were being translated to current developing country situations. On a closer reading of these generalizations, "urban health disadvantages" frequently meant disadvantages for urban slum dwellers compared with rural dwellers, and sometimes involved generalizations from studies in particular regions. The careful assessment of the full range of available data used in this study is important, and leads to the clear conclusion that infant and child mortality rates are higher on average in rural than in urban areas, though the urban poor are generally worse off than the urban non-poor and in several cases may fare worse than rural children. Importantly, there is also no clear evidence of systematic erosion over time in the urban advantage in infant and child survival, except in some areas of sub-Saharan Africa.

Locality as the key to urban living conditions

Community life is never given an economic value in studies of income. Yet a sense of place and of community is central to people's satisfaction with their lot, even if the physical conditions under which they live leave much to be desired. As argued by Berner (1997: 107), in a sprawling metropolis such as Manila, with no clearly defined centre, "no overwhelming beauty, no prominent features, no memorable lines, no famous characteristics", the locality is the centre of everyday life and of people's consciousness. Berner was struck by the positive view most residents of the squatter settlements he studied had of their localities, which to most outside observers would have appeared as eyesores. One key to this was the close network of personal relationships that dominate people's lives and that can give a positive meaning even to life in crowded settlements that resemble, in the words of one resident, "factories of children".

Of course, there are strong forces as well restricting the cohesiveness of such settlements. Residents tend to be a mix of migrants from far-flung parts of the Philippines; there is considerable turnover of residents, particularly renters; and the strength of people's interest in community organizations depends very much on the perceived ability of these organizations to bring them benefits.

Urban governance issues

This brings us to the vexed question of urban governance issues. In discussing the proliferation of new local government forms and units across the developing world, the authors of a recent study (National Research Council, 2003) note the need to avoid the assumption that moving governments closer to the people will necessarily heighten sensitivity to local needs and bring more democracy and transparency to the process by which these needs are addressed. This issue is particularly important for the Philippines. There is relatively little information available on whether decentralization has benefited or disadvantaged local communities in access to various services previously delivered vertically through ministries. One study – using before and after data on local government units to determine whether decentralization has affected rates of child immunization and use of family planning – concluded that in this case, the transfer of resources from national to local authorities has increased local 'resources overall. This has evidently encouraged the use of family planning, though they do not appear to have had the same impact on immunization (Schwartz, Guilkey and Racelis (2002).

If the key to people's wellbeing in cities is the locality, how can communities be enabled to have a say in decisions that affect them? How can local desires be reconciled with a more macro view of planning needs in the metropolis? How can the NIMBY factor (Not In My Back Yard) be reconciled with the overall needs of the metropolis? This issue was brought home to me forcefully some years ago when I was taken to see a large facility designed to serve as an intermediate step in an integrated garbage disposal system for Metro Manila, after the closing of the famous "Smoky Mountain" garbage dump in Tondo. The idea was that trucks would bring garbage to this large facility on the outskirts of Manila, where the garbage would be processed in some way and then transported to a series of further disposal sites. The residents of the small township where the processing facility had been constructed were – not surprisingly – opposed to its location there. They had been encouraged by NGOs and Church groups to protest, and the protest had succeeded in blocking use of the facility.

I do not know what happened thereafter. Were the protests justified? I really don't know. I don't know about the processes of consultation that went on before the facility was built. I don't know whether the claims of the residents – that dangerous substances were seeping

out from the facility – were true. I don't know what political processes were followed, and whether there was corruption involved. What I suspect, however, is that wherever such a facility were to be built, there would have been protests, because one small community was being asked to sacrifice aspects of its wellbeing for the wider public good. This raises questions of adequate compensation, but also questions about the extent to which a planning authority with responsibility for metropolitan-level development should be enabled to override local objections to particular planning decisions.

The study mentioned earlier (National Research Council, 2003) devoted a chapter to issues of urban governance. This may appear strange in a book devoted to urban demographic change and its implications for the developing world, but the justification used was that the emergence of large and complex metropolitan regions require a system of governance that can cope with the emerging challenges.

The current definition of governance used by the United Nations Development Program is:

> ... the exercise of economic, political and administrative authority to manage a country's affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences (UNDP, 1997, 2-3).

What kinds of governance models might be applied to mega-urban regions? Four categories might be mentioned:

- The *fragmented* model, with a myriad of autonomous local government units, each with jurisdiction over a particular function or territory.
- The *mixed* model – regional government approaches in which both central and local government play a role in the administration of a region.
- The *centralized* model, dominated by a central government (as in Vietnam).
- The *comprehensive* model, where there is either a single coordinating governance unit for the whole mega-urban region or a two-tier system in which local governments perform a number of local functions, but cede to a higher metropolitan authority the performance of region-wide functions.

Metro Manila incorporates 17 municipalities, with a further 18 in the surrounding zones making up the mega-urban region. Laquian (2000: 1) has described Metro Manila as "a 'city of villages' in which autonomous local units ... have traditionally resisted efforts to centrally control their activities". This strong localism was reinforced by the 1991 Local Government

Code, and by the strong political culture of particularism that makes coalitions difficult to achieve. The fragmentation is reinforced by control maintained by powerful local families in many Manila cities and municipalities, and exacerbated by competition between certain local government units vying for large infrastructure investments that can serve the global economy (Shatkin, 2000: 2368). Though there is a Metro Manila Development Authority with responsibility for the whole metropolitan area, it has remained a weak governance structure.

Not only Manila but the other mega-urban regions of Southeast Asia as well are still seeking a form of governance that best meets the needs of managing these complex entities. The arrangements reached will have an important bearing on the wellbeing of their residents in coming years.

Notes

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2 "East Asia achieved its high-growth 'miracle' by boosting and sustaining investment rates while absorbing excess agricultural labour into industry" (Asian Development Bank, 2002: Box 3.1).

3 A Philippines-Malaysia comparison would be equally relevant. As shown in Table 2, the level of urbanization in the Philippines is slightly above that in Malaysia, despite Malaysia's much higher level of per capita income and an economy that has moved further away from reliance on agriculture.

4 For more detail, see Mejia-Raymundo, 1983: 64.

5 This study was conducted by the author in collaboration with Professor Mike Douglass and colleagues in six cities: Jakarta, Bangkok, Manila, HCMC, Taipei and Shanghai. The results are to be published in book form. The results reported on briefly here are only for the four Southeast Asian mega-urban regions. Collaborators in these four regions were: Jakarta – Si Gde Made Mamas and Rizki Komalasari; Bangkok – Jarunun Sutiprapa, Paranee Watana, Preeya Mitranon and Chanpen Taesrikul; Manila – Rachel Racelis and Monina Collado; HCMC – Dang Nguyen Anh.

6 For Manila, the zonal classification adopted by Jones et al., 2000 was continued, thus allowing comparison, where necessary, with data for 1980. The inner zone in that study included cities and municipalities with population density >750 per sq. km. in 1990 and which were contiguous to Metro Manila or to other inner zone localities.

7 Actually, it is noteworthy that the population density in Manila's outer zone, despite its greater area than the outer zones in the other MURs, is higher than in three of the other MURs. Before inferring that Manila's MUR is not 'overbounded', though, it should be noted that population density overall in the Philippines is higher than in the other countries, and the density in the outer zone is not greatly above that for the country as a whole.

8 It is a typical feature of very large and populous countries that one city is unable to dominate their urban hierarchy (Jones and Visaria, 1997: 6-8).

9 The U.N. study, *World Urbanization Prospects* (U.N. 2003), revised every two years, assesses growth rates of major urban agglomerations, but using the official metropolitan areas (equivalent in most cases to the 'core' in our study). This study indicates that growth rates of most of these metropolitan areas are slowing, and are now mostly quite low. As this study is the only comparative study of the world's urban areas, its findings are used by many writers on urbanization trends and prospects.

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Fertility and Age-Structural Transitions and the Millennium Development Goals: Perspective from the Philippines*

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Abstract

This paper demonstrates the link between fertility transition and the achievement of millennium development goals (MDGs) from the perspective of the age-structural transition. Using the Philippine experience and drawing data from the census and other secondary sources, this paper elaborates on the interactions between fertility, age-structure and the MDGs. It is descriptive in design and theoretical rather than statistical in approach. The perspective of age-structural transition as mediating link between fertility transition and the MDGs allows governments to plan and evaluate programs on the basis of their responsiveness to the changing needs and capabilities of the population from the standpoint of gender and the life course. In the Philippines, fertility decline has been slow, and although the proportions of children and adolescents are declining, their numbers continue to rise, especially in the poorer segment of society. Consequently, the country has difficulty in meeting the dietary, educational and reproductive health needs of its population (MDG numbers 1, 2 and 5) and in providing jobs and adequate income for its growing number of young and older adults. The Philippines faces the dual challenge of providing for a larger population-in-

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need and not having adequate resources to do so. Yet it is recognized that the same MDGs that the country is having difficulty in achieving are actually prerequisites for its development. It is imperative, therefore, that institutional reforms compensate for existing deficiencies, and that the global community extends its genuine support and cooperation. In effect, MDG number 8 is paramount among young, transitioning populations.

Keywords: millennium development goals, age-structural transition, fertility, development

I. Introduction

Most countries in Asia are still in the intermediate stage of the demographic transition. According to the Population Reference Bureau (2005), only four of 18 countries in Western Asia, three of the 14 countries in South Central Asia, and two of the 11 Southeast Asian countries have achieved replacement or below replacement level fertility. East Asia, however, has completed the demographic transition; all its countries, except Mongolia, now have below replacement level fertility.

An inevitable consequence of the demographic transition is the age-structural transition. Fertility and mortality declines lead to population aging. Whether a population ages quickly or gradually is likewise dependent on the pace of fertility and mortality transitions. It is generally accepted, however, that fertility is the more potent force in population aging and the tempo with which this occurs (Kinsella and Phillips, 2005).[2] Countries experiencing dramatic reductions in fertility can expect to age faster than those undergoing gradual fertility decline.[3]

As stated, most countries in Asia are still in the process of completing the demographic transition. Their age-structures reflect this transition. Thus, close to 30% of Asia's population is below 15 years of age, while only 6% is 65 years old and older. The regions with lower fertility (East and Southeast Asia) have relatively fewer children (21% and 30%, respectively) compared with those of higher fertility (36% for South Central Asia and 34% for Western Asia). Because of their comparable fertility levels, Asia and Latin America also have similar proportions of children and the elderly. Africa has the youngest population in the world (42% under 15 years old and only 3% 65 years and older), while Europe has the oldest (16% of children as well as the elderly). The populations of North America and Oceania are younger than that of Europe, but older than those of Asia and Latin America.

The changing age-structure of a country is an important consideration in the achievement of the MDGs. Fertility, by itself, has significant implications on MDGs because it has immediate links with maternal and child health and has a direct impact on population growth. But fertility also impacts on MDGs through the intervening process of age-structural change. Figuratively, fertility decline defines the contour of the aging process of a population (as

illustrated in the population pyramid), but it is this contour that sets limits as well as expands opportunities for the realization of MDGs.

As a population ages consequent to fertility decline, "a 'boom' generation – a generation that is larger than those immediately before and after it" – will be gradually working its way through a country's age structure (Bloom, Canning and Sevilla, 2003: xii). This means that, over the years, this dominant birth cohort (born at the time when fertility was at its peak) will be passing from childhood to adolescence, to young and middle adulthood, before reaching old age. At each stage, the cohort brings to the fore the needs and capabilities apropos to the life stage it is undergoing. In more concrete terms, when the 'boom' cohort is under 15 years of age (at the early stages of fertility decline), the country will then need to intensify programs and services that cater to children's welfare and development. This relates particularly to the provision of primary education, childcare, nutrition and health services – all major concerns of MDGs. In time, this large cohort of children will become adolescents and young adults. A population dominated by the youth will need to expand services for secondary and tertiary education, reproductive health care, and employment opportunities – concerns that address gender, poverty and reproductive health issues in the MDGs. When the youths advance to the middle ages, the pressure shifts to the provision of housing, job security, investment opportunities, physical and psychosocial well-being, among others. Finally, when the dominant cohort reaches old age, then the care and welfare of the elderly take precedence. At the micro level, the age-structural transition is mirrored in the preponderance of households at varying stages of the family life cycle. Insofar as MDGs are concerned, it will certainly matter whether a population has proportionately more (or less) households with: 1) young children, 2) adolescents and young adults, 3) older adults, and 4) the elderly. Consumption, productivity, savings and investment patterns are greatly influenced by the age composition of households. Each of these stages has special implications on the goals of poverty alleviation, universal education, maternal and child health and environmental protection because they relate in specific ways to the dynamics and composition of families and households. The goals and targets of MDGs clearly have age and gender dimensions; therefore, there is a need to integrate age-structural considerations in the planning, implementation and monitoring of MDG programs.

Another aspect of the age-structural transition crucial to the MDGs is its link with development, because development is closely intertwined with the MDGs. This three-way connection is best illustrated in the concept of the "demographic bonus". A young population has a high child dependency burden, while an old population has many old-age dependents. Therefore, during the early and final stages of the age-structural transition, economic development can stall because the country's resources are focused on social services and welfare programs for children and old people, respectively, rather than on productive investments. During the intermediate stage of the age-structural transition, however, the population enjoys a respite from high dependency burdens when the working-age population

outnumbers the children and the elderly. The predominance of people in the productive ages constitutes a "demographic bonus/dividend" or "window of opportunity" for the population to experience rapid economic growth. There is a caveat to this, however. The economic benefits of the demographic bonus can only be realized if the working-age population is fully productive, i.e., adequate human capital investments on health and education, plus a growth-facilitating policy environment are in place. If this is so, then substantial income growth, both at the macro and micro levels, can be achieved.

The development and age-structure scenarios described above link with MDGs in two ways. First, all things being equal, the achievement of MDGs (or lack thereof) is viewed as a by-product of economic growth that is being accelerated (or constrained) by a country's age-structure. In specific terms, slow economic growth during times of high dependency burdens will impede the achievement of MDGs because a country will not have sufficient resources to mobilize MDG programs. Conversely, rapid economic growth fueled by a favorable age structure can fast track the achievement of MDGs. Second, the achievement of MDGs is regarded as a facilitating factor for economic growth because it ensures a healthy, educated and empowered working-age population when the demographic "window of opportunity" presents itself. What all this implies is that, in order to avoid the negative cycle of high dependency burden, low economic growth, failure to achieve MDGs and avail of benefits from the demographic bonus, it is imperative that MDGs be attained during the early stages of the age-structural transition. In doing so, a healthy, educated working population can be guaranteed for the intermediate and advanced stages of age-structural change. This imperative, however, will prove to be a challenge to a "young" population whose economic performance is faltering. In such cases, institutional factors such as good governance, policies, private-public sector partnerships, and global cooperation (all MDG concerns as well) must play more significant roles.

In the following pages, concrete illustrations of the relationships between fertility, age-structure, development and the MDGs will be presented with the Philippines as case study.

II. Objectives

It is therefore the purpose of this paper to demonstrate, from the Philippine experience, the link between fertility transition and the achievement of MDGs via the intervening influence of the age-structural transition. In specific terms, the paper will expound on the relationships between:

1) fertility decline and the age-structural transition,
2) age-structural transition and development,
3) age-structural transition and MDGs, and
4) MDGs and development.

It will further explain that these linkages have significant implications on policies that are relevant to the achievement of MDGs.

III. Materials and Methods

The Philippines provides the case study for exploring the relationships between fertility, age-structure and the MDGs. Philippine data are obtained from the census and secondary sources such as the 2003 National Demographic and Health Survey or NDHS (National Statistics Office and ORC Macro, 2004) and the Second Philippines Progress Report on the Millennium Development Goals (United Nations and the Republic of the Philippines, 2005). Where disaggregated data at the provincial and regional levels are accessible, simple correlations of pertinent indicators are presented. Cross-country and inter-regional comparisons are provided to the extent that these are available in the 2005 World Population Data Sheet of the Population Reference Bureau.

Because of data and resource constraints, a thorough statistical analysis is not possible in this study. Arguments are made and conclusions reached largely from a theoretical rather than an empirical standpoint. Speculations put forth are informed, as well as limited, by the data at hand.

IV. The Philippine Experience

The Philippines' fertility and age-structural transitions

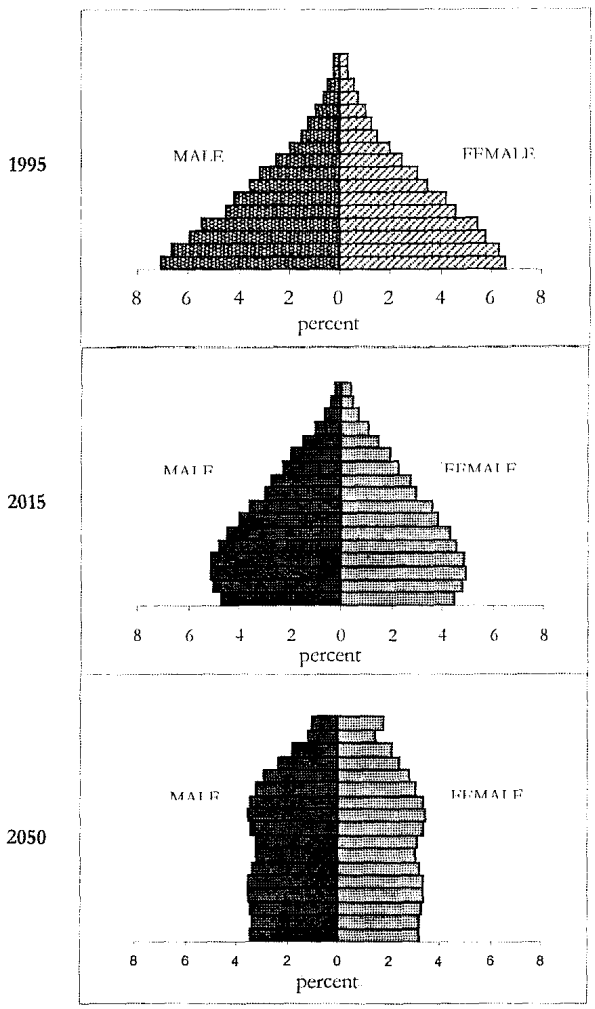
In the 2000 census, the Philippines was reported to have a population of 76.5 million. Today it is estimated to have 85.2 million people. Currently, the Philippines is the 12th largest country in the world. In Asia, it ranks 7th after China, India, Indonesia, Pakistan, Bangladesh and Japan. By 2050, it may well be the 11th largest country in the world, and will displace Japan as the 6th largest in Asia (PRB, 2005).

The 2000 census also pegged the annual growth rate of the Philippines at 2.3%. By 2015, this growth rate is expected to go down to 1.8% (NSCB, 2005). Growth rates remain relatively high because fertility rates have been slow to decline. This is so because population programs have been sporadic and inconsistent owing to the persistent opposition of the Catholic Church hierarchy to the government's adoption of a clear and unequivocal population policy (Herrin, 2003). Between 1970 and 1996, the total fertility rate (TFR) of the Philippines decreased from 5.97 to 3.73 births. However, significant declines observed in the decades of the 70s and 80s were not sustained thereafter. The 2003 NDHS (National Statistics Office and ORC Macro, 2004) reported TFR at 3.5 births. The latest projections from the National Statistics Office (NSO) based on medium series assumption estimate that TFR will reach

replacement level (2.07 births) only in 2035-2040 (NSCB, 2005). With this trend, the demographic transition of the Philippines is expected to be one of the slowest in Asia (Xenos, 2004).[4]

Consistent with the sluggish decline in fertility, the structural aging of the Philippine population has likewise been slow.[5] In 1990, the median age of the population was 19.7; in 2000 it was 21.0 years; by 2015, it is projected to rise to 26.5 years. Population pyramids drawn from the United Nation's medium variant projections for 1995, 2015 and 2050 provide an illustration of the gradual aging of the Philippine population (Figure 1).

FIGURE 1. Population pyramids: UN medium series projection, 1995, 2015, and 2050



Source: Gultiano and Xenos, 2005: Figure 3

Table 1 presents the distribution of the Philippine population by broad age categories. It highlights the following features of the country's age-structural change from 1970 to 2030:[6]

(1) the proportion of people under age 15 is declining, but absolute numbers continue to rise until 2025, when a reversal becomes imminent thereafter;
(2) the number of elderly people (aged 60 and above) more than doubled since 1970; from hereon, it could triple in the next three decades; but its proportion will not reach the 10% mark before 2025;
(3) the proportion of youths (aged 15-29) has reached its peak and will gradually decline from 2010 onwards, even as their numbers continue to rise until 2030; and
(4) older adults (aged 30-59) continue to increase in number and proportion; they will constitute the biggest segment of the population 10 years from now.

TABLE 1. Population by major age groups: Philippines 1970-2020 (medium series)

Age group	1970[a]	1980[a]	1990[a]	2000[b]	2010[b]	2015[b]	2020[b]	2025[b]	2030[b]
				in thousand					
0-14	16,757	20,221	23,994	28,546	30,731	32,115	33,194	33,632	33,487
15-29	9,691	13,698	17,354	21,245	26,377	28,043	29,243	30,336	31,754
30-59	8,560	11,637	16,023	22,566	30,209	34,436	38,852	43,328	47,265
60+	1,646	2,542	3,188	4,589	6,622	8,228	10,261	12,583	15,153
All ages	36,684[c]	48,098	60,559	76,946	93,939	102,822	111,550	119,879	127,659
				in percent					
0-14	45.7	42.0	39.6	37.1	32.7	31.2	29.8	28.1	26.2
15-29	26.4	28.5	28.7	27.6	28.1	27.3	26.2	25.3	24.9
30-59	23.4	24.2	26.4	29.3	32.2	33.5	34.8	36.1	37.0
60+	4.5	5.3	5.3	6.0	7.0	8.0	9.2	10.5	11.9

a. Census of Population and Housing, 1970, 1980, 1990
b. National Statistical Coordinating Board (NSCB) website, 2005.
c. Includes about 30,000 individuals with ages unknown

The age distributions for 2010 to 2030 given in Table 1 are taken from the medium series projections of the NSO based on the results of the 2000 census. Earlier, the NSO prepared similar projections based on the 1995 census, and published population estimates using assumptions of rapid (low series), moderate (medium series) and slow (high series) pace of fertility decline (NSO, 1997). The low series assumed that replacement level fertility (NRR=1) would be achieved in 2010. Although unrealistic under present conditions, the 1995 low series estimates are presented in Table 2 to illustrate, in measurable terms, the impact of the tempo of fertility decline on the Philippine age-structure.

TABLE 2. Population by major age groups: Philippines 1970-2020 (low series)

Age group	1970[a]	1980[a]	1990[a]	2000[b]	2010[b]	2015[b]	2020[b]	2025	2030
				in thousand					
0-14	16,757	20,221	23,994	26,785	24,669	23,589	23,130	23,093	22,839
15-29	9,691	13,698	17,354	21,425	25,724	26,426	25,991	24,422	23,380
30-59	8,560	11,637	16,023	22,678	30,489	34,706	38,994	43,256	46,188
60+	1,646	2,542	3,188	4,617	7,058	8,719	10,749	13,101	15,792
All ages	36,684[c]	48,098	60,559	75,505	87,940	93,440	98,864	103,872	108,199
				in percent					
0-14	45.7	42.0	39.6	35.5	28.0	25.2	23.4	22.2	21.1
15-29	26.4	28.5	28.7	28.4	29.3	28.3	26.3	23.5	21.6
30-59	23.4	24.2	26.4	30.0	34.7	37.1	39.4	41.7	42.7
60+	4.5	5.3	5.3	6.1	8.0	9.3	10.9	12.6	14.6

a. Census of Population and Housing, 1970, 1980, 1990.
b. National Statistics Office (NSO), 1997, Vol. I, Table 6, p.58.
c. Includes about 30,000 individuals with ages unknown.

If the Philippines were to achieve replacement fertility in 2010 instead of circa 2030 as currently projected, the country's population would be smaller by 19 million in 2030. With an average household size of five members, this 19 million translates to an additional 3.8 million households. With respect to age-structural change, the aging of the Philippine population would have been more pronounced. At present, it is expected that by 2030: one-fourth of

the population will be under 15 years of age; another one-fourth will be 15-29 years old; about one-third will be aged 30-59; and about one-tenth will be 60 years old and over. These proportions would be quite different if fertility had declined more steeply. By 2030: only one-fifth of the population would be under age 15; another one-fifth would be 15-29; more than two-fifths (43%) would be in the prime working ages 30-59; and 15% would be 60 years old and older. The timing of age-structural shifts would also have been different. For example, the diminishing trend in the number of children would have been evident before 2010 instead of 2030; the number of youths would begin to decline after 2015 instead of continuing on its upward trend up to 2030; the proportion of middle-aged adults will exceed one-third of total population before 2010 instead of 2015; and the proportion of the elderly will reach 10% in 2020 instead of 2025. Because of the protracted fertility transition in the country, the Philippines will have to confront considerably larger numbers (and proportions) of children who, eventually, will be advancing to adolescence and young adulthood in the next three decades. This demographic development is one that requires attention when probing into economic growth and MDG prospects for the country.

Another important angle to consider in fertility transition is that the pace of fertility decline is not uniform across different sectors of society. Fertility remains at relatively high levels in rural areas, and among the less educated and poorer segments of Philippine society (NSO and ORC Macro, 2004).[7] What this means, therefore, is that the large number of children that the country now has – the same children who will soon become adolescents and young adults – is heavily weighted towards the poor and the less educated. A question that deserves to be asked then is: Will this social and economic disadvantage be allowed to persist until these children reach mid and late adulthood? What can be done (or is being done) to break the cycle of high fertility and poverty? To these questions, the MDG goals hold the key, as will be discussed in the succeeding sections.

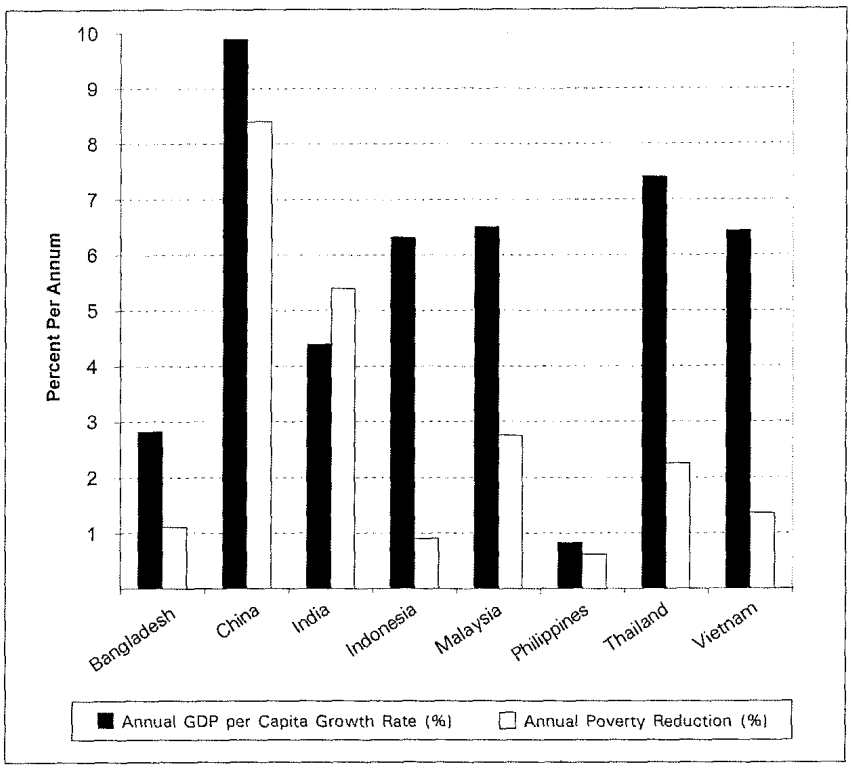
Philippine age-structure and development

It is common knowledge that the Philippines' economic performance has not been at par with many of its Asian neighbors (Figure 2). Many factors contribute to this poor performance, including political turmoil, natural disasters, the Asian economic crisis and overall global economic slowdown (National Statistics Office, 2002; United Nations and the Republic of the Philippines, 2005). Economists hasten to add institutional factors and the poor investment climate in the country as contributing factors (Pernia and Salas, 2005). In academic circles, there is also the consensus that high fertility and unrestrained population growth have contributed to the country's weak economic performance.

A study of 80 developing and developed countries by Mapa and Balisacan (2004), cited in the white paper on "Population and Poverty: The Real Score" of the University of the

Philippines School of Economics (2004, p.4), showed that: 1) "total population growth exerts a negative and significant effect on economic growth (unfavorable saving and capital-shallowing effects)", and 2) "working-age population growth (implying demographic dividend), life expectancy at birth (a health indicator), openness to trade, and quality of public institutions (denoting good governance) all show positive and significant effects on economic growth." In the case of the Philippines, the paper proceeds to explain that the negative effect of population growth "operates via reduced child care and human capital investment at the family level, lower household sector savings for business and government investments, and constraints on allocative efficiency, innovation and entrepreneurship. Population growth requires capital widening to maintain the amount of capital per worker, and the faster such growth the lesser the chances of capital deepening for raising the amount of capital per worker."

FIGURE 2. GDP per Capita Growth Rate and Poverty Reduction, Early to Late 1990s



Source: Pernia and Salas, 2005: Figure

Implicit in these arguments is the fact that, with the preponderance of children, the age-structure of the Philippines imposes constraints on productive investments because national and household savings are being diminished by large financial outlays for human capital

investments on child health, nutrition and education. And since the number of children is continuously growing, provisions for human capital investment will, in time, become inadequate as well. Further, as large cohorts of children reach adolescence and the working ages – as is happening in the present decade – increased pressure on public and private sector employment will ensue. But since savings and productive investments had been greatly reduced, job creation will not be able to cope with demand. In consequence, surplus labor and deficits in human capital investments will render the young adult population less productive.[8]

Economists therefore contend that if high fertility and the unfavorable policy environment persist, the Philippines will miss out on the demographic bonus entirely (Herrin, 2003; Pernia, 2003; and Orbeta, 2002). The exceedingly slow passage through the demographic transition keeps dependency ratios high despite the fact that the country is currently experiencing a youth surge (Gultiano and Xenos, 2005).[9] Unless deficiencies in population and economic policies are promptly and adequately addressed, the "bonus" is not likely to materialize. Ongoing shifts in age structure already pose the immediate and continuing challenge of generating adequate job opportunities, resources and services to an unprecedented number of people in the productive ages, a challenge that the Philippines is ill-equipped to manage because it is presently caught in what is called a low-level equilibrium trap (Pernia 2003).[10] Government statistics show that the unemployment rate was 11% in October 2004 and underemployment was even higher (17%), despite 3.2 million jobs purportedly generated in 2001 to 2004 (United Nations and the Republic of the Philippines, 2005).

However, the Philippine situation may not be altogether dismal. Like some of its Asian neighbors, the Philippines found a pragmatic response to its existing demographic and economic condition. It is pursuing overseas employment for its burgeoning labor force with vigor. From the 2001 and 2002 Surveys of Overseas Filipinos, it has been estimated that close to one million overseas Filipino workers (OFWs) sent 68 billion Pesos in remittances to the home country. This amount represents an increase of 23% from the 55 billion Pesos sent a year earlier (NSO, 2005). These remittances go a long way in servicing the country's foreign debt.[11] Thus, while Philippine economists perceive the demographic bonus as a far-fetched dream, the reality is that the country's changing age-structure has contributed, in no small way, to increasing the volume of overseas employment and, therefore, foreign remittances for the country. These remittances also bring the needed boost in human capital investments for education and health because they are essentially sent to improve the welfare of the OFWs' families. In fact, one of the Philippine strategies for financing the MDGs expressly states "(t)he tapping of the remittance of OFWs which pass through the formal banking sector to provide both direct and indirect revenues in attaining the MDGs" (United Nations and the Republic of the Philippines, 2005:26). Distorted as it may be but it does represent some kind of demographic bonus that the Philippines is probably enjoying.

The foregoing notwithstanding, overseas employment is clearly not the ideal form of demographic bonus because productive employment takes place outside the home country. Already, despite its expanding labor force, the Philippines is experiencing manpower shortages in key areas such as health care and education – areas of high demand in other countries but also much needed in the Philippines where human capital is gradually being eroded. The Department of Health and the Department of Education are greatly alarmed by the exodus of their medical practitioners and teachers to foreign lands. Anecdotal evidence abound narrating of doctors who are now enrolled in nursing in order to facilitate their job placement abroad. As high fertility and rapid population growth continue, the exacerbation in the deterioration of human capital, plus the exodus of health and teaching professionals are bound to be a formula for national disaster. What once was the Philippine's comparative advantage in the form of an educated labor force will gradually fade away, and so will its edge in foreign employment. It bears noting that the unprecedented increase in the number (and proportion) of the Filipino working age population is yet to come. One may ask therefore: what is going to be the quality of this labor force and what will it mean to Philippine development?

Age-structure, development and the MDGs

The *Second Philippines Progress Report on the Millennium Development Goals* (United Nations and the Republic of the Philippines, 2005), paints a fairly optimistic picture of the Philippines' prospect of attaining the MDGs (Table 3). Of the 17 targets/indicators listed, 12 are reported to have "high" probabilities of attainment. Those with "medium" probability of being achieved have to do with: 1) the prevalence of malnutrition among children 0-5 years old, 2) elementary participation rate of children, 3) improvement in maternal mortality, and 4) prevalence in the use of family planning. One indicator, the elementary cohort survival rate, was rated "low" in achievement probability.

Another study by a group of economists (Collas-Monsod, Monsod and Ducanes, 2004), presents results not too different from, albeit less optimistic than, the official Philippine report. Of the 10 targets that it examined, five had a "high" likelihood of being achieved, namely: 1) access to safe water, 2) elimination of gender disparities in education, 3) reducing infant and under-five mortality, 4) arresting and reversing the spread of HIH/AIDS, and 5) controlling malaria and other major diseases. Four had "low" likelihood of attainment and these include: 1) the reduction of people living in extreme poverty, 2) reducing the percentage of the population below minimum level of dietary consumption and the proportion of underweight children under five years old, 3) universal access and completion of primary education, and 4) reduction in maternal mortality. Rated "fair" was the likelihood of universal access to basic reproductive health services.

Table 3. Millennium Development Goals: Rate of Progress

MDG	Probability of Attaining Target*
Eradicate extreme poverty and hunger	
Proportion of population below	
- subsistence (food) threshold	HIGH
- poverty threshold	HIGH
Proportion of population below	
- subsistence (food) threshold	HIGH
- poverty threshold	HIGH
Prevalence of malnutrition among 0-5 year-old children	
(% underweight) – based on international ref. std.	MEDIUM
Proportion of households with per capita intake below	
100% dietary energy requirement	HIGH
Achieve universal primary education	
Elementary participation rate	MEDIUM
Elementary cohort survival rate	LOW
Promote gender equality and empower women	
Ratio of girls to 100 boys in	
- elementary education	HIGH
- secondary education	HIGH
Reduce child mortality	
Under 5 mortality rate	HIGH
Infant mortality rate	HIGH
Improve maternal health	
Maternal mortality rate	MEDIUM
Increase access to reproductive health services	
Prevalence of men and women / couples	
practicing responsible parenthood	MEDIUM
HIV prevalence	HIGH
Halt and begin to reverse the incidence of	
malaria and other diseases	
Malaria morbidity rate (per 100,000)	HIGH
Provide basic amenities	
Proportion of families with access to	
Safe drinking water	HIGH

* The criterion used in determining whether the target will be met is the ratio between the annual rate of change needed to reach the target and the current rate of progress. The ratings correspond to ranges of rate as follows: < 1.5 = high, 1.5-2.0 = medium, > 2.0 low.

Source: United Nations and the Republic of the Philippines, 2005. *Second Philippines Progress Report* on the Millennium Development Goals. Table 1, p. 28.

Several factors influence the country's prospects of achieving the MDGs. The study of Collas-Monsod et al. (2004), for example, reveals that geographical and political factors play important roles in meeting MDG targets. Specifically, climate, topography and land use classification, as well as history, socio-political and cultural milieus, affect the pace with which a province or geographic unit is able to meet specific goals. In line with arguments presented earlier, it should also be worthwhile to explore the dynamics of age-structure as this relates to the achievement of MDGs.

Based on the two studies mentioned above, there are specific MDG goals that the Philippines is having moderate to considerable difficulty in meeting. These goals relate to poverty alleviation and malnutrition, universal primary education, maternal mortality and access to family planning and reproductive health services. From the perspective of the fertility transition, it is not surprising that, with the persistence of high fertility, the Philippines is finding it problematic to meet these goals. Maternal mortality and reproductive health care obviously have a direct link with the rate of childbearing. More importantly, it is expected that this link would be more apparent among the poor, the less educated, and rural women who bear the brunt of early, frequent and prolonged childbearing. From the perspective of the age-structural transition, it has been explained that, even if fertility is gradually on the decline, the Philippines is still a young population dominated by children. This is one reason why universal primary education is not an easy goal to achieve. The country's resources, its physical and social infrastructure, cannot cope with the expansion of the school-age population. And since child dependency ratio remains high particularly among the poor, poverty is perpetuated and exacerbated. A natural consequence of poverty is malnutrition. To make matters worse, studies have shown (e.g., Glewwe and King, 2001; Glewwe, Jacoby and King, 2001, among others) that malnutrition has significant adverse effects on school participation and achievement among children. What is evident, therefore, is that the goals that the Philippines is finding hard to accomplish interact with one another and with the country's demographic and economic profile, making their attainment all the more difficult.

It is also important to reiterate that the Philippines is currently experiencing a youth surge. At no other time has concerns for adolescent fertility and reproductive health been more urgent. But the sheer number of youths, not to mention their propensity to migrate (Gultiano and Xenos, 2005), makes adequate provision for reproductive health care an enormous challenge. What is perhaps perplexing is that, in the Philippines there is no gender discrimination as far as education is concerned. Women in fact enjoy an advantage over men in this regard. Yet teenage girls, despite their education, show high prevalence of premarital pregnancy (National Statistics Office and ORC Macro, 2004). This is probably proof that universal access to family planning information, supplies, and reproductive health care is truly lacking in the country. This is further underscored by the fact that only 49% of married women use

family planning and that 17% of currently married women have an unmet need for family planning, thus facing the risk of unwanted pregnancy.

Limited province-level data, assembled for the purpose of this paper, also help to demonstrate some of the relationships between age-structure and selected proxy indictors of MDGs. The data show that the prevalence of child labor (a proxy for limitations in school participation/performance of children, as well as income inadequacy) is positively correlated with the TFR and negatively correlated with the proportion of adults in the prime working ages (Table 4). They also show that the median age of the provincial population is negatively associated with the prevalence of underweight children and stunted children in the provinces. The proportion of couples practicing family planning is positively correlated with the median age.

TABLE 4. Pearson correlation coefficients between demographic and MDG indicators

Pair of indicators	Coefficient*
TFR in 1990 and	
% of families with working children 5-17 years old	0.3423
Proportion of population age 30-59 in 1995 and	
% of families with working children 5-17 years old	-0.3322
Median age in 1995 and	
% of children 0-5 years old who are underweight	-0.2768
Median age in 1995 and	
% of children 0-5 years old who are stunted	-0.6022
Median age in 1995 and	
% of couples practicing family planning	0.2541

* significant at $p < 0.05$

The pathways by which age structure affects MDGs are numerous. Many of these come in the form of interactions between age structure and development. As shown, a young age structure tends to inhibit economic growth because it requires that resources be channeled into education, health and nutrition of children instead of production. In investing on the young, the country would have been closer to meeting some of its MDG goals. However, these human capital investments (and the MDGs) need financing that can be guaranteed only by a robust economy. The Philippine economy is not such, partly because of its young age structure. Ironically, the Philippines' strategy for financing MDG programs stipulates that revenue generation through tax collection and savings be increased (United Nations and the

Republic of the Philippines, 2005:26). There is, however, an inherent incongruence between the size of the tax-paying population (and the volume of savings it generates) and the young age structure of the country. Under these circumstances, therefore, it is important that the Philippines pursue other compensating mechanisms, such as sound policies and good governance (including fiscal reforms and related measures) and increased international assistance – themselves MDG targets – in order to advance the rest of its MDG agenda.

Despite the obstacles, it is important to recognize that the achievement of MDGs is, in itself, a prerequisite for development. Keeping in mind that the expansion of the prime working-age population is looming in the horizon, the Philippines would do well to ensure that the children and adolescents of today will grow up to be highly productive citizens of tomorrow. The MDGs, with its emphasis on enhancing human capital, managing population and alleviating poverty, are clearly a means to this end. The MDGs are a prescription for productivity, as much they are for human welfare – and more so for countries that are transitioning from a young to an old population, and poised in the gateway of the demographic "window of opportunity".

V. Implications

From the foregoing, it has been demonstrated that the achievement of the MDGs is influenced by a confluence of demographic, economic, institutional and other factors. This paper, however, has focused on the direct effects of the fertility transition in the realization of the MDGs, and its indirect effect through the age-structural transition.

The changing age-structure of the Philippines provided an illustration of how the achievement of MDGs can be impeded by the age composition of a population. A country with a young population and a high dependency burden is hard put to achieve rapid and sustained economic growth and durable poverty reduction. As a result, MDG programs are faced with the dual challenge of having to reach a larger population-in-need, and without the adequate financial resources to do so. Ironically, it is precisely the achievement of MDGs that holds the promise of breaking the country's cycle of high fertility, weak economic growth, and poverty. Furthermore, with the aging of the population, it becomes crucial that MDG targets are met for the country to take advantage of the demographic "window of opportunity" thereby reaping the demographic dividend.

The Philippine experience is not unique in Asia (or the rest of the world) even if its fertility and age-structural transition has been slow in comparison with other developing countries. It remains true that many of its Asian neighbors are also transitioning from a young to an old population. With the exception of the resource and oil-rich countries in Asia, many nations are also economically challenged. The achievement of MDGs becomes even more

important for these transitioning populations. However, their governments must realize that there is no easy way of meeting the MDG targets with its present demographic and economic conditions. It will require considerable political will and fortitude on their part. Equally important is the recognition by the global community that their cooperation is needed in this endeavor, and that such recognition must be matched with appropriate action.

Notes

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2 The influence of mortality on age structure may prove significant in countries beset by pandemics like HIV/AIDS. Migration is also potentially important in small countries and at the subnational level.

3 Although outside the scope of this paper, it is worth mentioning that another feature of the age-structural transition and fertility link is that drastic decline in fertility causes conspicuous disturbances in age-structures ("disordered cohort effects" as explained in, e.g., Pool (2000, 2004) which are caused primarily by pronounced primary and secondary momentum or echo effects). Gradual fertility decline, on the other hand, brings about a smooth, less perturbed age-structural transition.

4 Xenos estimated that, from the onset of its fertility decline in 1963, it will take the Philippines 66 years to attain replacement level fertility. Other Asian countries such as Singapore, Thailand, Pakistan and India are estimated to complete the demographic transition in 16, 32, 40, and 47 years, respectively.

5 As far as mortality decline in the Philippines is concerned, life expectancy at birth for men increased from 51.0 years in 1960 to 62.2 years in 1990; for women it increased from 54.5 years to 67.4 years in 1990 (Flieger, Abenoja and Lim, 1981; Flieger and Cabigon, 1994). These numbers are projected to rise to 67.6 years for men and 73.1 years for women in 2015 (NSCB, 2005).

6 The figures presented in Table 1 for 1970 to 1990 are based on actual counts from the censuses of 1970, 1980 and 1990; the 2000 figures are corrected figures based on the 2000 census, while the 2010 to 2030 figures are based on the medium series projections estimated from the 2000 figures.

7 The 2003 NDHS reports TFR to be: (1) 4.3 births in rural areas and 3.0 births in urban areas, (2) 5.3, 5.0, 3.5 and 2.7 births for women with no education, elementary, high school and college education, respectively, and 3) 5.9 births for the lowest wealth index quintile, in contrast to 2.0 births for the highest wealth quintile.

8 These arguments are based on the earlier works of Coale and Hoover (1958) and Coale (1969), a succinct description of which was provided by Herrin (1983) in aid of Philippine policy and program planning.

9 As shown in Table 1, the Philippine is currently experiencing a "youth bulge." Had fertility declined at a faster rate to effect a more dramatic reduction in child dependency burden, this youth surge would have ushered in the "demographic bonus." From the perspective of the age-structural transition, these youths will soon be advancing to the older working ages (30-59), that period in the life course when individuals are suppose to be most productive and personal savings are highest, provided economic conditions in the country are right and full employment has been achieved (Bloom et al., 2003).

10 Pernia (2003:2) explains this low-level equilibrium trap as "a chain of low economic growth, high unemployment, low productivity, persistent poverty, declining human capital, and high fertility feeding back into low economic growth, high unemployment, low productivity and so on and so forth".

11 Higgins and Williamson (1997) have shown that, especially in Asia, age-structure is related to foreign capital dependence. This dependence is high for young populations, but gradually diminishes as the population ages and is dominated by people in the prime working-ages. In the Philippines, the working population overseas is apparently helping to pay the country's accumulated debt.

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Reproductive Health and Risk Behavior of Adolescents in Northern Mindanao, Philippines

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Abstract

This paper examines the differences in adolescents' reproductive health and risk behavior in urban and rural settings by analyzing data obtained from 60 in-depth interviews and 12 focus group discussions of purposively chosen adolescents from two provinces (Lanao del Norte and Misamis Oriental) of Region 10 in Mindanao. The topics covered include knowledge of the elements of reproductive health (RH), experiences of abuses, knowledge, attitudes on sex and sexuality and non-sexual health risk behavior. The findings reveal deficient knowledge of adolescents in RH, that they are likely recipients of physical and verbal abuses from their parents, that sex and sexuality are subjects not open for discussion, and widespread practices of non-sexual risk behavior. Smoking is high among rural and indigenous males compared with urban counterpart and use of prohibited drugs is widespread in both urban and rural communities.

Keywords: reproductive health, sexually transmitted diseases, sexuality, family planning, contraception, abortion

I. Introduction

The international concern for RH and rights has gained momentum as government entities and non-governmental organizations keep monitoring gains in consonance with the governments' commitment to the International Conference of Population and Development (ICPD) Programme of Action as well as to the Fourth World Conference of Women (FWCW).

One of the priority areas in the ICPD Programme of Actions is adolescent reproductive health. Worldwide concern about adolescents' sexuality and RH has been translated to research, advocacy and education programs and projects. Efforts and initiatives have mushroomed and concern has become more pronounced as facts and realities about adolescent's lives are unfolded.

The increasing number of unwanted pregnancies, which in most likelihood, explain the increasing incidence of unsafe abortion complications, provides the impetus to greater efforts in addressing adolescents' problems. Moreover, the pandemic of HIV/AIDS and the spread of sexually transmitted diseases (STDs), a phenomenon globally observed to be on the upswing, exacerbate the concern.

Studies on adolescent RH in 20 countries in Africa, Asia, and Latin America show common themes which reflect sexual practices and health risk behavior (WHO, 2000). Sexual activity begins during adolescence and much of this activity is risky. Contraceptive use is not a norm and young people do not entertain the thought of the possibility of contracting HIV/AIDS.

On the national level, in conformity with the commitment to the Programme of Action of the ICPD, the restated policies on population management program focus on the reduction of teenage pregnancy, incidence of early marriage, and incidence of other RH problems.

The rationale for the foci on the specific RH issues mentioned above is borne out of the increasing trend on unintended pregnancies and induced abortion cases among adolescents which have prompted the Commission on Population (POPCOM) to highlight the above issues in their directional plan for 2001 to 2004.

Moreover, the POPCOM (2003) has noted an emerging trend towards more liberal views, attitudes, and behavior of the young. This trend is somehow influenced by an identified social environment comprising institutions like the family, the school, and the church. Other social elements that impinge on adolescents' behavior include friends/peers and media.

The Young Adult Fertility and Sexuality Survey 3 (YAFSS 3) found out that 17 percent of young people are not raised by both parents. The nurturance by a single-parent, either by a mother or a father alone or with partner, may have provided a different setting which shapes adolescent behavior. Even children raised by both parents receive little or no attention, much

less guidance from parents (POPCOM, 2003). Intra-family interaction is minimal, thus media, notably television, impact more than the family in developing values and attitudes of the youth.

Another salient finding of the YAFSS 3 study is the pervasive influence of peer groups on the whole gamut of adolescent behavior, attitude, and manner of speech, appearance, interests and activities. Tan (2002) and Conaco et al. (2003) explain the importance of peers in an adolescent's life, primarily because friends provide social and emotional support.

A study of the Health Action Information Network (1997) noted that adolescents are concerned about their RH but have no access to information they need. Inaccurate information is gathered from peer groups, media, and other informal channels. Osteria(1997) also found out that open and honest discussion regarding sexuality is not encouraged by parents.

The nationwide study of YAFSS 3 gives us the picture of Filipino adolescents. It provides us with information on their views, knowledge of, and attitudes towards various elements. It also presents facets of sexual and nonsexual risk behaviors.

One of the highlights of YAFSS 3 reveals that smoking is gaining popularity and that high level of smoking is practiced by young males, those in their 20's, out-of–school and with low educational attainment. Higher incidence of smoking is found among the Muslim youth than in other ethno-religious groups.

In like manner, alcohol consumption is also on the rise among the youth with near equal distribution between male and female drinkers. Early sexual engagement has indicated an upswing from the 1994 level with those out-of-school youth having the preponderance to engage in early sexual relations.

The YAFSS 2 and 3 surveys provide a clearer picture of Filipino youth. Supplemented by other small studies, the YAFSSs provide greater, which explain the increasing propensity of the young people to health risk behavior.

However, information about adolescents' knowledge and practices relative to RH and rights at the local level is deficient if not non-existing. The YAFSS 2, for instance, in describing the RH of Northern Mindanao youth, pointed out that majority still hold conservative views about sex, marriage, and related reproductive issues, yet a significant number engage in premarital sex.

The lack of data at the local level makes it difficult to plan and design local initiatives and RH interventions. In order to identify these needs, it is imperative to know the extent and level of knowledge, attitudes, and practices of the youth, thus this study is implemented. The deficient knowledge about adolescents and their RH as shown by various studies demands information dissemination and education. But approaches to information dissemination have to be tailored to the needs of adolescents in particular communities.

II. Objectives of the Study

The main thrust of this study is to gauge the extent and the level of RH knowledge, attitude, and behavior of adolescents, ages 13 to 19 years, in selected communities of Region 10.

To translate this broad aim into manageable and measurable objectives, the following are enunciated:

- To determine urban-rural differentials in degree of awareness and knowledge of adolescents regarding the elements of reproductive health;
- To uncover perceptions and attitudes as well as misconceptions, and traditional prevailing beliefs regarding sex and sexuality;
- To determine sexual and non-sexual risk behavior of adolescents; and
- To probe into the health-seeking behavior of adolescents in the context of different social milieus and to identify constraints and problems encountered in accessing RH services.

III. The Methodology

The Research Design and Methods of Data Collection

This research is formative in nature, thus, it calls for a qualitative approach. Descriptive in design, this investigation delved into patterns, levels, extent and themes in reproductive knowledge, attitude and behavior. Triangulation of data collection methods becomes an imperative to gain insights and to uncover layers of realities otherwise not captured in the nationwide research of YAFS 3 and other quantitative adolescent studies.

Two methods of data collection were utilized: focus group discussion (FGD) and in-depth interview (IDI). Deemed to complement each other, the two methods employed similar data-gathering instrument.

The Study Coverage

Two provinces (Lanao del Norte and Misamis Oriental) of Region 10 are the coverage areas. Participants of FGDs and respondents of IDI are drawn from two different types of communities (barangays): rural and urban. In each of these types, three categories of adolescents were drawn as participants of the study: Christian, Muslim and Lumad.

This grouping is expected to yield variation by rural/urban location and by ethnic affiliation; differentials by these classifications may reveal appropriate interventions tailored to address their particular needs.

Participants and respondents for FGDs and IDIs, respectively, were invited to participate in the study by a focal person. Homogeneity criteria include: age (13 to 19 years of age), sex, and place of residence.

To get a better grasp of the coverage and the allocation of participants and respondents by community the following data are given:

TABLE 1. Distribution of Purposively Chosen Community By Type of Data Collection Method.

Community		No. of FGD Sessions	No. of IDI Respondents
Urban			
	Muslim	2	10
	Christian	2	10
	Lumad	2	10
	Total urban	6	30
Rural			
	Muslim	2	10
	Christian	2	10
	Lumad	2	10
	Total rural	6	30
	Over-all total	12	60

The Respondents and Participants

A total of 60 adolescents were respondents of in-depth interview. The 12 FGD sessions yielded a total of 76 participants. Overall, 136 adolescents constitute the coverage of the study. A brief description of their composition is given in Table 2.

The respondents in this study are equally represented by sex. The average age is 16 years old and four out of every five respondents are currently in school. One out of every seven respondents does smoke; one out of four does drink hard liquor. A close examination of their profile indicates that rural adolescents (Muslim and Christians from rural areas and Lumad) have the greater tendency to engage in this risky behavior.

TABLE 2. Distribution of Respondents By Selected Socio-Demographic Attributes

Respondents	IDI	FGD	Total
Total number of respondents	60	76	136
Percent male	52.0	48.7	50.0
Average age	15	16	15.5
Percent currently in school	83.3	78.9	80.9
Percent who smoke	16.7	14.5	15.4
Percent who drink hard liquor	30.0	23.7	26.5
Percent raised by single parent/grandparents/relatives	26.7	38.2	34.6

The Instrument

An instrument was developed for both FGD and IDI. Integrated into the instrument are loose copies of informed consent and information screening sheets.

Question content of both instruments is similar albeit a lot of "probing" was made as an integral part of in-depth interview for the purpose of delving deep and drawing more insights. The information sheet has the following data: name, sex, age, highest grade completed, parent's education and occupation, number of siblings, ethnicity, and whether or not he/she smokes or drinks hard liquor.

Of the 10 elements of reproductive health, the study focused only on the six which are relevant to adolescents, namely: 1) family planning, 2) RTIs/HIV/AIDS, 3) violence against women and children, 4) adolescent and youth health, 5) education and counseling on sexuality and sexual health, and 6) prevention and management of abortion and its complications.

The instrument was pretested on two groups of adolescents, male and female. Refinement and modification of the instrument was done on the basis of pretest results. A few questions were added and the topics were re-arranged to lead to a better flow of discussion and interaction.

The Observance of Research Ethics

Extracting information from adolescents demands observance of ethical principles on informed consent which involves assurance of confidentiality, respect for privacy, and voluntary giving of information. In every FGD session and in every adolescent interview, the facilitator/interviewer explained the objectives of the study, assured confidentiality, and requested for voluntary participation.

Request and approval to record the FGD proceedings in the tapes as well as to take pictures (for inclusion in the report) were obtained from participants prior to the discussions. The same procedure was followed in obtaining consent for in-depth interviews.

The Mode of Analysis

This investigation is basically a formative research. As such, the analysis of the data contains minimum presentation of numbers and figures.

The qualitative nature of the study and the intended use of information necessitate a kind of reporting in which the user needs rather than scholarly norm is important. Thus, clarity, relevance, and applicability are the major considerations.

Guided by Neuman's typology (Neuman, 1991) and the methods of Miles and Huberman (1984), the data analysis utilized method of agreement and method of difference. The former focuses on the commonalities among the various groups of adolescents while the latter highlights the differences.

The agreement and difference methods can be captured through the content summary sheet. Devised by Miles and Huberman (1984), this sheet demonstrates different perspectives and contains sets of topics and subtopics in which respondents views and ideas are recorded producing a summary of information.

The process of analysis involves the following steps: transcription of FGDs and IDIs, immersion of researcher through the transcribed proceedings and interviews, establishing familiarity with the context of segment (topics), preparation of context summary sheets, displaying and describing the data, and analysis/interpretation of data either by layering or bracketing.

IV. FINDINGS OF THE STUDY

Knowledge of the Elements of RH. In general, irrespective of sex and ethnic affiliation, adolescents covered in the study have very deficient knowledge of RH. Their understanding is not only too generic; it is sometime off-tangent. The answers are insubstantial as evident by the following one-liners: *"kanang health..."* (about health...), *"kanang panglawas..."* (about one's health...), *"Ambot, wala ko kabalo ana."* (I don't know about it.), *"Nadunggan na nako na pero nalimot ko."* (I heard about it but I forgot.) A few answers were culled from the transcription and listed in Box 1.To gauge how they situate reproductive elements, prompt questions were asked and respondent had to determine whether an element falls under RH or not. Quite a number of them were able to give satisfactory answers.

BOX 1. Selected Responses to the Question "What Do You Understand By Reproductive Health?"

"*Wala pa ko kadungog ana, karon pa.*" (I have not heard about it, only now.) 18 year old Muslim male,
high school student

"*Reproductive health, kanang parts sa atong body. Unsaon pagkuan sa imong lungs, sa heart, unsaon pagkuan sa health, kanang exercise nga dapat sa body.*" (Reproductive health is about the parts of the body, how the lungs...heart...about health ...the needed exercise for the body.)
13 year old Muslim female,
high school student

"*Morag wala man ko kasabot kaayo anang reproductive health. Kanang reproductive health dili ba na siya kalambuan? Karon pa sad ko kadungog ana.*" (I don't really understand the term reproductive health. Is it not about progress? This is the first time I heard of it.)
18 year old rural male,
college student

"Having the curiosity and as a result having a baby."
17 year old rural female,
high school graduate

"*Morag something nga reproductive health, when you say reproductive health, it talks about organ nga maka-reproduce.*" (It is something about reproductive health, when you say reproductive health, you're talking about organs for reproduction.)
17 year old Lumad male,
high school student

Family planning, pre- and post-natal care, cancer of the reproductive organs, and adolescent sexuality are affirmed as part of RH.

The inclusion of family planning as an element of RH is adjudged by most adolescents as necessary to limit the number of children for economic reason and not for the health of both mother and child.

Prenatal and postnatal care, sexuality, and cancer of the reproductive organs are unanimously agreed to be under RH while prevention of abortion and management of its complication and violence against women and children are perceived by some to be excluded as RH elements.

The exclusion of abortion is premised on moral and legal concerns while violence against women and children is justified on the notion that the act is not about health.

Inspite of the limited and deficient knowledge about RH, majority of respondents are in accord that RH is important.

Reproductive Rights. In like manner, respondents' knowledge of reproductive rights is deficient, the range and scope of which are seen in a myopic perspective. Quite a number of respondents/participants affirmed not having any idea about the concept. In fact, some are candid to admit, it is their first time to hear the term "reproductive rights."

Respondents who have some notion about reproductive right equate the concept with human rights and children's rights. The most common mentioned are the right to be free from abuse and right to education (Box 2).

Box 2. The Understanding of Reproductive Rights: Selected Responses

"*Right sa babaye nga kung gidugo siya, gisapot siya kinahanglan nga sabton siya. Ang gidugo dili na lang sugoon.*" (It is a girl's right to be dealt with patience when she is having her menstrual period. She should be made free from household chores.)

17 year old rural female,
high school graduate

"*Dili ka kasab-an o bunalan dayon ug dili ka katuman sa sugo. Dili pabantayon sa bata ug gabii na.*" (Not to be scolded or physically punished when you fail to do your assigned chores and not to be made to baby-sit at night time.)

14 year old female raised by a
single parent, high school student

"I'm already at the right age; I have the right to bear babies. I have the right to choose *kung sino yung gusto kong husband.*" (whom I want to be my husband.)

17 year old urban female,
college student

"*Karapatan sa anak, kung unsay kinahanglanon sa anak; mahatag sa iyaha.*"(The right of a child. To be able to provide the child with whatever he/she needs.)

16 year old Muslim male,
high school student

"*Naay katungod nga magbu-ot kung kanus-a ka gusto makig-sex.*" (The right to decide when to engage in sex.)

14 year old urban male,
out-of-school

Experiences of Physical Abuses. A confluence of physical changes, cognitive growth and social environment shape adolescent's orientation and personality. The same factors also explain the young's vulnerability to abuses (Box 3).

All respondents, regardless of rural/urban residence, ethno-religious affiliation and sex, claim to have experienced abuses, either physical or verbal. The males, however, are prone to be inflicted with physical abuse compared to their female counterpart. Muslim males reportedly received more physical abuses than the Christian or the Lumad.

In nearly all of the instances of physical violence, it is the father or the mother who is the perpetrator. Aside from them, reported abusers include older brothers and *barkada* (peer). Being punched, slapped or hit with a belt is justified by recipients to be a form of discipline. The common reason in most cases is going home very late at night or near dawn. Aside from going home late, skipping school and not doing the assigned chores are triggers for receiving physical punishment.

Parents in general react to their adolescent children's propensity to talk back when scolded, perhaps when reasoning out, offering alibis for misdeeds or explaining. This act of talking back is construed by parents as a show of defiance and disrespect, thus provide justification for the physical harm done.

Queried as to the reactions to physical hurt, respondents of both sexes say that the usual responses are crying, grumbling, or even running away. The latter is practiced by males more than females. A number of respondents though either accept or rebel against the physical punishment. Acceptance is justifying the violence as a form of discipline and as a befitting punishment for their disobedience and misdeed. Rebellion is their running away or keeping on doing the things they are forbidden.

The selected episodes of abuses and vignette in Box 4 provide portraits of family violence. Moreover, the experience (Box 4) leaves a deep imprint in the mind and perhaps the soul of the victim as gleaned from how he or she vividly remembers details and dates even when it happened many years ago.

Verbal Abuse. Physical and verbal abuses almost always go together. Seldom, if ever is physical violence not accompanied with verbal ranting. But the latter does not necessarily lead to physical abuse.

Verbal hurt is commonly inflicted by mothers of both male and female youth. The painful instances are cursing, wishing they had not given life to him/her, insulting them in front of neighbors and friends and belittling their accomplishments.

Box 3. Experiences of Physical and Verbal Violence as Culled and Translated from FGD and IDI Transcriptions.

"It all started when my younger sibling bought some quickchow noodles. We had a fight because she didn't want to share it with me. Our bickering annoyed my father and it came to a point when he hit me. '*You should be more understanding because you're older,*' he said. Yes, I was spanked and I cried. I told them that I'd rather kill myself since I feel I'm no longer needed in the family. I told them why is it always me who receives the scolding and the punishment? That's my experience."

15-year old female Muslim

"I'm always at the receiving end of my brother's fist and beatings whenever he throws a fit. I am treated abominably and to think that I'm the one who prepare the food he eats. I told my mother about it and she said to just leave things that way and there's nothing that can be done because he's under the influence of prohibited drugs. He started using it when he got separated from his wife."

13-year old Christian male

"I always receive harsh words from my mother especially when I don't do the things she wants done. She shamed me in front of my friends and called me stupid because accordingly I simply couldn't do what I was told. I really feel humiliated because I'm already a teenager and no longer a child."

18-year old nursing student

"I experienced being verbally abused by my mother who is used to calling me names even with the slightest mistake that I made. I don't dare to talk back because I don't want to fuel her anger. Aside from that, my older sister always teased me that I'm not their brother because I'm not that handsome or as beautiful as they are. Even if it is only a joke, it still hurts me."

16-year old male raised by a single parent

"Yes, a lot of times I experienced being scolded by my mother but I know it is my fault. Like for instance, she told me '*Raf, be home by six so that we'll have dinner together.*' But then, I ended up going home at ten in the evening. Of course, it made her so angry because she waited for me as what we have agreed. The worst thing was I did it in three successive times. The other incident was during my high school days when I still used to cut classes and that really made her mad. For me, I'd rather receive physical rather than verbal abuse, the former is more bearable."

17-year old male raised by a single parent

Labeling is hurtful to a handful of female and male adolescents. Being called "*tanga*" (stupid) is considered demeaning and strips them of their dignity.

The usual response to verbal violence is to ignore, to suffer the hurt in silence, and to rationalize the act. The experiences are not isolated cases; for some respondents, these often occur in a turbulent family setting.

Bickering between siblings in some instances can be considered a healthy exercise but there are times when it goes out of bounds. There are reported instances of younger siblings physically or verbally hurt by older brothers or sisters.

HIV/AIDS and STDs. Nearly all respondents covered in the study are able to identify HIV/AIDS and STDs or infections which a person can get through sexual intercourse.

Box 4. A Vignette on Physical Violence: Looking Back and Reliving the Pain.

"I had a very painful experience both physically and emotionally because I happened to disobey my aunt. I was living in her house then. During that time, there were two of us who stayed with her as working students. It was the 29th of February; the other working student went to Camiguin for a vacation because it was their town fiesta. My grandparents (my aunt's parents) and I were the only ones left in the house. My aunt works in the Department of Agriculture and was assigned in Bukidnon. It was her routine to go home only during Saturdays and Sundays. It happened on a Wednesday, and I didn't expect her to be home because her usual schedule in going home is during weekend. I was 12 years old then and I was in grade six. When I arrived home from school, I wanted to go out and play. I have no chance to go out and play with my friends when my aunt is around because she's so strict with the household chores. So, when she's out of sight that's my only chance to play, except for the vacant time I have when I'm in school.

That afternoon before I went out of the house, my grandmother told me to feed the hogs first. But I was thinking that it was still too early to do that so, instead I went out to play thinking I could do the feeding later. I was so engrossed in playing that I forgot the time. It was already about eight in the evening, when a friend told me that, "*Nard, your aunt is coming!*" I was terrified because the word "aunt" itself scares me off. When she arrived, she immediately grabbed my hair and pulled me away from them. She even scratched my back with her long fingernails that it left a lot of scars that are still visible until now. She dragged me by holding on to my hair all the way home. She brought me to the house and had me seated on a chair and there beat me up real hard that I thought I was going to die. I was even hit by a piece of wood with enough force to knock my senses away. I was not able to do anything; I knew it was my fault because I disobeyed her. I thought of it as her way of disciplining me as it was my mistake. But the truth is it really caused me so much pain. She even said that if she were to find a knife she would have stabbed me. She didn't stop beating me until it was ten in the evening. Then, when she realized I had enough punishment she stopped and told me gently, "*You know that they (her parents) are already too old to be*

> *left by themselves, so next time do not leave them alone and before you go outside, make sure that you do all chores assigned to you because it is already hard for them to do it for you, to look after the hogs, and to cook.*" Maybe she realized she overdid the disciplining. At that time I rationalize maybe it was because my aunt is an only child, and she really loves her parents so much that she's able to do that to me. Up to now I don't think I am able to forgive her completely because it is still painful to recall that episode in my life. But, there's nothing I can do. I was under her abode at that time and it's impossible to talk back or even to reason out. Because of what happened, I became a sensitive person. I'm beginning to mind every negative comment I hear about myself, most of all, when people accuse me about something I didn't do."
>
> 19-year old Lumad male
> high school student

This knowledge cuts across ethno-religious affiliation and rural/urban residence. The identification of AIDS is always associated with STDs/STIs, which covers a broad range of specific STDs.

The high awareness on HIV/AIDS and other STDs can be a result of massive campaign and advocacy work of government, NGOs and civil society. Symptoms of HIV/AIDS, however, are not clearly articulated. The general consensus is the manifestation of weight loss, paleness, weak feeling, loss of appetite, and cough.

On the other hand, symptoms of STDs/STIs are unanimously expressed which include: painful urination, presence of pus in the urine or discharges, foul smell coming from the genitals, and lower abdominal pain.

Adolescents, regardless whether male or female or whether from rural or urban areas, are knowledgeable about ways by which one can acquire STDs. The predominant answers revolve around having sex without protection and having multiple partners. Mention of acquiring the disease through injection was given by few respondents.

Use of condom is also mentioned as a way to avoid being infected with AIDS or any sexually transmitted disease. A few males from both rural and urban areas claimed that to avoid such diseases, a person has to have sex only with his wife.

Nearly all respondents believe that AIDS is non-curable and an infected person will die sooner or later.

The data show that respondents are knowledgeable about STDs/STIs, how the disease can be transmitted and how it can be prevented.

Admittedly however, there are knowledge gaps which need to be addressed. The disquieting fact is the misconceptions on AIDS which few adolescents had verbalized (Box 5).

Box 5. Misconception Regarding HIV/AIDS Gleaned from Selected Responses

"Ma-acquire ang HIV / AIDS sa pag-kiss, kung ang laway sa babae makuan sa lalaki." (One can acquire HIV/AIDS through kissing, when an infected woman's saliva is passed on to the man.)

14 year old Lumad male,
high school student

"Kanang paggamit sa gamit sa naay AIDS." (When you use the personal effects of a person who has AIDS.)

13 year old urban male
high school student

"Sa pakig-sex, sa laway, sa sweat, mag-use ug personal nga gamit sa naay sakit nga AIDS." (From having sex, from the saliva, from the sweat of an AIDS-infected person and from using his personal things.)

17 year old rural female,
high school student

"Ang AIDS kanang usually mga lalaki ang matakdan. Matakdan ka sad kung duol-duol ka sa nag-ubo unya nag-atubang ka sa iyaba." (It's the men who usually get infected with AIDS. You can also be infected if you happen to be near an infected person when he coughs.)

16 year old Lumad female
high school student

"Kanang sa grade school man gud, ingon bitaw ang maestra nga kung molingkod lang ta sa iyang gilingkuran matakdan na ka." (While in grade school, a teacher told us that you will get infected when you happen to sit on space previously occupied by an infected person.)

15 year old Lumad female
high school student

The notion that HIV/AIDS can be transmitted by kissing, by using personal effects of a person with AIDS, by being near a person when he/she coughs and by sitting on seat previously occupied by an AIDS infected person has implications on how a person with AIDS would be treated in the family and the community.

Family Planning. The responses of adolescents indicate that family planning is the same as contraception. Family planning is described as "*to plan or limit the number of children*," "*planning of family size*," and to control the number of children. A few understand the term as "*birth control*" while there is a very small number who thinks family planning means a comfortable life and to become economically better off.

Contraception is about preventing pregnancy and as a barrier from getting pregnant. Added to the definition is equating contraception to specific methods like pills, IUD, condom, etc.

Among the various family planning methods, they identified condom (as barrier method), pills, ligation, injectables, IUD and vasectomy as modern contraceptives. Calendar is believed to be the best method. A handful of respondents also identified abstinence and withdrawal.

The citation of the advantages of different methods does not yield much information. The repeated answers revolve around the usefulness of a method to prevent pregnancy. However, male respondents cite the advantage of condom for paid sex because the method protects them from STDs.

The descriptions given about contraceptives are not only limited, some are misconceptions, to wit: "Taking pills will result to giving birth to an abnormal child","Use of Depo will make a woman feel faint","Condom use is not acceptable to men; they find it unsatisfying to use", "Pills have lots of side effects—either weight gain or weight loss","Condom is not effective because it leaks", "Rhythm is unreliable, too taxing for a couple to count and determine the safe period", "IUD is believed to cause cancer of the vagina and the ovary."

Much of what adolescents know about family planning methods are obtained from various sources: media (mostly television), peer, school lessons, neighbors and relatives, and advertisements in print and on radio.

Four out of every five adolescents interviewed signified their interest to use a family planning method when they marry. However, a few male respondents from rural and Lumad areas declared not having any intention to use family planning methods in the future. They reasoned that since they are married, there is really no need. Using condoms especially, is thought to be boring, inconvenient, and may diminish sexual pleasure.

"Di na ko mogamit kay minyo na man. Ako na man nang asawa." (I will not use one when I get married. After all she is already my wife.)

"Alang-alang naa na gud ka didto, mogamit pa lugar ka?" (Why should I use one, when I'm already settled?)

"Walay lami ang condom kay mora ka ug gakaon ug candy o saging nga wa pakpaki." (It's not pleasurable to use condom, it is like eating candy or banana without peeling it.)

A handful of Christian respondents viewed usage of contraception as a sin in the eyes of God. However unplanned or unwanted the pregnancy, it is a gift from God which should be cherished, appreciated and ultimately seen as a blessing.

"Lain man gud mogamit ana kay wala man ka magsunod sa balaod sa Ginoo. Ingon man ang Ginoo nga go to the world and multiply unya di na hinoon ka manganak?" (It is not good to use it because you are disobeying God's will. God said '*go to the world and multiply*' so why should we prevent ourselves to have children?")

"Ang Ginoo ra man untay mahibalo." (It is God's will. [if you will have children or not])

"Kay kung wala gyud gituyo nga maburos, di bali gihatag gyud na sa Ginoo." (If the pregnancy is not planned then God wills it.)

Knowledge and Attitude Regarding Sex and Sexuality

The respondents for this study, regardless of sex, ethnicity, and urban/rural location, all exhibited knowledge of changes in their anatomy as well as in the cognitive and psychosocial aspects of their being.

Prior to the onset of menstruation, girl respondents were already aware of the enlargement of the breast, hips, thighs and girth. The beginnings of pubic hair growth as well as hair in the armpits were not missed out from their observations. The breakout of pimples in an otherwise smooth face is a source of consternation. Weight increase and smoother skin are also observed changes. The onset of menstruation is a major event for female adolescents; it ushers a new consciousness and subsequent change in behavior.

The boys enumerated the physical changes they noticed. The presence of an "Adam's apple," the deepening of voice, growth spurt in height, bodily hair and the appearance of facial hair or moustache, all lead to the manifestation of a transition stage from childhood to adolescence.

Aside from the physical, respondents also identified psychosocial and emotional changes. Feelings of being self-conscious, shy and awkward are common. This is manifested by the lack of enthusiasm and desire to play the usual childhood games and less interaction with people younger than them. Attraction for the opposite sex begins to manifest. Having crushes, admiring somebody – a a peer, a classmate or a neighbor – is prevalent.

Likewise, they also notice changes in their relationship with significant others. Their manner of speech, their being conscious of what they wear, and their preponderance to be more physically attractive somehow indicate their stepping into a new threshold of life. In terms of health, adolescents from different communities, both male and female affirmed their improved hygienic practices (Box 6).

Box 6. Feelings on the Changes Experienced: Selected Views

"Lain kay kung ang imong ilok baho, ma-ulaw ka. Sa mga pimples, unya sawayon ka nga dagko kaayo." (Uneasy especially when your armpits smell, you're embarrassed. You're conscious of your pimples, especially when somebody takes potshots of their size.)

17 year old Lumad male,
high school student

"Sa una kay pagdako sa akong totoy, sakit. Misamot ko kahadlok kay ang akong totoy gamay ang isa, ang isa dako. Nahadlok ko pag-mens. Kalit lang mi-agas nga wala ko kabalo. Gidugo na man diay ko." (I was scared when my breast started to enlarge, it was painful. Then my fear worsened when I noticed that one breast is bigger than the other. I was also scared when I had my first menstrual period, it just came out and I was not aware what it was. It was only later that I realized I was having my period.)

15 year old Lumad female
high school student

"Happy ko kay at least naay kausaban sa akong lawas. Dili parehas sa atong wala pa ka madalaga nga dili pa kaayo nimo i-care ang imong kaugalingon."

(Happy because at least there are some changes in my body habits. Unlike before that I didn't give much attention to myself.)

17 year old Muslim female,
college student

"*Sa akong linihukan bitaw. Silbi dalaga na gud. In-ana na manamit bitaw. Hindik na gyud. Arte na kayo. Naghindik na, dalaga na.*" (I'm conscious of my appearance and my actions because I'm already a teenager; what clothes to wear and especially how to groom myself. I want to look neat because I'm already a lady.)

19 year old rural female
high school student

The meaning attributed by respondents to these changes, be it physical or psychosocial, is that they are normal or natural in the transition from childhood to adulthood. The general feeling regarding the changes can be summarized by the following statement given by an urban adolescent:

"I have mixed feelings. I am happy, excited; scared and embarrassed at the same time. Happy and excited that, yes, I'm finally a grown-up but scared and embarrassed to think I may not know what I'm doing."

18 year old urban female
college student

Discussion about Sex and Sexuality

Do respondents discuss these topics openly? Where or whom does one go to in seeking information?

Sexuality is a far more encompassing topic and respondents claim to have discussed this with their mothers. However, the discussion consists of advice and instruction to behave in a manner befitting a proper adolescent rather than educating adolescents about sexuality and health facts.

Prohibition to engage in early sexual relations, affording the opposite sex with respect and taking care of their body are the usual admonitions received by respondents from their mothers. Sexuality is not a welcome topic for quite a number of adolescents covered in the

study. Reasons include being embarrassed and being uncomfortable to discuss it. However, females are more likely to discuss this with their mothers compared with their male counterpart.

Both urban and rural females are at all times admonished not to enter into a boy-girl relationship. They have to behave in a way that will not attract prurient interest from the opposite sex, no late nights on the streets and no frequent going-out with friends.

The males on the other hand, are told to lessen association with "*barkada*," refrain from smoking, and not to have a steady relationship with a girl because that would ruin his chances to finish schooling.

A great majority of female respondents, irrespective of rural-urban location and ethno-religious affiliation pointed out their mothers to be the source of information and explanation. In contrast, their male counterparts overwhelmingly regard the peers to be their confidants, first and foremost. Close friends and classmates are the significant others to which respondents confided sexuality and related problems. The father as source of information or as someone to educate them is not at all mentioned.

There is no evidence of open discussion about sex and sexuality, whether the information is derived from the mother or from friends. Gossip and other forms of informal communication are also considered a source of information by the respondents.

The Notion of Going Steady. A boy-girl relationship is a common occurrence in all communities covered in the study. Most respondents admit that nowadays, adolescents in a relationship hold hands, kiss, have sex in dark deserted corners, beaches, in the boarding houses or, if they have money, go to lodging houses and motels. All these acts are considered normal. Holding hands is permissible in public but kissing and intimate sexual acts are done in private and in discreet manner.

An overwhelming majority, both boys and girls from all the areas believe that when one "goes steady" this entails an idea of permanence. Concepts of "the one" we intend to marry, making a firm and definite commitment to each other; becoming serious in the quest to find a mate where extracted from the following quotes: *"Magminyo. Kamo na gyud."* (Getting married. You're meant for each other.), *"Ready na sila magpakasal."* (They are ready for marriage.), *"Kanang sila na, wa nay angay manghilabot niya kay naa na gud siyay uyab."* (They are off-limits to others. They are after all already a couple.), *"Ako ra gyud, wa nay lain."* (I'll be the only one, there is nobody but me.), *"Magmalipayon, happy mi. mag minos na ang away, mag sinabtanay."* (We're happy together, have less quarrels, try to understand each other.)

A number of both boys and girls, mostly from the city or educated in the city, however consider having a steady boyfriend as something transitory. It is merely a rite of passage all adolescents must experience. There is no assurance of anything everlasting. "Having a steady boyfriend does not mean *na kamo na gyud, kay mag change pa man ang huna-huna. Dili man gyud*

na forever, magbulag ba kaha mo." (Having a boyfriend doesn't mean you are truly for each other because you or he might change your minds. It is not really for keeps, you may part ways at the end.)

The Practice of Early Sexual Engagement. Regardless of the different views on what "*going steady*" means, almost all respondents expressed vehemence against early sexual engagement. It is simply not acceptable (Box 7).

Box 7. Selected Reactions of Respondents on Whether or not Early Sexual Engagement is Acceptable

"*Dili man gud na dapat. Para lang sa ako dili na acceptable. Pero sa atong panahon karon dili man na siya malikayan. Mao gani nga daghan ang mangaburos tungod ana kay ila mang gabuhaton. Para sa ako kung maghimo gani ana dapat maggamit ug proteksyon.*" (It should not be. For me it is not acceptable. But in these times it cannot be avoided. That's why there are lots of girls getting pregnant because many are doing it. For me, if one indulges in it one should use protection.)

18 year old urban male,
college student

"*Kay ginadili man na sa balaod sa Ginoo nga dili magbuhat sa sexual nga mga butang kung dili pa kasal..*" (We are forbidden by God's commandment; we have to refrain from fornication when not yet married.)

18 year old rural male
college student

"*Para sa akoa wala pa gyud silay igo nga kaalam bahin sa mga sexual nga butang. Tapos kung ang babaye maburos wala pa'y ikapakita ang lalaki nga puwede na niya buhi-on ang babaye.*" (For me no because they still don't know anything about sexuality and if the girl gets pregnant the boy has no capacity to shoulder the responsibility and to provide for the girl.)

16 year old Lumad male,
high school student

"*Unsaon na lang nila nga wa pa man sila makahuman sa ilang pag-eskuwela? Unsay ilang ibuhi sa ilang anak—lisod kaayo kung manganak sila wala pa gyud*

silay nabibalo-an nga trabaho?" (How will they make it without finishing their studies first? How can they provide for their child? It's so difficult if you have children without a job to be able to provide for their upkeep.)

15 year old Muslim female
high school student

Ironically, more male than female respondents emphasized that those who are having steady boyfriends or girlfriends must refrain from early sexual engagement on the grounds that they are too young, they have to finish their schooling first or they have no jobs to support a family.

Granting that a young couple must refrain from doing the act, what if the condition or situation is conducive for a couple to succumb to the call of the flesh? Who initiates to have sex?

A larger number of respondents feel that it is the male who makes the first attempt, a notion contradicted by a few who believe that the female partner also makes the first move. But some explain that the act demands the consent of both. One respondent succinctly declared:

> *"Walang manloloko pag walang nagpapaloko. Sa ila na duha nga desisyon. Kay kung mo ingon kog boy lugar, manghanggat sa sex sa girl, dili man gyud sila mag sex ug dili musugot ang girl."* (There is no conning if nobody allows himself/herself to be conned. It is both their decision. If I will say it's the boy who initiates to have sex but the girl will not consent, no sexual activity ever takes place.)
>
> 16 year old high school female
> from an urban area

Given the constant admonition and reminder against entering into a boy-girl relationship, when and where does sexual activity take place?

Opportunity presents itself during birthday parties or going to disco or overnight outings with friends without adult supervision. The occasion affords the couple to detach themselves from the crowd and seek a dark corner or place to have sex. A few male respondents indicate doing sexual activity inside a jeep, along the seawall, or any deserted area designated as a dating place. When couples are alone or away from public sight or after consuming great quantity of alcoholic drink which makes them lose their inhibitions, they do it.

Unprotected Sex. Unprotected sex is understood by respondents as a sex act that would result to pregnancy. *"Having sex without control"* is the common answer without qualifying whether control means birth control. However, a handful of respondents equate the term to non-use of condom.

A few defined unprotected sex as an act done by those who simply would want it without regard to the consequences of their action. Some Lumad respondents differ on this belief. They think the practice of engaging in an unprotected sex is only for poor adolescents who have no resources to buy protection.

Views expressed above do not in anyway mitigate the fact that a large number of respondents say they no idea or that they have not heard of the term "unprotected sex." Those with knowledge believe that the disregard for protections happens when one or both of the couple are high from using prohibited drugs or when they are drunk. The state of stupor strips them off their rational thoughts or control of their sexual appetite.

Couples who are very much in love may disregard protection on the premise that anyway they are for each other or the female cannot say no to the partner who refuses to use condom.

People's Views and Attitude Towards Early Sexual Engagement

Adolescents believe that people's reactions to those who enter into a sexual relationship at an early age can be categorized into two: judgmental, biased against the female, and hostile attitude on the one hand, and tolerant but less respect for both the parents and the girl on the other hand.

The culture of shame or *"hiya"* in society is applicable only to the female species. The general public tends to look away from the male practice of early sexual encounter. Subtle implications on machismo, regarding the act as normal for the "male" tend to place the female at a disadvantage. A double standard enters into the picture with responses like:

> *"Okay ra man sa lalaki kay lalaki man siya, wa may nawala sa iya."*(Its okay for the guy after all, being a man, nothing is lost to him.)
>
> *"Mas maayo man nang lalaki nga hanas ug experienciado na."*(An expert and an experienced guy is better.)
>
> *"Ang lalaki kay mas daghan man silag natun-an."*(It is better if the man has a lot of experience.)

Female teenagers who engage in early sexual activity and get pregnant as a result without the benefit of a marriage ceremony bear the brunt of a more hostile reaction. They become

fodder of gossip, they are talked about, belittled, insulted and shown no respect. The respondents assert that the community sees the women in a very bad light, despite the fact that some women are smart and dedicated as exemplified by the following case:

> *"Ma-ubos ang pagtanaw sa mga tao sa ila, bisan pag unsa ka bright ang babae, mawala na bili sa katilingban. Kaduha na ko naka daug ug beauty contest ug honor student pud ko pero gi ingnan ko nga abi namo tarong ka, burikat man diay gihapon. Naubos ilang tanaw sa ako."* (People look down on you. Even though how brilliant the girl is, she is still worthless in the eyes of the community. I won twice in beauty contests and I'm an honor student too yet people still looked down on me and said harsh words like I'm a "tramp.")
>
> 17-year old single mother from a rural area, high school graduate

There is a strong implication that a woman's worth, her value, integrity and entirety hinges on keeping herself pure, unsoiled and virgin for her husband. Virginity is upheld as a value, a desirable trait that when a woman loses it, she seems not to be whole.

The intolerance and harsh judgmental attitude are evident in one liner quotes reflecting views of people regarding a female teenager, pregnant and unwed: *"Bikangkang diretso, walay sigurado."* (Willingly spreads her legs without thinking of the consequence.), *"Sige uban-uban sa lalaki busa maburosan."* (Always going out with the man so getting pregnant is the most likely result.), *"Kiat na siya nga babaye."* (That girl is an easy lay.), *"Burikat, uwagan, bata pa gani biga-on na!"* (A tramp, aggressive, very young of age yet already sexually active!)

About half of the male and female interviewees and discussants, notably those from the city gave a different community view. They stated that society places blame on the parents when their young unwed daughter gets pregnant. The parents have failed in raising their daughter right, lacked a firm hand or didn't care enough about their daughter's well being.

> *"Kana siya nga babae dili na gina-care sa iyang parents kay tan-awa naburosan siya, Kung gi tan-aw gyud na siya o gibantayan dili na siya ma ingon ana."* (That girl is not given appropriate care and attention by her parent, that's why she gets pregnant out of wedlock. If only her parents cared she will not end up that way.)
>
> 19-year high school student from a rural area

> *"Ilang pag-tanaw kay kini nga babae wala gyud ni siya gidisiplina sa iyang mama. Kanang ingana gipasagdan ra na siya. Wala na siya kabalo nga sayop siya. Gapasagad ra na siya mao na siyang na ing ana na siya."* (They see the girl as unfortunate to have a mother who doesn't know how to discipline her daughter. The mother doesn't give a damn about what will happen to her child. So the girl doesn't know she is wrong. There is no one to guide her that's why she became like that.)
>
> 18-year college student
> from an urban area

Somehow respondents notice the older generation is more harsh and ready to judge negatively the female. The younger people are more understanding and compassionate on the plight of the girl.

Concepts like "*be a man*" and "*take responsibility for your actions*" are used to compel and persuade a young man to marry the girl. Taking responsibility for one's action in that context is now a reactive action rather than a preventive or proactive action. The use or non-use of contraceptives then becomes an afterthought rather than forethought, which should have been at the forefront of rational and responsible action.

Early and Unwanted Pregnancy

The terms unplanned, unintended and unwanted pregnancy may differ in meaning and nuances. In this study however, these three terms are used interchangeably and no attempt is made to delineate one from the other.

The adolescents in this study are unanimous in claiming that early and unintended pregnancy can possibly be the consequence of unprotected sex. Ironically even those who professed to have scant or no idea about unprotected sex agreed that such an occurrence has greater likelihood to happen.

According to the respondents, three possible consequences of early sexual engagement without protection are: unintended pregnancy, early marriage, and the possibility of acquiring HIV/AIDS or STD infections.

Getting Pregnant. Early pregnancy, also referred to as teenage pregnancy, may or may not result to marriage. A young female adolescent who gets pregnant may be married to the person who impregnates her. Parents may likely intervene by compelling the boy to marry their daughter.

All female respondents know that getting pregnant is a big problem. Likewise all male respondents dread knowing that their girlfriend is pregnant because of the consequences

they will have to face. The males foresee the likelihood of one being forced to marry even when one is not ready or one may be sued or jailed.

A Muslim male youth predicts the likelihood that his family will either pay for getting the girl pregnant or it could be the start of a "*rido*" (clan war) if they are unable to meet the stipulated payment. On the other hand, female Muslim respondents mention that young women in general live in constant overwhelming fear if the girl gets pregnant early. Consequence of this act is very grave. One fears for her life since it is a customary practice for parents to kill their impregnated daughter. Hence, using an abortifacient is believed to be a better choice.

Majority of respondents of both sexes whether from rural or urban areas, acknowledge that getting pregnant is an *economic catastrophe*. Since they have yet to finish their schooling, the chance of getting a job is nil if one has no credentials or skills.

The economic constraint mentioned above will spawn another chain of problems. There are difficulties in supporting a family – no money for a costly birth delivery and to pay for the infant's needs, and no resources to start married life with. These will most likely create a great burden for any young couple.

The social cost of early pregnancy is also not lost to the respondents' consciousness. The act of the couple will bring shame to the family, stress to parents (notably parents who are overseas contract workers), loss of face for the young girl especially if she is promising intellectually and physically, and loss of trust and respect of parents, relatives and friends.

On the personal level, the predicament of getting pregnant is deemed by both sexes to be a barrier to the realization of their dreams and aspirations. The loss of trust and respect of significant others will surely make a dent in their self-esteem, as enunciated by female respondents.

Risk Associated With Unintended Pregnancy. A plethora of risks was enumerated by respondents (Box 8). There seems to be differences in their identified hazards of unintended pregnancy in terms of ethno-religious attribute and sex of respondent.

Box 8. Identified Risks Associated with Unintended Pregnancy. Selected Responses

"*Ang ubang parents dili na maghunahuna ug mopatay na bitaw sa anak. Puwede gani imong Papa ang mopatay nimo.*" (Other parents would lose control and think of killing the girl. Most likely it's the girl's father who will kill her.)

17 year old Muslim female,
out-of-school

"Sa pag-anak na nako na-realize ang risk. Na trauma ko kay 3 days ko nag labor. Dugay kaayo migawas ang baby. Abi nako ma caesarian ko. So naka-ingon ko nga mamatay na man siguro ko tungod sa kasakit. Ingon ang doctor nga bata pa kaayo ko dili pa ready ang akong body." (It was only during the actual delivery that I realize the risk [of an early pregnancy]. I was traumatized because I was in labor for 3 days. It was a very difficult delivery. I thought I'll have to undergo a caesarian section. I was thinking I'm going to die because of the intense pain. The doctor told me it is because I'm still so young and my body is not yet ready.)

17 year old rural female
high school graduate

"Nag-transfer ko ug eskuwelahan sa Cagayan de Oro, pagdako dayon sa akong tiyan, mi-transfer na sad ko sa Jasaan. Nagbayad mi ug dako aron maka-graduate lang ko." (I had to transfer to another school in Cagayan de Oro. When my pregnancy started to be noticed, I had to transfer again to Jasaan [another town]. We paid a considerable amount so I can be admitted and be able to graduate.)

17 year old former student of a
Catholic high school

Health risks are acknowledged to be a greater concern for females more than the males. The youth in the study are aware that early pregnancy is a risk to the female since her reproductive system is not yet fully developed. There is the probability of her dying during childbirth or of delivering a still-born.

There are also risks associated with reactions of parents upon learning that their daughter is pregnant. One sure reaction is anger, which will trigger negative actions. The boy, in Muslim culture, could be mauled or even killed by the girl's relatives. The impregnated female may likely be driven out of the house and support for her schooling and other needs withdrawn. Also in Muslim culture, the pregnant girl will most likely be forced to leave the community and will be considered dead by family and relatives. They would have written the girl off, forever forgotten and her name never to be spoken in the family.

"Pag ang nanay mo naka-alam sa iyong ginawa at pinalayas ka niya, para kana ring patay sa kanila. Hindi na nila gustong pag-usapan ka dahil patay ka na."

(When the mother knows what her daughter has done, the girl is thrown out of the house and considered dead. Her name will never be mentioned; nothing will be spoken about her because for the family, she is already dead.)

The other risks identified by respondents involve the possibility of making wrong decisions. The fear of parent's reactions and the dread of stigmatization may lead to the decision of the boy to run away and abandon the girl. In like manner, the couple or the girl may decide to have an abortion.

The confluence of parent's anger, the little or no support from the boyfriend, and the rejection of friends and relatives may force the girl to consider abortion as an option. Gauged from the responses of male and female respondents, this seems to be the first and initial reaction after knowing about the pregnancy.

Deterrents in terminating a pregnancy are varied. Fear of God, renunciation of sin, the voice of the conscience – all influence the decision not to push through with the intention to abort.

"Dawaton nalang nimo na mabuntis ka, kaysa imong ipalaglag. Doble na na nuon imo sala." (You have to accept the fact that you got pregnant. If you resort to abortion your transgressions will multiply.)

16 year old Lumad male,
high school student

"Oo hapit gyud ko makasala kay nangita gyud ko ug paagi nga maabort ang akong gibuntis. Wala man koy nadaganan or naduolan. Nahdalok man sad ko. Nadala na dayon sa estorya sa boyfriend nga dili na lang ipaabort. Nakonsensya pud ko." (Yes, I nearly committed a grave error because I looked for ways to abort my baby. But there was nobody I know who could help me. I had fears too of committing a major sin. Then I got carried away by my boyfriend's pleas not to go through with the abortion. My conscience also bothered me.)

17 year old female
from a rural area

In some instances, according to respondents, the realization that one is neither the first nor the last to become a mother out-of-wedlock is also a reason not to terminate the pregnancy.

> *"Upat mi kabuok friends naburos ug dungan. Wala man sad gipakuha. Murag gidawat na lang sad namo kay daghan man mi. Okay nalang kay daghan pud mi nahitabo-an."* (There were four of us friends who got pregnant at the same time. None of us resorted to abortion. We all accepted our fate because, well, we were not alone. There are many of us out there who have the same fate.)
>
> 17-year old female from a rural area

The alternative option mentioned by a handful of male and female respondents is the thought of giving up the child for adoption.

What other bad things can happen? A handful of interviewees mentioned that the problem of early and unintended pregnancy would be seemingly insurmountable, that the boy or the girl may contemplate suicide. The non-support of parents and the feeling of insecurity are enough to drive a young couple to resort to prohibited drugs and alcohol.

Another thing most likely to happen in this condition would be the possibility of early marriage break-up. The hardship, the trauma, and the seemingly bleak future will lead to daily bickering and blaming which can eventuate to separation.

Induced Abortion. The questions about induced abortion call for answers that would indicate respondents' knowledge on how to avoid getting pregnant and about practices to terminate unintended pregnancy. Their responses indicate a consensus that if the pregnancy is unintended there are two options: one is to have induced abortion or the other is to allow the pregnancy to develop to full term and deliver the child safely.

One insight brought to fore is that only a very few respondents are oriented towards prevention of unintended pregnancy. The overwhelming response of teenagers is to submit oneself to induced abortion. The reaction is true for both males and females from various areas. Although they are not familiar with the mechanics of induced abortion, a great majority averred to being familiar with the term.

The respondents are divided on their assessment as to how common is the practice in their community. There is a substantial number who profess that induced abortion of unintended pregnancy among adolescents is commonly resorted to. Others deny and explain that perhaps the practice is done in other communities.

Regardless of whether or not a respondent is familiar with induced abortion, their knowledge about it is obtained through hearsay or as experienced by a few. Known ways include ingesting tablets (paracetamol, analgesic, etc.) with heated softdrinks, massaging the lower part of the abdomen in which the uterus is situated by a traditional hilot, ingesting *"cytotec"* (a drug for peptic ulcer), and drinking decoction of tree barks, leaves and roots of

some plants. In the latter approach, commonly mentioned is the panyawan tree (the bark is boiled in water) and mahogany seeds.

Non-Sexual Health Risks and Health-Seeking Behavior

Non-Sexual Risk Behavior. The risk behavior in focus refers to smoking, alcohol intake and prohibited drug use only. In all cases, in spite of ethnicity, gender and urban-rural location, smoking and drinking alcoholic beverages or liquor is, according to respondents, never acceptable to parents for the following reasons: they are not yet of age, it is bad for the health and they do not have any money to finance their vices of smoking or drinking. On exceptional circumstances (birthdays and Christmas) however, a few are allowed to imbibe alcoholic drink.

Drinking among adolescents is also thought by the respondents to be widespread. In fact among the respondents themselves, a good number of females drink or have experienced drinking alcohol while a great number of male respondents do take on alcoholic drink regularly. According to about one-half of those asked, both male and female, they drink because of or to forget their problems. Parents' separation, breaking up from a sweetheart, financial problems in the family, and failing in class are given reasons, to name a few.

> *"Pag depress siguro. They say depress ko bai. Inom ta."* (Maybe when they are depressed. They say *"I'm depressed so let's drink."*)
>
> 17 year old college female
> from an urban area

> *"Para pawala sa problema, aron makalimot."* (To make problems go away and to be able to forget.)
>
> 15 year old high school female
> from a rural area

> *"Bonding sa barkada, ma-close gyud mo. Mabuo ang barkada."* (Its a form of bonding with your peers, to make you closer; to bond with your friends.)
>
> 18 year old Muslim male,
> high school student from a rural area

However, for the Moslems, there are no exceptions since it is an ironclad religious practice never to smoke and drink. Moslem males however, acknowledged that some of them who

smoke and drink do not advertise these habits. They hide from their families' prying eyes and really endeavor to be discreet about it.

> *"Strictly prohibited man na, syempre mag follow mi sa rules sa Muslim. Pero di man ko magpahibalo. Masuko gyud sila og magpahibalo ko."* (It is strictly prohibited for us and we have to follow the rules for a Muslim. But we do it without the elders' knowledge. They will surely get angry if they will know.)
>
> 19 year old Muslim male, high school student
> from a rural area

> *"Masuko. Nakasuway nako anang inom ni uli ko nga hubog. Gi kulata ko."* (They get angry. I already tried going home drunk. I was severely punished, physically.)
>
> 17 year old Muslim male, high school student
> from a rural area

They named plenty of side effects in drinking alcoholic beverages from feeling very weak, getting a hangover, vomiting, indigestion, hepatitis, ulcer to cirrhosis of the liver.

Another high risk behavior currently rampant among adolescents is smoking. Established as a fact, only male respondents smoke. Women respondents denied ever smoking. Very few tried once only. The age old question, "Why do people smoke,?" was also asked of the respondents. Majority for both gender answered that men smoke to be cool, to be part of the in crowd, to chase away any meal aftertastes, to relieve stress.

> *"Pa choy-choy, aron ingnon nga lalake gyud sila."* (To make a statement, in order to be called a real man.)
>
> 17 year old female, high
> school graduate from a rural area

> "It is my favorite: I feel good when I smoke."
>
> 19 year old female, college
> student from an urban area

> *"Pang pawala sa lu-od, kanang paghuman og kaon bitaw."* (In order to take away the aftertaste of food after eating.)
>
> 18 year old male from a
> rural area, out-of-school

They also asserted that smokers probably started smoking because they were curious and the pressure to belong in a group was very intense. Aside from that, smoking eases boredom and it also is a good way to kill time. Now, getting hooked to smoking seems like the next logical step (Box 9).

BOX 9. Reasons Why Adolescents Smoke, Selected Quotes

"Kaniadto, bale testingan lang nako siya. So nagkadugay, lisod naman hawaan. Bisan karon gani, ginapugos nako undangan, lisod na." (It all started as a curiosity, what it tastes like. Later on it became a habit which is hard to drop. I really tried to stop smoking but it is difficult to do so.)

18 year old Muslim male
high school student

"Gawas sa lu-od, kana bitawng wa kay lingaw. Lingkod lingkod lang." (Aside from taking away the aftertaste of food, it is also a remedy for boredom when you don't have anything to do.)

17 year old high school male
from a Lumad community

"Wala lang, pa trip trip sa barkada." (Actually there is nothing to it. It is just a form of relaxation for us, peers.)

16 year old high school male
from a rural community

Respondents indicate that smoking is very common among Lumad and rural males. There are probably many reasons to this. Perhaps the campaign against smoking is better in the city, or perhaps there are many laws and ordinances enacted against smoking in public places in contrast with the towns and municipalities. Urban respondents, male and female are also more articulate when asked if smoking affects one's health. They cited lung cancer, tuberculosis, respiratory problems, quick weight loss, looking older than one's age.

On the issue of drug use, respondents believe that more and more adolescents nowadays have joined the bandwagon. Most female urban respondents did not give estimated figures but some asserted that there is really a high incidence of drug use. Male urban respondents gave an approximate of 60-70% of their friends having tried or are presently using drugs.

"Many. We even have drug lords in school. Then they do business in backyards, in a drinking dive."

18 year old college female from
in urban community

"Mga 6 out of ten siguro sa akong kaila ang ga drugs." (Maybe there are six out of my ten acquaintances who are into drugs.)

16 year old high school male from
a rural community

Half of the Muslim respondents asserted that about 25-50 percent of the adolescents in their area have had experienced or are really taking these drugs. This pronouncement is rather strong and very conflicting with views of the other half of the Muslim respondents.

Most popular drugs are marijuana and methamphetamine hydrochloride more popularly known as *"shabu"* as mentioned by the respondents. Next to rugby (a type of solvent) which is the cheapest, marijuana, being affordable and available in the market is another alternative. Shabu, though regularly circulated, is considered to be a bit steep for adolescents.

"Rugby kay barato man. Ma afford man." (Rugby [solvent] because it is cheap.)

15 year old high school male from
a rural community

"Shabu, kung walay kwarta mapadulong sa rugby." (Shabu but if one don't have money, most likely one will use rugby.)

17 year old Muslim female,
high school student from
an urban community

"Shabu, marijuana, sayon ra paliton." (Shabu and marijuana are easy to obtain.)

18 year old college male from
an urban community

On the other hand, college students revealed that the drug ecstasy, "*e*" for short, is a more expensive drug of choice but there are still plenty of users of this. It is getting more and more evident that adolescents basically know that practicing high risk behaviors of drinking alcohol, smoking and drug use, are basically wrong and against the advice of their parents, school and society. Yet the pull of curiosity, the promise of forgetting one's problems, the

allure and glamour of being cool and be accepted among peers seduce them to at least try, and later live out what started as a vicarious experience of a way of life.

About half mentioned of its ill effects, which are to wit: hallucinations, losing weight, stealing money to sustain their vice, becoming violent and sometimes killing oneself as one is not in the right frame of mind.

Health-Seeking Behavior

There are two main foci under this heading: health information/education and availment of health services. On RH and family planning, questions were asked on where, what, and who the likely sources of information or education were.

The school is one popular source. Reproductive health, family planning and STDs (HIV/AIDS and STDs) are discussed in specific school programs and to some extent are mainstreamed in the discussion of course lessons. Respondents currently in college or in high school affirmed inclusion of these topics albeit the coverage is not as encompassing as they want to be. Teachers in science are noted to be the most mentioned source of information.

The second most popular source is the family – parents and siblings because they have the experience, according to respondents, they have hands-on knowledge on RH and family planning. Moreover, they are the most accessible source if one needs counseling albeit greater degree of confidence is attributed to doctors and health providers when it comes to counseling about specific reproductive illnesses.

Media have also a key role in disseminating information. TV programs and advertisements, radio, internet and even print media have featured, covered and focused on these topics. However, a large number of respondents believe that media sensationalizes facts; news is seldom reliable, reports are biased, and some information is unnecessary but is released anyway to improve the ratings.

Information through tri-media is considered effective but respondents deplore the inadequacy of the information. One cannot question or ask for clarification on the information received. The brevity of the explanation could confuse adolescents and may lead to misinterpretation. A few respondents are not happy with the one-way communication; they find personal and face-to-face interaction to be much more effective.

Health providers in clinics and health centers as well as line agencies are identified to be not only a source of information and education but also for counseling. The specific information they would want in family planning are those that explain the different methods of contraception and their advantages and disadvantages. Sexuality and other related RH topics are also desired.

On HIV/AIDS and STDs, all claim that they still have inadequate knowledge and want to know more especially on the various types of STDs. Specifically, they express the desire to know about prevention, mode of transmission, symptoms, causes and treatment of STDs. Although quite a number of respondents know about HIV/AIDS, many lack knowledge about STDs.

In seeking information on RH, with special emphasis on family planning and STDs, the teenagers covered in the study expect information disseminators to be competent, well-informed and articulate on the subject matter. He or she must exude confidence, be open-minded, animated, patient and approachable, and must possess a sense of humor.

But one quality which is a pervasive desire of most respondents is for an information disseminator to observe the ethical principle of confidentiality. Sharing of experiences among them and between participants and resource persons (in seminar-workshops or any short-term training) must not be divulged or talked about after the session.

Seeking information about RH is not a usual endeavor. In fact, most have not attempted to seek information. For a handful of respondents, the problem is mainly that the persons who are sources of information are not accommodating. Their desire to obtain information is not considered important and they are dismissed by those whom they approach.

Availability of RH Services. An overwhelming majority have never sought RH services. Only one respondent shared her experience when she got pregnant; services availed then were confined to prenatal, birth delivery and post-natal care given by private doctors (Box 10).

Box 10. Views Regarding Reproductive Health Services

"Gitaagan mi ug resita sa tambal. Nipalit ra man akong mama ug tambal. Kulang sila sa gamit, kulang sa tambal." (We were given prescription. My mother had to buy the medication. It lacks equipment and medicine.)

15 year old high school male
from an urban area

"Oo pero kung naay sakit nga dili ma treat sa ilang facilities nga naa dadto, ilang e-advise nga i-adto sa hospital." (Yes, they accommodate but if the ailment cannot be managed at their facility, they advice the patient to go to a hospital.)

16 year old high school female
from an urban area

> *"Na kanang among health center karon kay bati. Kay among health officer karon, pati kanang mga contraceptives, pareha sa depo, ginapamaligya niya. Libre ra man unta na tung una."* (Our health center now is getting worse. Our health personnel sell the contraceptives, depo, that were dispensed free of charge before.)
>
> 19 year old college female
> from an urban area

While never having availed of reproductive services, the respondents nevertheless affirm the availability and adequacy of services. However, a number of them voice out their discontent. Health facilities are lacking, if not inadequate. A few deplore the discrimination in distribution of medicine in favor of the health providers' friends and relatives.

The health centers are rated as accessible and clean. The majority state that the health service providers are friendly and congenial, notably the midwife. A few respondents, however, say that there are also strict and indifferent service providers.

Privacy is compromised in some health centers. Generally the diagnostic room is small and is separated from the waiting room with either a curtain or a thin wall which cannot prevent the conversation from being overheard.

Services in the health center are affordable; in fact these are for free. Whether from hearsay or factual observation, three respondents relate that service providers in their community sell contraceptives which should be given free.

Summary and Conclusion

Adolescents, whether from rural or urban areas, share a great deal of similarities rather than differences in the degree of awareness and knowledge of RH. The level of knowledge horizon is limited, comprising of bits and pieces of information obtained from schools, media, and peer groups. Gaps and misconceptions predominate in their knowledge about RH elements.

Among the RH elements, high awareness is manifested on HIV/AIDS and family planning, although such awareness contains a lot of misconceptions. What is disquieting is the fact that these misconceptions are either on the negative side-effects in the case of family planning and the mode of transmission in the case of HIV/AIDS.

Violence against women and children as an element of RH is experienced by a considerable number of adolescents; some take it as a form of discipline, others recall the events with

pain and bitterness. The data suggest Muslim youth in this study receive more physical abuses compared with the Christian and Lumad respondents.

Consistent with findings from other studies, sex and sexuality are not subjects for open discussion. Early sexual engagement is not acceptable for both adolescents and their parents; this holds true whether one is from a rural or an urban area.

Rural adolescents aver that "going steady" is a common occurrence which implies "permanence "in the relationship. Urban adolescents differ in this belief; for them, steady relationship is transitory, a rite of passage all adolescents must experience.

The risks and consequences of early unintended pregnancy include social, economic, and personal costs, as articulated by both rural and urban adolescents. Induced abortion is a popular expressed option; many profess familiarity with the concept, although the mechanics is unknown to the majority.

Smoking and drinking alcoholic beverages are never acceptable to parents, according to teenagers, but the practice is widespread, nevertheless. Smoking is common among rural males and indigenous respondents compared with their urban counterparts. Use of prohibited drugs is also widespread, regardless of the place, whether urban or rural.

Sources of RH information and education are similar for both rural and urban youth except that the level of use varies. Rural adolescents tend to place rely more on health centers and schools rather than on the media. They express satisfaction with what they perceive to be RH services in spite of the fact that a great majority profess not to have ever sought RH services.

Notes

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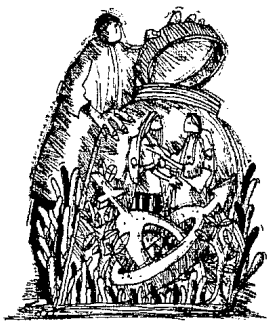

Promoting the Use of Family Planning Methods Through Radio: A Philippine Experience*

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Abstract

In the Philippines where the annual population growth rate is high, the promotion of modern family planning methods through radio constitutes one major national activity. Does the radio, having the theoretical and potential power to reach massive numbers of people, really effect the changes as so desired by the campaigns? In other words, is it really an effective medium? What are the measures of effectiveness? In this report, the foregoing questions are answered using data from a radio campaign effort in the Philippines. Specific experiences from other countries are also discussed in an effort to provide a broad context in which the Philippine data may be better assessed.

Keywords: Philippines, radio campaign, family planning, modern family planning methods

I. Background

In the Philippines, where the annual population growth rate is high, at 2.2% (PRB, 2001), which is consequently viewed as a figure requiring control and management, the promotion of modern family planning methods constitutes one major national activity. The country's current contraceptive prevalence rate is 49.5%, and while reflecting an uptrend over 30 years (NSO, 2001), it remains lower than the rate of Indonesia (57%), Vietnam (75%) and Thailand

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(72%), all of which exhibit lower population growth rates than the Philippines (PRB, 2001). The stark contrast of the Philippine figures from those revealed for the aforementioned countries, presses the need for the country to address its burgeoning population - amidst glaring social, economic and political problems - through service delivery, advocacy and promotion. Promotional activities come in differing forms (testimonies, drama, information bits or lectures), and of varying focus and persuasions, the contents of which typically highlight the family planning methods available, procedures involved, and positive consequences. Government personnel and volunteers in health centers and allied offices, and public officials throughout the archipelago have served as interpersonal channels for family planning messages and services. The broadcast and print media, reaching national and sub-national populations, have also stood for decades as channels to entrench family planning practice among the Filipinos. Unless a campaign has committed funds for media releases, the government and non-government organizations negotiate for their *pro bono* publication, to which broadcast and publishing companies accede – under terms – to underscore their commitment to social development and public service.

Among the employed and alternative media channels, the radio has been used as a popular medium for promoting family planning method use. Its household ownership is broad, and higher than television (85% versus 16.1%) (Association of Accredited Advertising Agencies of the Philippines, 2002) and although its use of one or more hours a day trails behind television, its listenership is comparatively high (59% versus 43%) (SWS, 2001). Over the week, radio listenership is highest from 6am to 12pm (27.0%), sharply declining at 12pm till 6pm (18.1%), and much more from 6 to 9pm (8.9%) (Radio Research Council, 2000). As a source of family planning information among married women, the radio – albeit second to television (82 versus 48%) – also remains a major purveyor (Kincaid, 2001). The relatively inexpensive production cost that radio campaigns entail, and the fact that the country has 643 commercial radio stations (Association of Accredited Advertising Agencies of the Philippines, 2002) even further make the medium a clear and viable option for public health campaigns.

Does the radio – having the theoretical and potential power to reach massive numbers of people – really effect the changes as so desired by the campaigns? In other words, is it really an effective medium? What are the measures of effectiveness? In responding to these queries, the report cites evidence from other developing countries. The Philippines has scant published articles on the matter, and despite some campaigns producing impact reports, their general circulation and sharing are, oftentimes, restricted. Findings from other countries are relevant for the present discussion because these help exhibit, in empirical sense, the radio's potent role in and the experiences associated with family planning or reproductive health promotion. The impetus for the use of this medium (that radio ownership is mass-based, and radio broadcast is inexpensive) is also similar between the Philippines and other restructuring countries, thus furthering the applicability of foreign evidence to the Philippine setting. Regarding radio

ownership, it stands at a comparable rate (75.4%) in Tanzania (Jato et. al., 1999) or nearing universality (92%) in a Caribbean island-nation of St. Lucia (92%) (Vaughan, Regis and Catherine (2000). For a specific population sub-group, access to a working radio is broad for the urban (94%) and rural youth (87%) of Zimbabwe (Kim et. al., 2001).

A. Specific Country Experiences

The entertainment-education radio soap drama on family planning and HIV prevention in St. Lucia, Caribbean addressed 37 specific knowledge, attitudes and behavior issues, including the use of contraceptives (Vaughan, Regis and Catherine, 2000). It ran for around seven months, with more than 400 episodes broadcast from 5:15-5:30 in the afternoon, three times weekly. It was guided by Bandura's social cognitive theory, which posits that individuals learn new behaviors by observing, imitating or modelling the behavior of others, who serve as role models. Another principle that underlied the project was that individuals may increase their self-efficacy, or sense of their ability to carry out a task, by seeing individuals similar to themselves perform the task successfully.

An independent quota sample survey of several hundreds of respondents (pretest=753 and posttest=1,238) has measured the impact of the campaign. Foremost, listenership to the soap opera was high: it was the second most popular program in the radio station where it was aired, and the fourth most popular in the country. The detailed results follow:

1. Knowledge wise, regular listeners were highly cognizant of the educational content of the program. Between 24 and 60% cited particular content issues such as HIV and AIDS and drug abuse, but 16% reported learning nothing from the program.
2. Attitude change – across several indicators – was minimal, with not more than 10-percentage-points positive change. For example, in some attitudinal statements, the percentages believing that 'men can have other sexual partners after marriage' decreased from 27 to 14%; or those believing that 'wife needs husband's consent to work' somewhat shrunk from 33 to 29%.
3. The behavioral impact of the soap opera was absent or modest. For example, the percentages of respondents talking to partner, a friend or service provider about family planning before and after the program dipped. There were slight increases in the percentages of respondents using modern methods (53 to 54%) and condoms (21 to 24%).
4. In summary, the program has its greatest impact on knowledge, less impact on attitude change and even less impact on behavior change.

Increasing spousal communication, and contraceptive knowledge and use was the goal of Tanzania's three-year-family planning communication project (Jato et.al., 1999). Contraceptive prevalence rate in the country was low (10%) and modern method prevalence

was 6%, justifying the need to advance the above-mentioned areas. Radio spots and a radio serial drama formed part of the multimedia campaign. The theoretical principles of the Tanzanian project were method-based, that is, it emphasized the health benefits and effectiveness of modern contraceptives to encourage their use. It also regarded the use of methods as a gradual and complex process. The post-campaign assessment of the more than 4,000 women aged 15-49 points out that about half (48.9%) heard the radio spots, and that 23.4% listened to the radio drama. The article has not segregated the specific effects of radio materials on respondents' knowledge and use of contraceptives, thus the following results represent the combined effects of seven media sources:

1. The percentage of women who said that they had their partner's approval to practice family planning was 72.0%.
2. The percentage of women who discussed family planning with their partner was 75.9%.
3. Most of the women (79.3) knew of at least one family planning method. Nearly all of them received campaign messages.
4. Current use of any family planning method was 17.6%: more artificial than traditional (11.2 versus 6.4%).
5. Current contraceptive use was higher among women with four or more media message exposures than among those with fewer exposures.
6. Current use of modern methods was far greater among women who recalled family planning messages than among those who did not (18 versus 3%).
7. In summary, the intervention helped create conditions in which couples had discussed and concurred to adopt family planning. Knowledge improvement was the major achievement of the campaign, with modest impact on contraceptive use.

Nepal's radio drama serial, supplemented with radio spots and other non-radio-based activities, also typifies the usual family planning promotion, except that it effected the use of methods through changes in inter-spousal communication (Sharan and Valente, 2002). Evidence has highlighted the close linkage between the two variables, and the project looked at it as the first step in a rational fertility decision making process. With a contraceptive prevalence of just 29%, the pressure to control the population growth rate of 2.4% seemed necessary, but the channel through which to realize this was for couples to communicate and decide about family planning. The national airing of the weekly drama series began in 1995 and their impact was determined through a three-wave population-based panel and impact surveys in 1994 for the pre-test, and in 1997 and 1999 for the post-tests. Female respondents totalled more than 3,000. Highlights of assessment results:

1. Facets of spousal communication – already occurring at high levels before the campaign – had improved due to the campaign. The report of spousal approval of family

planning had increased (80.9% to 82.4% to 86.9%) and so was the report of knowledge of the spouse's desired family size (83.1% to 91.9% to 96.3%).

2. The percentages of those who adopted family planning methods were not greatly different in situations where the husband and the wife individually or jointly made the decision. The range of percentage-difference was eight to 10. Despite this, it was learned that couples who communicate about family planning tend to adopt a contraceptive method. Those who do not communicate may begin doing so because of exposure to the campaign.
3. The campaign just modestly improved the number of users over three rounds of surveys by 3 to 7 percentage-points. For instance, in the situation where the husband decided, the percentage of users before the campaign was 55% (1994), and during the campaign, 62% (1997) and 58% (1999). In the situation where the wife made the decision, the figures were 45%, 55% and 60%. In that circumstance where both decided, the numbers were 47%, 53% and 66%.
4. In summary, the campaign had helped increase spousal communication, but its impact on resulting behavior of family planning use, against those situations where inter-spousal communication did or did not occur, was minimal.

The evidence from the experience of the foregoing countries is discussed later in the context of the results of a radio campaign in the Philippines. At this point, it is first important to present details about that campaign.

II. The ReachOut Campaign: Aim, Design and Impact Assessment

ReachOut Reproductive Health Foundation or ReachOut is a non-stock, non-profit, non-sectarian, and a leading non-government organization based in Manila, the Philippines. Its mission is to improve the quality of life of the underserved, marginalized and vulnerable populations by providing non-judgmental and non-discriminatory reproductive health education, services and empowerment in a responsive and urgent manner.

For three years (2000-2002), with funding from the Packard Foundation, ReachOut implemented a national radio campaign using a series of public service announcements (PSAs). The campaign promoted the use of modern methods of contraception in the Philippines, particularly in the National Capital Region, Nueva Vizcaya, Baguio, Iloilo, Cebu and Davao. These sites were selected because their family planning services that listeners of the radio ad campaigns were expected to patronize, are well established. ReachOut developed, produced and aired 36 PSAs in five languages (Tagalog, Cebuano, Ilongo,

Ilocano and English). The PSA contents were intended to educate men and women of reproductive ages (15-44) about the various modern contraceptives; relevant myths and misconceptions; and responsible sexual behavior. The focus on these subject areas was inspired by some principles on behavioral adoption, stating that these are critical to forming conditions that may lead to method use. For instance, in Fishbein's theory of reasoned action (1980), in which attitudes are part and parcel of a person's intention to perform a behavior, having or not having knowledge and rumors is important. In the decision theory, having or not having knowledge or myths may discourage the movement of a person's decision through seven steps such as problem and goal identification, and information search (Jaccard, Litardo and Wan, 1999).

Besides these contents, the project – acknowledging that the use of the methods is influenced by the presence or absence of models, as Bandura's social cognitive theory stresses – had utilized movie and radio personalities, and satisfied family planning method users as campaign endorsers. Before its broadcast, each PSA underwent pre-testing through a focus group discussion with men and women. The first PSA release was in 2000 March. In a month-duration, the airing of every PSA was two times daily on two primetime slots (11am to 1pm, and 5pm to 8pm). Over the three-year campaign period, ReachOut aired approximately 104,400 radio spots through 145 radio stations, representing a little more than one fourth of the total commercial radio stations in the country (Association of Accredited Advertising Agencies, 2002). The cash media value of these spots was more than 200 million pesos (US$5.22 million). During the three-year period, no other mass-based campaign was undertaken apart from ReachOut's effort.

The impact of the PSAs was systematically determined. ReachOut commissioned three question items for inclusion in the regular Social Weather Stations (SWS) nationally representative sample survey of 1,200 Filipino adults. The three items dwelt on

- Respondents' awareness of any radio advertisement on family planning,
- Respondents' recall of the messages of the radio advertisement, and
- Actions that respondents took after hearing the advertisement.

In the campaign's three-year period, the three items were included in eight SWS surveys, each with 1,200 respondents, between the period 2000 and 2002. The specific timing schedules of the surveys were 2000 March, 2000 September, 2000 December, 2001 July, 2001 September, 2001 November, 2002 March, and 2002 May. The 2000 March round served as the benchmark survey and the rest (seven survey rounds) as campaign assessments. The SWS survey data must be seen in light of four caveats. First, across its eight survey rounds, the randomly selected geographic sites and respondents differed from one round to another: respondents included in one survey were not necessarily included in subsequent interview

rounds. Second, the SWS surveys aggregated their data based on three broad geographic categories (Luzon, Visayas, Mindanao and NCR), thus precluding the analysis of campaign impact on the intended target areas. Third, the question on awareness - 'Have you ever heard of any family planning advertisement on radio?' – was asked without a reference period. Whether the hearing of an ad took place within the last three or six months was left unspecified. Fourth, the surveys did not include a question in which respondents were queried whether or not the ad they heard was ReachOut's or not. In this case, it was difficult to attribute their awareness exclusively to the ReachOut campaign.

The SWS performed a frequency count of respondents' replies to the four commissioned items in the eight survey rounds, and cross-tabulated these responses with socio-demographic characteristics, as age groups (18-44 for women and 18-60 for men), economic class, gender, religious affiliation, civil status and educational attainment. An independent research consultant further examined the results. The results of the crosstabulation analyses disclose that most variables, except for educational attainment, were insignificantly related with awarenss of radio campaign. Interviews with Jomar Fleras, Chief Executive Officer of ReachOut and Campaign Coordinator, were also conducted from which additional data were obtained. Core findings from these research activities are included in the ensuing discussion to answer vital questions insofar as the ReachOut campaign is concerned: Was radio an effective medium, and if so, what was the scope and extent of effectiveness? What can be done to improve future campaigns on family planning?

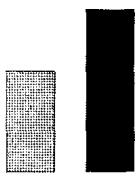
III. Campaign Outcomes

A. Impact on advertisement and message awareness

Extent of awareness of a radio ad on family planning remained steady throughout the campaign period, between 39% and 63%.

Prior to the campaign, the percentage of those surveyed expressing awareness of any radio announcement on family planning was 50%. The results from the seven rounds of survey - during the intervention period - reveal that the levels of awareness remained mostly stable (between 39% and 63%). Generally, the figures were proximate to, but lower of not more than 11 percentage-points than the benchmark figure of 50%. Only in two of the seven surveys in which the extent of awareness was higher than the pre-intervention awareness level, at 55%-63% versus 50%.

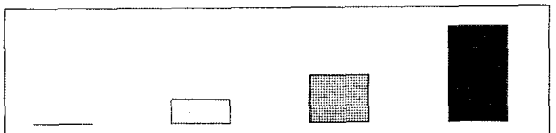
Between 67% and 83% of the messages recalled were related with contraceptives.



Across the eight waves of the survey, the tendency to be aware or unaware of a radio ad –

across several survey rounds – was strongly, consistently and statistically related with a person's education. The highly educated were more aware than those with low education. Other characteristics exhibited inconsistent bearing on awareness based on several survey results.

Among those who claimed awareness, the surveys asked them of the specific messages that they recalled from their radio ad exposure. Across the entire survey periods (before and during the campaign), the messages recalled by the majorities of respondents (between 67% and 83% of them) were related with contraceptives. Other fewer respondents remembered the messages as about 'health centers', and 'population growth and control'. Between 1% and 10% of respondents did not know or could not recall any message. The contraceptive-related messages, as respondents detailed, had either conveyed messages about 'contraceptives as promotive of family planning' or had mentioned specific methods, the most commonly cited methods of which were the pill and condom.



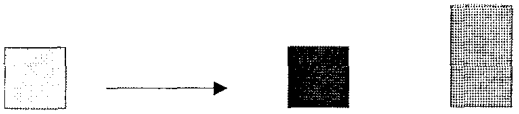
From the pre-intervention figure of zero, the number of those recalling messages related with the pill jumped to 4% then to 13%, eventually reaching between 20 and 25%.

The recall of specific methods such as the pill and condom became evident and was greater after the launch of the campaign. Pre-intervention result indicates that no one heard of a pill-related message. After seven months of the campaign, however, the figure rose from zero to 4%. With the movement of the campaign through the years, the numbers further increased to 13%, reaching 20% through 25%. In the same token, the number of respondents who remembered the message as about the condom was 6% during the pre-intervention phase. The numbers decreased to 2%-5% during the first 10 months of the campaign, but the rest of the campaign period witnessed the figures rising, between 11% and 24%.

B. Impact on family planning use, and other behaviors

The numbers of respondents aware of a radio family planning advertisement – roughly about 40% to two-thirds of the 1,200 sample for every survey – were queried about the actions they took after hearing the ad. Of those admitting awareness, just around 30% reported having taken an action after their exposure to the ad; others did not know, refused to answer and did not do anything.

The ad-induced use of family planning methods improved before and during the campaign.



8.4% *8.8% through 15.5%*

Most of the courses of action that respondents performed, stemming from their ad exposure, related with contraceptive use. In the pre-intervention period, the percentage reporting having used a family planning method was 8.4. Data from subsequent assessments indicate that the percentages of method users, among the aware respondents, were higher - ranging from 8.8% to 15.5% - except in one survey, where the figure was lower (6.4%). Either before or during the campaign, the most used methods were the pill and condom, and the less used included ligation, rhythm, injectables, intra-uterine device, and vasectomy.

Other types of action that fewer numbers of respondents had adopted included 1) having further discerned about family planning; 2) having advised or informed someone of the methods; and 3) having sought further advice and assistance. There was hardly any movement in the percentages of respondents who had discerned about the issue, or had informed others of the methods before and during the intervention: the figures remained more or less the same across the survey rounds, at around a low of 1% to 6%. With respect to seeking advice and assistance, however, the scenario presents a comparative difference. Pre-intervention figure discloses that only 1% of the respondents had accessed advice and assistance on family planning. In five of the seven subsequent survey rounds, however, the numbers soared to and were sustained between 8%-10%. In two rounds where results were the opposite, the figures stood at 1% or lower.

IV. Discussion, Implications and Recommendations

ReachOut's three-year radio campaign represents a non-government organization's support to the national government's program of stemming the burgeoning Filipino population, a factor that has placed the Philippines as one of the 15 heavily populated countries in the world (PRB, 2000). The promotion of modern contraceptives serves as the strategy through which to achieve the goal of depressing the high population growth rate. The current contraceptive prevalence rate is just too weak to fast track the realization of the goal. Broadening it, such that more and more Filipino men and women adopt family planning thereby upgrading the prevalence figure, is deemed the solution. In the experience of Thailand, one success story in family planning implementation in the region, the rate of its natural population increase of 0.8% is brought about by its contraceptive prevalence rate of 72% (PRB, 2001).

The use of radio in ReachOut's intervention was anchored on the fact that the ownership of a radio set among the Filipinos is truly broad and mass-based, as is the case in other developing countries as the Caribbean, Tanzania and Zimbabwe. Set ownership is, distinctly, not an assurance that its users would be exposed to the radio campaign, even if such campaign is aired nationally over a hundred radio stations, each day and on prime time slots. The Philippine experience illustrates this point: indeed, despite an 80% ownership, exposure to a radio ad on family planning reached somewhere only between 39 and 63% as the SWS

survey after survey disclosed. By no means that the non-universal impact of campaign awareness is unique to the Philippines. In the first section of this report, it was discussed that despite Tanzania's 75.4% radio ownership, the percentage who heard the radio spots was only 48.9%. It is also worth noting that another effort, a multi-media Philippine campaign on a government program called Sentrong Sigla, the percentage of respondents claiming awareness of the program was only 18% (SWS, 2000). The gap between radio ownership and awareness may be due to the influence of a competing broadcast channel, the television. As mentioned, Filipinos tend to watch television more frequently than to listen to radio, and with the best television shows on evening prime time schedules (currently the soap opera), the former could have been preferred over the radio. Data on radio exposure supports that, indeed, people's radio listening hours are lowest in evening prime time. The level of radio awareness could have been affected, also, by people's engagement in economic activities, an imperative in this time of economic crisis, which then took them away from radio listening. Which implies that the use of radio as a promotional medium must be carefully situated in the contexts of other competing mass media and activities. The results on radio ad awareness – where the figures were relatively stable over time - could have been influenced by the fact that the surveys, for years, did not focus on the same respondents from the same geographic sites. Due to the non-panel design of the surveys, determining the campaign's cumulative (rising or decreasing effect) on awareness, and controlling for fluctuations in the ratings of radio programs, and listening habits of the populations were not possible.

Despite this, the SWS survey data are quite meaningful and strong in one respect. More than anything else, the evidence highlights that everywhere throughout the Philippines, in various time periods between 2000 and 2002, about half of the Filipino men and women of reproductive ages, were found to be aware of a radio-based family planning campaign. Whether this campaign was Reachout's or someone else's was not indicated in the surveys, but even then, the contribution of the ReachOut intervention to carving this extent of awareness is difficult to discount. The contents of that awareness (as evinced by the respondents' reports of the specific messages they recalled from the advertisements) matched those contained in the PSA messages. In other words, the congruence – that these predominantly were about contraceptives – was apparent. In short, ReachOut's campaign succeeded in implanting into the minds of adult men and women ideas about contraceptives - most specifically, messages about the pill and condom. However, messages of the PSAs on other methods – ligation, injectables, vasectomy and intra-uterine device – had flat effects: their recall was too confined to negligible numbers of respondents. Even the survey data collected on the month or proximate to the month of the radio broadcast of the PSAs on these less recalled methods unfold that truly, their impact was too minimal. This indicates that the message contents of the PSAs may require unique and innovative approaches specific to the methods being promoted. Just informing the target audience of the methods for their access at the public

health centers may not anymore be effective. It has been proven that lack of knowledge constitutes a mere 2.3% of all the reasons for non-contraceptive use. The health consequences and side effects of method use are far more relevant, and may be the focus of the PSAs (NSO, 2001).

The campaign, making an impact on awareness, had also brought positive, albeit modest outcomes on family planning use among the survey respondents. From pre-campaign figures of around 8%, the prevalence rates during the campaign had several percentage-point rise, improving the rates between 10% and 15%. If compared to the experiences of other developing countries, the ReachOut campaign-induced prevalence rates are better than the percentage-points increase of Caribbean's 1-3%, but lower than Tanzania's 7%. The higher prevalence rate in the Tanzanian campaign is to be expected, considering that it employed seven media channels against the lone radio channel of ReachOut and the Caribbean. The Tanzanian result suggests that a multi than a single-media campaign is a better and more effective option. Insofar as method use due to the radio campaign is concerned, the behavioral impact of the Philippine campaign is considerable and acceptable. The popularity of the pill and condom as the most used methods among the Filipino adults is not surprising, as these were also the methods most of them had recalled. In another government's communication campaign in 2000 (NFO Trends, 2001), and based on the 2001 Family Planning Survey (NSO, 2001), the pill was also the most utilized among women users. Beyond method use, the ReachOut campaign was also successful in effecting a critical behavioral outcome: the seeking of advice and assistance on family planning, which from the pre-campaign to the campaign period, the rise in the numbers of individuals who took this action, climbed by 7 to 9 percentage-points. The PSAs had influenced only very insignicant numbers of individuals to discern more about, and to be the sources of advice and information on family planning. That the campaign had, virtually, effected little change in these respects, calls for the future crafting of innovative approaches to bring these behaviors into fruition. In decision theories, discernment and information sharing are foundations on which decisions on major life concerns as method use and family planning are based (Jaccard, Litardo and Wan, 1999). Moreover, if people share information about family planning, it means that they already perceive it as a social norm. The normative presence of the practice also places pressure on people to conform to the norm.

Clearly, the impact of the ReachOut campaign, that likewise characterizes the campaign experiences of the three countries featured in early section, was greatly evident in awareness raising, but modest in behavior change. The yawning gap between awareness and behavior, which also stresses the large percentage of those with awareness who did not do anything against those who did (70% versus 30%) pins down one realistic fact. That promoting change in people, regardless of media type, is complex and gradual, and the provision of awareness

and even knowledge, while necessary, is insufficient to usher in needed change. Prevailing theories on social behavioral analysis, as used in the experiences of the Philippines and other countries suggest that change in the context of Fishbein's theory of reasoned action, or as a decision process, may not be possible after exposure to a radio ad. In the case of Tanzania, few women adopted contraception immediately upon exposure to the intervention. Perhaps those who performed an action (sought advice and assistance) could have been those already in the advanced stages of the decision making process. Great proportions among the individuals surveyed – in the Philippines and elsewhere – had exhibited, however, a degree of obstinacy. In the additional data that the SWS had gathered for the ReachOut campaign, it was learned that from its three survey rounds in 2002, the percentages of respondents bearing no intention to use, was 62% to 70%. This obstinate and seemingly impenetrable disposition of the majority could not have been due to the Filipinos' disapproval of family planning; approval is, on the contrary, high, at around 90% (NFO Trends, 2001). Rather, it could be due to concerns about the health aspects and side effects of method use, or on factors related to conception (NSO, 2001). While the scenario displays a large proportion unlikely to embrace family planning, a proportion (15%-16%) – also based on the additional SWS survey data – had expressed an intention to use a method. More than their concern for non-users, future campaign efforts must direct their energies at these individuals, and effect positive movement among them and on the processes therein, to eventually bring about method adoption.

In light of the foregoing results, what specific courses of action may be taken to further enhance prospective campaigns and their impact? The suggestions are subsumed under four categories: contents, channels, target sites and participants, and research and evaluation.

A. General contents

1. As has been the practice, the focus and contents of campaign ads must be guided, continually, by principles governing behavior change. As change is, oftentimes, taken as a process, the contents of the campaign materials must be tailored based on the progression of the campaign. In short, the contents should not remain stationary and focus on knowledge items alone throughout the intervention. Once knowledge has been established, movement towards attitudinal modifications and other areas must be made.
2. Future campaigns must already minimize using contents that purely tell the target audience about the available methods on family planning. Attitudes – encompassing perceptions and beliefs – on other vital and largely unaddressed issues such as health concerns and side effects of method use must be provided substantial attention, as method adoption is also contingent on changes in this regard.

3. The treatment of the modern family planning methods in campaign materials while maybe generic at times, must also be method-specific at other times, as health concerns vary from method to method. Other less popular methods besides the pill and condom must be promoted, but this approach must be carefully executed to avoid creating a dampening effect on the continued use of the two popular methods mentioned.
4. Beyond the modification of human attitudes is the necessity of enabling individuals to translate their intention of using family planning into action. Varying scenarios on how individuals with propensities for adoption begin seeking assistance from friends, phone and clinic services and then resulting in their initial use must be portrayed or conveyed. For example, one potential storyline may show a woman or a couple articulating an intention to practice family planning but does not know how to translate this into action. The material must then show – step by step and effectively – the processes through which individuals may realize this intention.
5. The use of models and satisfied users is important and must be retained. To maximize the effect of this strategy based upon the social learning theory, a range and variety of models and users to reach a wider part of the population in terms of socio-economic classes must be utilized. Satisfied users must articulate quite clearly their experiences regarding side effects (or lack thereof) and other health concern.
6. To help create the social normativeness of family planning and bring about social pressure on non-family planning users, other strategies apart from stand-alone campaign materials must be considered. For instance, integrating direct and subtle messages in broadcast commercial dramas may be opted. A statement or two on family planning uttered by a lead performer, though subtle, may send a powerful message.

B. Channels

1. Radio must be used in tandem with other media and interpersonal channels to ensure that all members of the target population are reached and captive.
2. The primetime placement of radio ads is not the only opportunity to capture the target audience. Radio listening tends to be highest in the morning and the campaign must use this time maximally. Spreading the radio spots across other broadcast times, and the use of other media or television, may also help broaden the campaign reach.
3. Regardless of media type, the programs in which to air the campaign materials must be carefully selected, bearing in mind the need to capture differing categories of audiences. Soap opera, currently a fad in the country, and sports programs may be appropriate to particular groups of people, while news and current events may be attuned to other groups.

4. Recognizing that media types have unique effects according to types of messages and behavioral outcomes, and also to optimize effects, the aims and contents of the broadcast campaign materials must be well synchronized with selected media and programs.

C. Target sites and participants

1. The campaign must define the target sites according to some meaningful criteria, for example, level of contraceptive prevalence; availability of family planning services and outlets; proportion of residents who are married; and prevailing attitudes and intentions. Based on results, it must adopt segmentation of the sites.
2. The target population must be understood with respect to contraceptive prevalence, knowledge, attitudes and mass media behaviors, and other factors and conditions that may be useful for the campaign. As with target sites, the target audience has to be segmented as well.
3. The campaign must include sites and groups in which the campaign is likely to create an impact. The selections must be matched with plans regarding contents and channels.
4. The campaign must make sure that the public health services from which family planning services will be accessed are prepared to deal with all the concerns and needs of the individual clients.

D. Research and evaluation

1. All research activities must cover the target sites and the target populations across the entire campaign period.
2. Prior to the campaign period, there must be a benchmark study to determine contraceptive knowledge, attitudes and use; and patterns of radio listening and television watching, among others. If data on these items are already available, then the campaign can make use of them. In general, data from the pre-campaign research must be used as inputs to design and develop the campaign goals, site and audience segmentation, contents, materials and channels.
3. Through the implementation of the campaign, there must be formative evaluation. This activity will assess periodically if the aims are being met or not met. If the target aims are unfulfilled, the activity will also help specify the explanations and reasons, to subsequently guide the revision of campaign design. Poor or minimal desired results during the early part of the campaign would provide ideas as to what and how changes may be made to effect the desired changes in the subsequent parts of the campaign.
4. In process and formative and other impact assessment activities of the campaign,

three urgent matters must be addressed. First, the time frame of a common assessment question, 'Have you heard about a radio campaign on family planning?', must be defined: is it the past 12 or six months that a person has heard of an ad? Thus, the revised item will read 'Have you heard about a radio campaign on family planning in the past six months?' Two, the assessment must be able to attribute the ad as that of the campaign producer's and not someone else's. In this case, it is necessary to ask participants if the ad they heard was that of ReachOut or of other entity. Three, the assessment must query participants of the stations from which they heard or watched the ad. All the three suggested questions are meant to establish, in very clear terms, the validity of the participants' reports.

5. Public health services must be involved in research activities particularly with reference to determining provision problems, client intake and contraceptive inquiries and prevalence.

Note

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Young Filipino Men's Condom Use During Their Most Recent Heterosexual Sex*

Eric Julian D. Manalastas[1]

Abstract

Are young Filipino male adults using protection during heterosexual sex? Using perspectives from social psychology and data from the 2003 National Demographic and Health Survey (NDHS), the paper explores condom use as sexual health behavior among young Filipino men during their most recent heterosexual sexual episode. Results based on a national probability sample of N = 594 sexually active Filipino men aged 15 to 24 indicate that overall condom use was low (13.5%). Logistic regression analysis suggests that only two factors significantly predict condom use: the type of sexual partner and whether a condom was used the first time a man had heterosexual sex. Condom use is not related to attitudes toward condoms, to cognitive factors like knowledge of condom sources or protection beliefs, or to demographic variables. Subjective reasons for condom use are also presented, as well as implications for sexual health interventions.

Keywords: condom use, young Filipino men, heterosexual sex, contextualized behavior

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I. Introduction

The most high-risk sexual activity in the Philippines, at least in terms of HIV transmission, is having unprotected heterosexual sex. According to the National HIV Sentinel Surveillance System of the Department of Health, of the N = 2,410 reported cases of HIV infection in the Philippines from January 1984 to December 2005, the most common mode of HIV transmission has been sexual contact between a man and a woman (National Epidemiology Center, 2005). This sexual activity comprises 62% (N = 1,505) of total cases in the HIV/AIDS Registry. Heterosexual sex accounts for more reported cases of HIV transmission among Filipinos than all other modes – including gay sex, sharing of infected needles, and perinatal exposure – combined.

While the surest way to avoid the sexual transmission of HIV is to abstain from sex altogether, consistent use of latex condoms during sexual intercourse has been shown to provide a high degree of protection against the heterosexual transmission of HIV (Centers for Disease Control and Prevention, 2004). What is less clear, however, is the extent to which sexually active individuals, for instance, Filipinos who engage in heterosexual sex, actually do protect themselves by using condoms and if condom use (or non-use) can be associated with certain social factors.

This paper focuses on these questions by combining a social psychological perspective with a secondary analysis of Philippine demographic data on heterosexual condom use among young Filipino men aged 15 to 24. The paper aims to show how an exploration of population-level data (as collected by demographers) can be informed by conceptual and theoretical perspectives (as developed by social psychologists) in order to address a modern sexual health concern.

Condom Use as Sexual Health Behavior

Sexuality is a fundamental domain of an individual's overall well-being, as well as an important area of study of psychologists, demographers, and other social scientists interested in health promotion (Marks et al., 2005). Sexual behavior, for example, can involve a number of psychological consequences for individuals, such as changes in identity, self-esteem, and close relationship quality. Sexual behavior, particularly heterosexual sex leading to pregnancy, is also the fundamental basis for fertility and population growth. Because sexuality pervades much of social and psychological life, sexual health and its promotion have been a key intersection of interventions as well as social scientific research.

An individual's actions that promote her or his sexual well-being are called sexual health behaviors. These behaviors include practices such as regular self-checks (e.g., breast self-exams for women and testicular self-exams for men), help-seeking for sexual health matters

(e.g., going to a medical health practitioner for symptoms of a sexually transmitted infection), being tested for HIV, and the use of protection during interpersonal sex.

For sexually active individuals, the use of latex condoms during sex is one of the most basic ways to ensure such protection. Condom use is a significant sexual health behavior for at least three reasons. First, according to epidemiological research, correct and consistent condom use is highly effective in preventing the heterosexual transmission of HIV. For example, in their analysis of HIV seroconversion studies, Pinkerton and Abramson (1997) found that condoms are at least 90% to 95% effective for HIV prophylaxis when used consistently. That is, consistent condom users are 10 to 20 times less likely to become infected when exposed to HIV compared to inconsistent or non-users. In addition, based on model-based estimation techniques, condoms decrease the single-contact probability of male-to-female transmission of HIV by approximately 95%, suggesting that though imperfect, condom use during heterosexual sex offers a considerable degree of protection against HIV. In fact, condom use has been shown to be a more effective strategy in preventing HIV infection than reduction in the number of sexual partners (Reiss and Leik, 1989).

Apart from preventing the heterosexual transmission of HIV, condom use has also been demonstrated to effectively protect against a spectrum of other sexually transmitted diseases such as gonorrhea, chlamydia, and herpes simplex infection (Centers for Disease Control and Prevention, 2004).

Finally, condom use during heterosexual sex has been demonstrated as an effective means of avoiding unintended pregnancy. For example, in a prospective cohort study that followed $n = 234$ sexually active women for one menstrual cycle, the contraceptive effectiveness of condoms was 100%, that is, the one-cycle pregnancy rate was 0% (95% CI = 0% - 2%), as opposed to the expected 32-36 pregnancies if no condoms had been used (Steiner, Taylor, Feldblum and Wheeless, 2000). In another, more recent study that combined two randomized controlled trials of $n = 819$ heterosexual couples who used latex condoms exclusively for up to six menstrual cycles (Walsh et al., 2004), the six-cycle pregnancy rate was 1.0% (95% CI = 0.0% - 2.1%), demonstrating that in addition to protection against disease, condoms do provide high contraceptive efficacy.

Correlates of Heterosexual Condom Use

As it became clear that simply providing individuals with information about sexual health and HIV/AIDS was not enough to lead to protective behaviors, social psychologists began to develop and test a number of theoretical models to account for heterosexual condom use as a sexual health behavior. These models, which include the health belief model, protection-motivation theory, the theory of reasoned action, and the theory of planned behavior, all

work within a basic social cognition framework that emphasizes how individuals' perceptions, beliefs, and other cognitive processes like decision-making and threat-appraisal lead to behaviors such as sexual risk-taking and condom use (Marks et al., 2005).

In their meta-analysis of 121 empirical studies that made use of these different models, Sheeran, Abraham, and Orbell (1999) investigated the relationship between 44 psychosocial variables and self-reported heterosexual condom use as HIV-preventive behavior. Condom use during heterosexual sex was hypothesized to be a function of a number of factors which may be organized along five clusters:

(1) **Labeling variables,** which involve the awareness of the threat of HIV/AIDS and the perception that one's sexual behavior could put one at risk for HIV infection (including variables like knowledge of HIV/AIDS, worry about HIV/AIDS, number of sexual partners, intercourse frequency, and cues to action such as being taught about HIV/AIDS at school, knowing someone HIV-positive, and having had an HIV antibodies test),

(2) **Commitment variable**s, which involve the decision-making process that culminates in a commitment to use a condom during sex (including variables like perceived efficacy of condom use, attitudes toward condoms, previous condom use, and intentions to use condoms in the future),

(3) **Enactment variables**, which include implementation behaviors (such as carrying a condom around and condom availability) and interpersonal factors (such as relationship status and communication about condoms),

(4) **Demographic variables**, such as gender, age, socioeconomic status, and education,

(5) **Personality variables**, such as individual differences in impulsivity, sensation-seeking, and erotophobia-erotophilia.

Of the 44 variables examined, only nine had medium to strong effect sizes, i.e., had sample-weighted average correlations of at least $r_+ = 0.30$. All nine factors came from the commitment and enactment clusters: (1) attitudes toward condoms, (2) social norms regarding condom use, (3) intentions to use condoms, (4) condom use self-efficacy, (5) motivation to use condoms as contraception, (6) carrying a condom, (7) condom availability, (8) communication about condoms with partners, and (9) previous condom use. Knowledge of HIV/AIDS had a significant but extremely small correlation with heterosexual condom use ($r_+ = 0.06$), confirming the current view of social psychologists and sexual health-educators that knowledge, on its own, is a poor target for AIDS-prevention interventions. Likewise, effect sizes for demographic variables were extremely small, the highest being only $r_+ = -0.11$ for both age (i.e., younger respondents were more likely to report heterosexual condom use) and marital status (i.e., married individuals were least likely to use condoms compared to

singles, divorced, or separated), suggesting that atheoretical investigations of condom use that focus exclusively on demographic characteristics may miss out on a number of more important factors.

Heterosexual Condom Use among Young Filipino Men

Findings from the latest Young Adult Fertility and Sexuality Survey (YAFSS3) provide a description of the extent of condom use (or non-use) in a nationwide probability sample of young Filipino men ages 15 to 24, at least during their experiences of heterosexual sex taking place prior to marriage (Natividad and Marquez, 2004). When asked about their last heterosexual sexual episode, only 26.6% of young Filipino men reported having used any method of contraception. Among those who did, 45.2% reported using a condom. This amounts to a condom use rate of about only 12% among young Filipino men during their most recent heterosexual sex.

While this supposedly shows a marked improvement in condom use rate among young Filipino men in 2002 from 1994 (during which only about 6.9% reported having used a condom during last heterosexual sex prior to marriage), it appears that the most recent data available indicate that almost 9 out of 10 young, sexually active Filipino men have had unprotected heterosexual sex prior to marriage.

Note though that these YAFSS3 findings focus primarily on sexual behaviors that take place prior to marriage, positing that "premarital sex" is essentially a "risky sexual behavior"[2]. Critical social psychologists who use a discursive approach in working toward health promotion caution against the automatic and unreflective framing of many behaviors as essentially risky (Marks et al., 2005). While it is true that heterosexual sex prior to marriage can involve high levels of health threat (especially when no protection like condoms is used), by constructing "premarital sex" as risky in and of itself, we may be disregarding the fact that sex among married partners can and do pose risks, especially if one partner engages in unprotected extramarital sex (see Natividad and Marquez, 2004, for an exploration) and then fails to use condoms with the spouse (see Willig, 1995, for a discursive analysis of risky unprotected sex within a marital context).

This last point notwithstanding, if we consider that only one episode of unprotected sex is required for the transmission of HIV (as well as other STIs and even unintended pregnancy), perhaps there is indeed some validity to the pronouncement of the YAFS3 researchers that "the basic facts [about young Filipino sexual behaviors] are disturbing" and require intervention (Raymundo, 2004, p. 152). These sexual health interventions can be informed by further exploration of Filipinos' specific sexual behaviors, such as the use/non-use of protection by young Filipino men during heterosexual sex.

Problem

The overall goal then of this study was to investigate condom use as sexual health behavior among young, heterosexually active Filipino men ages 15 to 24, based on a secondary analysis of national survey data. In particular, the study seeks to:

1. describe the overall level of condom use among young Filipino men during their most recent heterosexual sex,
2. identify predictors of heterosexual condom use among young Filipino men, and
3. explore some of the subjective reasons for young Filipino men's use of condoms during heterosexual sex.

II. Method

Dataset

The data used for this paper were from the male subsample of the 2003 NDHS, a nationally representative interview-based study conducted by the National Statistics Office (NSO) of the Philippines. Using stratified, multi-stage cluster sampling, questionnaire-based field interviews were conducted with N = 4,766 Filipino men aged 15 to 54 years old (response rate of 95.1%) in order to obtain population-level information on a number of social and health concerns including reproduction, contraceptive knowledge and use, condom attitudes and usage, sexual activity, and HIV/AIDS.

Procedure

In order to explore young Filipino men's heterosexual condom use, the paper used the following procedure. First, a review of the social psychological research literature was conducted to list potentially useful predictors of condom use behavior. In particular, meta-analytic studies by Sheeran, Abraham, and Orbell (1999) and Albarracín, Johnson, Fishbein, and Muellerleile (2001) served as the primary bases for identifying the relevant variables. Combining these two reviews considered more than 45 constructs from a variety of heterosexual condom use models including the AIDS risk reduction model, the theory of reasoned action, and the theory of planned behavior.

Second, variables in the NDHS men's dataset were screened for availability and correspondence with the above predictors. Those that had very uneven proportions were excluded (for example, being tested for HIV, only 0.9%; and self-reported STI, only 0.5%). This process yielded eight possible predictors, namely:

(1) Knowledge of condom sources (whether respondents knew of a place where a person could acquire condoms or not),

(2) Protection beliefs (whether respondents believed that regular condom use could reduce the chances of HIV transmission or not),
(3) Attitudes toward condoms (a composite two-item measure that tapped into respondents' views of condoms as "diminishing a man's sexual pleasure" and as "very inconvenient to use", Cronbach's á = 0.64),
(4) Condom use during coital debut (whether respondents reported using a condom the first time they had sexual intercourse or not),
(5) Type of sexual partner (whether the woman with whom the respondents last had sex was their spouse/cohabiting partner vs. a non-cohabiting girlfriend/fiancee vs. a friend/casual acquaintance vs. a commercial sex worker),
(6) Age,
(7) Socio-economic status (as measured by the NDHS wealth index quintile), and
(8) Educational attainment (none/elementary vs high school vs college/university).

Finally, these eight predictors were assembled into a binary logistic regression model in order to assess their relationship to the dichotomous outcome variable of young Filipino men's condom use or non-use during their most recent heterosexual sex.

III. Results

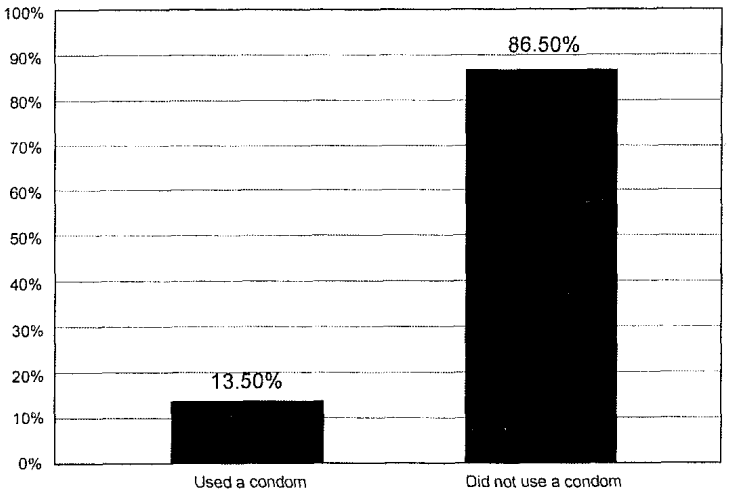
Respondents

Of the N = 1,702 young Filipino males ages 15 to 24 in the NDHS dataset, 34.9% (N = 594) were sexually active. Average age at their first heterosexual sex was 17.6 years (SD = 2.19, 95% CI = 17.41 - 17.79). Majority of the sexually active respondents were Roman Catholic (83.8%). About 23% had no formal education or only elementary-level education, 50.7% up to high school, and 26.3% up to college or higher. Majority were single (62%), some were married at the time of the survey (23%), and the rest were cohabiting with a woman (15%).

Condom Use during Most Recent Heterosexual Sex

The reported level of condom use among young Filipino men during their most recent heterosexual sexual episode was quite low, only about 13.5% (see Figure 1). This percentage is slightly lower than respondents' reported level of condom use during the first time they had heterosexual sex (16.5%). Almost nine out of 10 young Filipino men's most recent sexual encounter with a woman involved unprotected sex, confirming the YAFSS3 finding that heterosexual condom use is indeed low among young Filipino male adults.

FIGURE 1. Young Filipino Men's Condom Use During Their Most Recent Heterosexual Sex



Predictors of Condom Use

A total of $N = 379$ cases were available for logistic regression analysis after screening for missing values. A test of the full model with all eight predictors against a constant-only model was significant, $x^2(14) = 121.13$, $p < 0.01$, suggesting adequate fit with the data. Prediction success was relatively high (90.8%) and the model accounted for a moderate amount of variance, Nagelkerke $R^2 = 0.50$.

Only two of the eight predictors, however, were statistically significant (see Table 1), namely: (1) condom use during coital debut, Wald $x^2(1) = 45.84$, $p < 0.01$, and (2) type of sexual partner, Wald $x^2(3) = 17.79$, $p < 0.01$. That is, young Filipino men who used a condom the first time they had sex with a woman were more likely to use a condom during their most recent heterosexual sex (odds ratio = 21.75). Also, young Filipino men were less likely to use a condom when their sexual partner was their spouse or cohabiting partner compared to the other types of partners. He is more likely to use condom when she was a commercial sex worker (odds ratio = 11.53), a friend or casual acquaintance (odds ratio = 10.57), or a non-cohabiting girlfriend or fiancée (odds ratio = 12.55). Information-related labeling factors like knowledge of where to obtain condoms and personal beliefs that condom use protects against HIV, as well as the commitment factor of attitudes toward condoms, were not significantly related to condom use. Similarly, demographic characteristics like age, socio-economic status, and education did not appear to be significantly associated with the use of condoms during heterosexual sex (all p's > 0.1).

Rerunning the logistic regression model with only the two predictors yielded similar results, suggesting that previous condom use and type of sexual partner were important factors in

TABLE 1. Odds Ratios for Logistic Regression Models

Predictor	Model 1 (*N* = 379 cases)	Model 2 (*N* = 418 cases)	Model 3 (*N* = 384 cases)
Condom use during coital debut (no = 0)	21.75***	20.30***	—-
Type of partner (spouse/cohabiting partner = 0)			
Sex worker	11.53***	22.87***	—-
Friend/casual acquaintance	10.57***	9.19***	—-
Non-cohabiting girlfriend / fiancée	12.55***	10.35***	—-
Attitudes toward condoms	1.35	—-	1.66**
Knowledge of condom sources (knows = 0)	0.26	—-	0.16*
Protection beliefs (with belief = 0)	1.09	—-	0.57
Educational attainment (college = 0)			
None/elementary	0.13*	—-	0.14*
High school	0.81	—-	0.77
Socio-economic status (richest = 0)			
Poorest	1.84	—-	0.36
Poorer	3.61	—-	0.94
Middle	2.14	—-	0.78
Richer	1.07	—-	0.59
Age	1.09	—-	—-

*$p < 0.05$, **$p < 0.01$, *** $p < 0.001$

and of themselves, even without the additional six variables. A test of the model with the two predictors (based on $N = 418$ available cases) against a constant-only model was significant, $x^2(4) = 114.87, p < 0.01$. Prediction success was high (91.1%) and the parsimonious model still accounted for a considerable amount of variance, Nagelkerke $R^2 = 0.45$. Condom use during most recent heterosexual sex was associated with condom use at coital debut, Wald $x^2(1) = 60.34$, $p < 0.01$, odds = 20.30, and the type of sexual partner, Wald $x^2(3) = 25.80$, $p < 0.01$. Young Filipino men were more likely to use condoms with sex workers (odds ratio = 22.87), friends (odds ratio = 9.19), and girlfriends (odds ratio = 10.35) rather than with spouses.

A final logistic model was run with the five remaining predictors excluding age, to examine possible relationships masked by condom use at sexual debut and by type of sexual partner acting as suppressor variables. A test of this model (based on $N = 384$ available cases) against a constant-only model was significant, $x^2(9) = 38.64$, $p<0.01$. Prediction success was 86.15%, although this model accounted for a much lower amount

of variance, Nagelkerke R^2=0.17. Condom use during most recent heterosexual sex was less likely among those with elementary-level or no education compared to college-level, Wald $x^2(1)$=4.83, p<0.03, odds = 0.14; less likely among men who did not know of a place to obtain condoms, Wald $x^2(1)$ = 4.25, p<0.04, odds = 0.16; and more likely among those with positive attitudes towards condoms, Wald x^2 (1) = 6.77, p<0.01, odds = 1.66. Protection beliefs and socio-economic status were not significantly associated with condom use during most recent heterosexual sex (all p's>0.1).

Subjective Reasons for Condom Use

Respondents who used a condom during their most recent heterosexual sex were also probed for their subjective reasons for condom use (see Figure 2). Respondents were asked "What is the main reason you used a condom the last time you had sexual intercourse with a woman?" then presented five possible options. Only 11% identified "HIV/STI prevention" as their primary motivation. Majority of respondents said they used a condom as a form of contraception (69%) while one-fifth (20%) claimed condom use was for both contraception and STI/HIV prevention purposes. None of the respondents cited the two other options: "lack of trust in the partner" (0%) and "request/insistence of partner" (0%) as condom use reasons.

These responses may imply that young Filipino men's cognitions of condoms, at least in the context of these most recent heterosexual experiences, were geared towards construing condom use as a method of contraception rather than as overall protection for sexual health. A cross-tabulation analysis of subjective reasons for condom use against type of sexual partner (see Table 2) suggests that pregnancy prevention motivation was especially salient during condom use with spouses or girlfriends (34 out of 43 total instances) while STI/HIV protection was not (two out of 43 instances). It appears that for young Filipino men, the sexual relationship may serve as an important context in which functions of condoms are made salient and consequently which subjective reasons will be seen as motivating. For

FIGURE 2. Subjective Reasons for Heterosexual Condom Use by Young Filipino Men

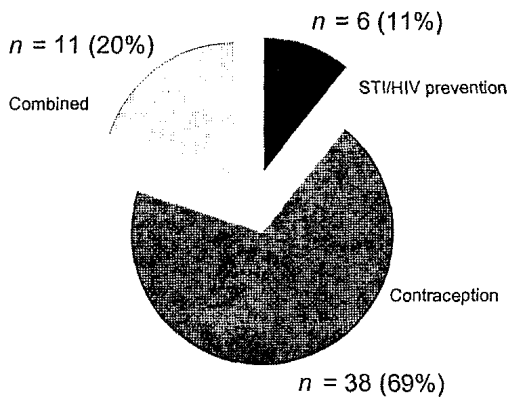


TABLE 2. Cross-tabulation of Type of Sexual Partner vs Subjective Reasons for Condom Use

Subjective Reason	Type of Sexual Partner				
	Spouse	Girlfriend	Friend	Sex Worker	Total
To prevent STI/HIV	0	2	3	2	7
To prevent pregnancy	6	28	4	1	39
To prevent STI/HIV and pregnancy	1	6	2	3	12
Total	7	36	9	6	58

example, with "steady" partners like girlfriends and spouses, condoms may be construed as contraception, presumably because such relational contexts are perceived as less (or even not at all) risky in terms of STI/HIV transmission (Willig, 1995). Because the current sample was too small to pursue this hypothesis, further investigation of this association with larger samples is needed to tease out this potentially important interaction.

IV. Discussion

Secondary analysis of the 2003 NDHS data indicates that condom use among young Filipino men ages 15 to 24 during their most recent heterosexual sex was quite low. Condom use was predicted by only two factors: whether a condom was used the first time a man had heterosexual sex, and the type of sexual partner. Young Filipino men were more likely to use a condom the most recent time they had sex with a woman (1) if he had used a condom the first time he had heterosexual sex, and (2) if his partner was a girlfriend, a friend, or a sex worker (as opposed to a spouse). The most common subjective reason for condom use was for pregnancy prevention, and STI/HIV protection was not a particularly salient motivation for many users.

Results from the present study thus point to two important aspects of heterosexual condom use: that condom use may develop into habitual action and that condom use is a highly contextualized behavior.

Condom use as habitual behavior

Recent heterosexual condom use by young Filipino men was seen to be strongly predicted by their condom use at sexual debut, showing that, as many behaviorally oriented psychologists have maintained, past behavior predicts future behavior (Ouellette and Wood, 1998). Meta-analytic investigations of the past-behavior – future-behavior relationship have shown that past behavior is a robust predictor of future behavior comparable in effect with other, more social cognitive variables such as behavioral intentions, attitudes, norms, and perceived task difficulty,

especially in stable, supportive contexts. Examples of these actions influenced by past behaviors include coffee drinking, alcohol consumption, exercising, seat belt use, bicycle helmet use, church-going, class attendance, and even condom use (e.g., Stacy, Stein and Longshore, 1999).

In one recent investigation, Shafii, Stovel, Davis, and Holmes (2004) studied the relationship of condom use during adolescent sexual debut with condom use at most recent sex using a nationally representative sample of $N = 4{,}024$ sexually active adolescents in the U.S. Results of their logistic regression indicated that condom use during first sex significantly increased the likelihood of condom use during most recent sex, even after controlling for other factors like perceived risk, time interval, partnership features, and demographic characteristics.

It appears that condom use may therefore develop as a habit, i.e., using a condom during heterosexual sex becomes a well-practiced, automatic behavior that occurs in stable contexts (Ouellette and Wood, 1998). By beginning one's heterosexual behavioral history with condom use, condoms may become a routine feature of sex so that in future instances, one will automatically use a condom when having sex. If condom use is indeed habitual, at least for some young Filipino men, then conscious, deliberative decision-making and cognitive appraisal processes (including related factors such as HIV/AIDS knowledge, information about condom efficacy, attitudes toward condom use, etc). may have little to do with condom use behavior itself, which may explain why such variables had relatively little predictive ability in the model.

Condom use as contextualized behavior

In addition to its potential to be an automated, habitual behavior, heterosexual condom use, as established by the current analysis, is a contextualized behavior. That is, heterosexual condom use takes place in an immediate social psychological context of partnership and sexuality. Young Filipino men were least likely to use a condom during sex with a spouse, which is consistent with previous findings that indicate that condoms are more likely to be used with casual partners and "one-night stands" and least likely to be used with steady partners like spouses (Ellen, Cahn, Eyre and Boyer, 1996; Gerbhardt, Kuyper and Greunsven, 2003). Ironically, unprotected sex seems most likely among steady (though not necessarily monogamous or HIV/STI-free) sexual partnerships, the same relationships that are most often construed as "safe" and "healthy."

This contextual effect has been explained by social psychologists as a result of people's implicit theories that steady partnerships (those that develop over time and involve "love" or "trust") are essentially "safe" from negative outcomes like HIV transmission (Gerbhardt, Kuyper and Greunsven, 2003; Glasman and Albarracín, 2003). Discursive analyses have also suggested that for many individuals, condoms carry symbolic meanings that may be incompatible with how close relationships like heterosexual marriage are construed. In particular, condoms may signify "promiscuity" while the discontinuation of condom use in a developing relationship may imply the development of "trust." Thus, "trust" may be

invoked by relational partners to justify a reluctance to use condoms, either by arguing that the existing trust between spouses makes it "unnecessary" to use condoms or by suggesting that the use of condoms would undermine trust and therefore damage the relationship (Willig, 1995).

In a related manner, condom use is not only influenced by relationship-based discourses and implicit theories but also by the fact that individuals recognize that condoms can function as protection against HIV and STIs and as a method of contraception. However, it appears that these functions and related motivations have differential salience for young Filipino men, many of whom may construe condom use solely as contraception without considering its HIV/STI-protective features, especially in the context of certain types of sexual partnerships such as with spouses as against with friends or sex workers. Clearly, while quantitative, demographic data can point out particular patterns in sexual health behavior like condom use in the context of relationships, more research is needed to disentangle these multiple meanings of condoms and motivations for condom use among young Filipinos, using more context-based qualitative and discursive methods.

Implications for Intervention

Based on the current analysis, the best predictors of heterosexual condom use among young adolescent males in the Philippines were condom use during coital debut and type of sexual partner. This suggests that efforts at promoting condom use as a sexual health behavior is best in place early on, prior to the onset of interpersonal sexual behavior. This way, sexual health behaviors like heterosexual condom use increase in automaticity and are likely to become more habitual once individuals become sexually active.

The present study also implies that recognition of the relational context of condoms and condom use needs emphasis. Different strategies may be needed to promote condoms for different partnership contexts, especially in presumably "safe" relationships like marriage. Lay conceptualizations like "trust" or "tiwala" may be important to examine, as well as individuals' cognitive representations of condoms (including beliefs about the purposes of condoms), discursive constructions of condom use in Filipino culture, and norms and attitudes related to condom use vis-à-vis other contraceptive methods.

Limitations

A number of caveats about the current study should be kept in mind. First, the data are based on retrospective self-reports. While these are the most common bases of sexuality surveys, such reports are easily affected by biases in recall or self-presentation (Marks et al., 2005). Second, the cross-sectional design of the NDHS does not allow for the full, prospective investigation of predictor-outcome relationships, especially in the case of past behavior-future behavior relationships. In particular, because the structure of the NDHS dataset does

not allow for the specification of the particular respective timings of first and most recent heterosexual sex, statistical assessment of this predictor-outcome relationship can certainly be improved upon by future investigations using superior designs like a prospective cohort methodology. Third, the current analysis was limited to young Filipino men and may not generalize to other age groups or to Filipino women (given documented gender differences in condom use dynamics; see for example, Gerbhardt, Kuyper and Greunsven, 2003). Finally, as in any secondary analysis, the variables included in this paper were limited to those available in the dataset. Further research should consider expanding and improving how some of the variables were conceptualized and measured, for example, condom use and attitudes towards condoms. Future studies could look into consistency in condom use (rather than focusing only on particular behavioral instances like most recent or first use) since it is *consistent* condom use that has been shown to provide high protection against HIV and STIs. Improved measures of attitudes as well as other, more theoretically based constructs like self-efficacy and subjective norms are also needed to determine how well these variables truly influence condom use behaviors among young Filipinos.

These limitations notwithstanding, it is hoped that the current analysis, which attempted to put together a social psychological approach incorporating theoretically meaningful constructs alongside demographic data, can offer initial insights into a significant, micro-level behavior like heterosexual condom use, an important step in the management of HIV transmission in the Philippines and in the promotion of the sexual well-being of young Filipinos who engage in and enjoy heterosexual sex.

Notes

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2. A reviewer commented that YAFSS3 does not necessarily frame "premarital sex" as essentially sexually risky and only "raises" the possibility of it as a risky sexual behavior, pointing out that in their summary, Natividad and Marquez (2004) actually state that "PMS can be a risky sexual behavior" [emphasis added] (p.93). I would argue, however, that simply by including it in a chapter titled "Sexual Risk Behaviors" and identifying it as one of "three major categories of sexual behaviors associated with [sexual risk]" (p.70), YAFSS3 does construct premarital sex, for all intents and purposes, as risky. This discursive construction is reflected and the risk label is reified in a later chapter (Raymundo, 2004), when a summary list of young Filipino risk behaviors is presented, including the "basic disturbing fact" that "3.8 million have engaged in premarital sex, with almost 80% of them practicing unsafe or unprotected sex" (p.153). From a discourse analytic perspective, it is interesting to note how by constructing "premarital sex" as risky (or at least potentially risky), marital sex is implicitly positioned as "safe" and unproblematic, even though STI transmission and unwanted pregnancy (the two fundamental risks identified by YAFSS3 researchers) could be argued to be similarly "potential" concerns even among married heterosexuals couples. In the end, perhaps all of us – regardless of how we operationalize (or not operationalize) the construct of *risk* – would be best served by heeding the advice of Beadnell and others (2005), who persuasively argue that although single risk indicators like early age of first intercourse, number of sexual partners, consistency of condom use, etc. can each be considered an aspect of sexual risk-taking, none by itself is valid as an operationalization of risky behavior. All these single indicators are *proxy* indicators, capturing some of the variance in risk but none completely capturing the construct.

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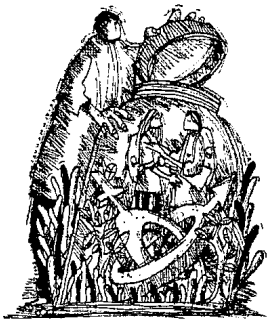

Special Report: The Filipino Diaspora

The Brain Drain Phenomenon and its Implications to Health*

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I. Introduction

The Philippines has traditionally been a major source of health professionals to many countries. Because of their fluency in English, this language being the major tuition of their health sciences education, and largely due to their world-renowned people skills in practicing compassion, humaneness, and patience in caring, Filipino nurses and doctors have been in great demand globally for the past four decades.

The country is reputedly the acknowledged major exporter of nurses to the world (Aiken et al., 2004; Bach, 2003) and the second major exporter of physicians, with India being the first. During the mid-seventies, 68% of Filipino doctors were working outside the Philippines (Mejia, 1979). Very recent studies show 70% of all Filipino nursing graduates are working overseas (Bach, 2003). In the last five years, Filipino nurses constitute the major ethno-linguistic group of migrant nurses in the United Kingdom and Ireland. With the high demand for nurses mainly in the United States, United Kingdom, and Ireland, Filipino doctors in droves have started to enroll in abbreviated nursing courses specially designed for physicians converting to nurses.

The Antonio G. Sison Memorial Lecture will mainly deal with this "out of the box" phenomenon in health human resources development, never before seen in any country. It

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will explore the multi-faceted causes of the situation and discuss the major consequences in the health care delivery system in the Philippines. Strategic solutions, to be acted upon globally and nationally, are recommended to mitigate an impending health crisis as well as avert, in the long-term, a health human resources disaster.

II. The Philippines at a Glance

2.1 Basic Population Data

Population	85 million (estimate for 2005)
Population Growth Rate	2.36% (2000) or 2 million babies born every year or 5,479 a day (2005)
Sex ratio	101.4 male (2000)
Proportion of 0-14 years of age	37 % (2000)
Proportion of 65 years old and over	3.8% (2000)
Average household size	5.0 (2000)

Source: National Statistics Office [NSO], 2000,2004

2.2 Basic Economic Data

US$ to Philippine Peso Exchange Rate	US$1.00 = Php 55.94 (2004)[a]
Annual average family income	US$2,619 (2000)[b]
Poverty incidence	34% or 25.8 million population (2001)[c]
Total labor force	35 million (2003)[d]
Unemployment rate	10.1 %[d]
Underemployment rate	15.7 %[d]
Budget deficit	US$5 billion or 30% of the national budget (2003)
Proportion of budget going to debt servicing	45 % (2003)

Source: [a]Central Bank of the Philippines (CBP), 2004; [b]Family Income and Expenditure Survey [FIES] in NSO, 2004; [c]National Economic Development Authority [NEDA] in NSO, 2004; [d]Labor Force Survey [LFS], 2003 cited in NSO, 2004

2.3 Vital Statistics

Crude birth rate per thousand population	25.16 (2003) [a]
Crude death rate per thousand population	5.72 (2003) [a]
Total Fertility Rate	3.5 (2003) [b]
Infant Mortality Rate	29 (2003) [b]
Under-Five Mortality Rate	40 (2003) [b]

Source: [a] National Statistics Office, 2004; [b] National Demographic and Health Survey [NDHS], 2003

2.4 Measurements of Access to Basic Health Services

Percent of children who were delivered by a health professional	59.8 % (2003)[b]
Percent of children who were delivered In a health facility	37.9% (2003)[b]
Percent of deaths attended by a health professional	48% (2003) [a]
Percent of children 12-23 months fully immunized	60% (2003)[b]
Contraceptive Prevalence Rate	48.9 (2003)[b]
Physicians per 100,000 people	124 (2002) [c]

Source: [a] National Statistics Office, 2004; [b] National Demographic and Health Survey [NDHS], 2003; [c] United Nations Development Program (UNDP), 2003

2.5 Health Financing Data

Health budget as a proportion of national budget	1.1% (2005) [a]
Health expenditures as a proportion of GDP	3.1% (2002)
Proportion of population covered by national health insurance	60% (2003)
Proportion of national health insurance expenditure to total health expenditure	9% (2002)

Source: [a] Department of Budget and Management, 2004;

III. The Health Human Resource Development (HHRD) Policy Environment

Sanchez and Batangan (1995) identified, a decade ago, three major policy gaps in the HHRD environment in the Philippines. The two physicians were commissioned by the Department of Health (DOH) in 1992 to formulate a 25-year HHRDD plan for 1995-2020. Their recommendations, however, remain unheeded to this day and the master plan still has to see the light of day in its implementation.

The major policy gaps are:

One. There is no official unified government policy in HHRD. The Department of Labor and Employment (DOLE), Philippine Overseas Employment Administration (POEA), Department of Finance (DOF), and the Department of Trade and Industry (DTI) all say to our health professionals and our other skilled workers, "Go abroad". The DOH, the Commission on Higher Education (CHED), and the Professional Regulatory Commission (PRC) say, "Stay and serve the country". There is no single view from government and the two messages are contradictory to each other. Definitely, something is wrong with the Philippine policy on HHRD.

The major reason for this dissonance is mainly due to our economic policy makers. They have been promoting overseas employment as a way of generating inflow of foreign currencies to preserve economic growth. For 2004, the Philippines received US$8.5 billion in foreign currency remittances mainly from overseas Filipino workers (OFWs) (CBP, 2004). This is eight times the total foreign investments received in 2003, which is a meager US$1 billion (CBP, 2004).

On the other hand, the health sector has remained chronically under funded since the 1970s. The health budget in 2004 is a meager 1.6% of the total national budget. For 2005, the proportion has even gone down to 1.1%. Total health expenditures have been in the level of 3% of gross national product (GNP), way below the 5% recommended by the World Health Organization (WHO). Thus, the health sector policy makers have been unable to convince health professionals to stay in the country.

Two. There is no single government agency responsible for concerted HHRD planning and management. There are 14 government agencies involved in HHRD policy, planning and management. These are the: (1) DOH, (2) Department of Science and Technology (DOST), (3) PRC, (4) CHED, (5) Technical Education and Skills Development Authority (TESDA), (6) DOLE, (7) POEA, (8) Overseas Workers Welfare Administration (OWWA), (9) Philippine Health Insurance Corporation (PhilHealth), (10) Philippine Institute of Traditional and Alternative Health Care (PITAHC), (11) DTI, (12) DOF), (13) National Economic and Development Authority and the (14) Department of Foreign Affairs . Not even one of these 14 government agencies is taking any leadership in the national HRRD.

The DOH has no regular or official ties with the PRC or the POEA or the CHED or the TESDA. The PRC has no regular meetings with the DTI or the DOF as regards the plight of health professionals. The DOLE rarely discusses the issues of health human resources deployment, retention, and development with the DOH or PRC or the CHED. Clearly there is no leadership and coordination among the government agencies involved in the planning, production, placement, and maintenance of health professionals, whether in the short-term or in the long-term. The private health sector, the health professions associations, faculties of medicine, nursing and other health sciences education institutions, and the various civil society organizations in health are also in a quandary on who among the government agencies to approach regarding solving the current issues and concerns of HHRD.

Third. There is no official information and data base of health human resources in the country. No government or private organization analyzes systematically the trends in health human resource production and deployment from a national perspective. There is a National Health Accounts established since 1995 but the expenditures for HHRD has not been integrated into such accounts systems. This is the tragedy of HHRD in our country. The end result is no reliable and accurate data on many aspects of HHRD that serve as the basis for an evidence-based national health policy development and national planning for HHRD. For example, the Philippine Medical Association (PMA), the Philippine Nurses Association (PNA), Integrated Midwives Association of the Philippines (IMAP), and the Philippine Dental Association (PDA), have different figures on the total number of doctors, nurses, midwives, and dentists in the country today compared to the data from the PRC and CHED. The PRC can give figures of the total number who passed the different licensure examinations annually but they cannot account for the number of nurses who have become medical representatives or doctors who have become full-time business entrepreneurs or how many have gone abroad. There is disparity of data among major government agencies (PRC, CHED, DOH, POEA, DOLE) and the different national associations of health professionals and associations of medical and nursing schools also have different figures. There have been no formal, official systematic studies on the health workforce in the Philippines.

IV. The Philippine Health Resources Situation with Focus on Doctors and Nurses

The major driving force that has motivated Filipino doctors to become nurses stems out of the enormous demand for nurses especially in the North countries, which started within the last five years. The United States became the most attractive market when foreign graduate nurses and their families were given migrant visas after the Year 2000.

The North countries have started to feel the impact of their changing demographics in terms of access and quality of health care. The continuing increase in life expectancies and the

rise of their aging population have demanded long-term health care for chronic degenerative diseases particularly for the elderly. The nursing profession in these countries is also under challenge with less and less young people getting into nursing because of less ideal working conditions, the threat of being infected with HIV/AIDS and SARS, plus the attraction of new professions which pay better than nursing without the necessary risks at work.

Since 1994, estimates show that more than 100,000 nurses have left the Philippines to work abroad. In the last four years (2000-2003), more than 50,000 have departed. While Philippine nurses went to at least 32 countries, the major countries that received thousands of nurses are the United States, United Kingdom, Saudi Arabia, Ireland, and Singapore (POEA, 2004; Aiken, et al., 2003).

The POEA reported only a total of 84,843 nurses that left the country from 1994 to July 2003. However, this report clearly shows underreporting because POEA data show only 91 nurses (in 2000), 304 (in 2001) and 320 (in 2002) going to the United States. It is open knowledge that US-based hospitals have been directly recruiting nurses in the Philippines by the thousands bypassing the POEA system.

The United States and the United Kingdom offer the best working conditions for Filipino nurses. Filipino nurses need to take the Commission of Graduates of Foreign Nursing Schools (CGFNS) and the National Council Licensure Examination (NCLEX) examinations to qualify entry in the United States. However upon passing, Filipino nurses are given migrant visa status, including their spouse and children and a work contract with remuneration of at least US$4,000 a month. Some hospitals offer subsidized housing grants.

In the United Kingdom, only an English proficiency examination or TOEFL (Test of English as a Foreign Language) is required and a work contract equivalent to US$3,000. Compare these remunerations with their monthly salary in the Philippines which is about US$180 - US$220 a month. Clearly the pull factors have been very attractive.

While the Philippines traditionally produce a surplus of nurses for export since the 1960's, the large exodus of nurses in the last four years has been unparalleled in nurse migration history.

Equally disturbing is the deteriorating quality of nursing education. The number of nursing schools increased by leaps and bounds. In the 1970's, there were only 40 nursing schools. By the 1990s, there were 170. By June 2003, there were 251 nursing schools and by April 2004, a total of 370 nursing schools have sprouted all over the country (ADPCN, Inc., 2004). There has been an increase in nursing schools of 47% nationwide and an 84% increase just in Metro Manila since June 2003.

The increase in nursing schools have not led to increasing number of qualified nurses who pass the national nurse licensure examinations, In the 1970's and 80's, the proportion of nursing graduates passing the national nursing licensure examinations was somewhere between

80 % to 90 %. However since 1994, the passing mark has been below 61 %. In the Years 2001-2003, proportions of passing reached a low of 44 % to 48 %. Unlike before when the number of nurse licensure passers reached 22,000 to 25,000 a year, the last four years only register an average of 4,400 nursing graduates passing the nurse licensure examinations (PRC, 2004). Thus, the number of nurses that left in the last four years (approximately 50,000) far exceeds the production of licensed nurses of only 20,000.

The Philippine socio-economic and political situations have not helped much in the retention of licensed nurses in the country. The stagnating economy, the unstable political conditions with persistent communist armed insurgency and Muslim secessionist movements, and a general climate of apathy and hopelessness have been tremendous push factors for our nurses to leave for better opportunities and a better future for themselves and their families.

These same pull and push factors are also the major driving forces for the increase in physician migration within the last four years, but this time with a difference. While Filipino physicians have been migrating to the United States since the 1960's and to the Middle East countries since the 1970's in steady outflows, the more recent outflows is disturbing because they are no longer migrating as medical doctors but as nurses.

Based on our baseline survey of nursing-medics in the Philippines (Galvez Tan et al., 2004), more than 3,500 Filipino medical doctors have left as nurses since the year 2000. A little more than 1,500 have just passed the national nurse licensure examinations in 2003 and early 2004 (PRC, 2004). An estimated 4,000 doctors are now enrolled in nursing schools all over the country.

Preliminary findings also show that there are at least 43 nursing schools offering an abbreviated nursing course tailor-made for medical doctors. The course usually involves weekend sessions and trainings for a period of two years. Some schools conduct the course on evening classes daily for one to two years. They go through the nurse capping ceremonies and nursing duties in hospitals. The total cost of this two- year abbreviated course ranges from US$1,500 to US$3,500.

Medical doctors becoming nurses come from all kinds of specialties: surgery, orthopedic, obstetrics, pediatrics, anesthesiology, internal medicine, family medicine, general practice, and public health. No specialty has been spared. Their age range is from 25 years old to 60 years old. Years of practice as physicians range from zero to 35 years.

Equally disturbing are the following medical education data. There has been a decrease in the number of examinees of the National Medical Admission Test (NMAT) by 24 % from 2002 to 2003 (Center for Educational Measurement [CEM], 2004). This has resulted in a decrease in the number of applicants entering medical schools. There has been a decrease in first year medical school enrolment that has ranged from a decrease by 10% to as high as 70%, with an average of 47%. Three medical schools have already closed down. Two

private medical schools located in the rural areas are contemplating on closing down due to a severely low enrolment of less than 20 this school year. A random sampling of 10 large training hospitals has shown also a decrease in applications in residency training positions for 2005 (Association of Philippine Medical Colleges [APMC], 2004).

There are 36 medical schools in the country (APMC, 2004). Only two regions, both in Mindanao (the southernmost part of the country), have no medical schools. Only seven of these schools are public; all the rest are private. In the 1970's there were only seven medical schools (one public and six private). The total cost of a five-year medical education based on school tuition fees alone is US$10,000 per student. Total cost of textbooks, uniforms, board and lodging, and other miscellaneous expenses range from a low of US$10,000 to a high of US$20,000. Total number of graduates in the 70's was in the vicinity of 1,000. In the past four years, an annual average of 3,600 medical graduates passes the medical licensure examinations. There are more women medical graduates than men.

All the above data show that the medical profession in the Philippines is under severe threat of decimation.

V. Effects and Emerging Outcomes of these Unusual Outflows of Doctors and Nurses

While the perception exists that the Philippines remains as a potent producer of nurses to supply the world due to the actual surpluses over the last four decades, the current situation is showing otherwise. If the circumstances of the last four years persist, a severe health care crisis is bound to happen.

At least three hospitals in Mindanao (Surigao del Norte, Lanao del Sur, and Sulu) and two hospitals in Isabela province have no more nurses in their staff. Two hospitals in Zamboanga del Sur could not operate their new wards due to lack of nurses. Mindanao has always been deficient in the health human resources in all aspects, whether in numbers, ratios, and distribution. The mass migration has severely strained this underserved part of the country. All rural areas in the Philippines are also vulnerable to these health human resources deficiencies.

Hospitals, both public and private, all over the country have been lamenting the loss of their senior experienced nurses, their nurse-patient ratio, now less than ideal and new nurse entrants no longer as efficient and effective as before.

The University of the Philippines - Philippine General Hospital (UP-PGH) in Manila, which is the largest hospital in the country and the major training hospital for doctors and nurses in the Philippines employing only the top 10% of graduates of nursing schools, now has to lower their standards by hiring nurses who just make the minimum passing mark. Not so much that there is lack of applicants (because the PGH is still the best training hospital in

the country), but the top graduates of nursing are no longer applying for they are already leaving for abroad. The PGH loses 300 to 500 nurses of their 2000 health workforce every year.

Doctors becoming nurses and leaving the country by the thousands further heightens the danger of a major health crisis in the immediate future. The same hospitals mentioned earlier in Mindanao and Isabela also have no doctors to serve them anymore. The Philippines as a whole has been suffering from severe maldistribution of doctors with those who did not migrate mainly practicing in large urban areas and the rural areas and towns left unattended by medical services.

The ultimate outcomes and impact on health and quality of life still have to be measured. The Philippines has always had a failed health system as shown by the lack of access of health care by more than 50% of the population. Five out of 10 Filipinos die without getting medical attention. Only 60% of the population has full access to essential drugs. Ten mothers die everyday due to pregnancy and childbirth-related causes. Forty percent of all births are still unattended by health professionals. More than 100 municipalities remain doctorless and nurseless at any time during the past 10 years.

With chronic underfunding of the health system for the last three-and-a-half decades, the Philippines is bound to experience an impending health disaster if nothing drastic is done.

But is there really no way out? That seems to be the position taken by national policy makers and decision makers. The Philippine national leadership is busy managing the fiscal and budget crisis, manifested by a budget deficit of US$5 billion; debt servicing eating 35 per cent of the national budget and abundant losses due to graft and corruption. The country has been mainly dependent on the more than US$8.5 billion annual remittances from overseas Filipino workers to preserve positive economic growth. The DOH seemed helpless with the Secretary giving a short comment that to resolve the crisis, salary increases for nurses are needed.

This out of the box situation demands out of the box solutions.

VI. Proposed Strategic Solutions

Ten strategic solutions are proposed to resolve the current crisis in HHRD. These strategies do not aim to prevent nurses, doctors nor doctors who have become nurses and other health professionals from leaving the country. The goal is to tame the mass exodus to the Northern countries, achieve a rational programmed departure of our health professionals and secure a win-win situation for the Philippines and the importing countries. Four of these need to be acted upon by cooperative global action and the others a unified national action at the Philippine level of decision and policy makers.

The strategies demanding action at the international level are:

1. The initiation of high-level bilateral negotiations with the major Northern countries importing health human resources. The top five importing countries are the U.S.A., U.K., Saudi Arabia, Ireland, and Singapore. The 14 government agencies (i.e., DFA, NEDA, DOLE, CHED, DOH, PRC, POEA, OWWA, DOF, PhilHealth, PITAHC, DOST, TESDA and the DTI) should all speak in one voice in these negotiations. The bilateral agreements can lead to (1) an annual official development assistance that will fund investment packages for HHRD particularly for health professions scholarships, improvement of training/education and working conditions, and salary incentives; (2) compensation for every health professional transfer by the receiving country wherein the Philippines will establish a National Trust Fund for HHRD to be used for scholarships of nurses and doctors, continuing education, and improvement of working conditions; The bilateral agreements on health human resources between South Africa and the United Kingdom and the one between Poland and the Netherlands are models that the Philippines could emulate; and (3) an ethical framework that will guide recruitment policies and procedures applicable to importing countries.

2. The North-South health facility partnership agreements. A health facility could be a hospital, academic institution or even a clinic that is in a position for bilateral negotiations. The partnership agreements aim to have a specified amount of US dollars given to the exporting health facility for every nurse, doctor or health professional that the US hospitals will acquire from that particular partner hospital. Such funds will go to a health facility-based HHRD Trust Fund which can be used for improvement of health professionals training, nursing and medical scholarships, and improvement of working conditions in the health facility.

3. Convening the HHRD agenda of the General Agreement on Trade and Services (GATS) of the World Trade Organization (WTO). The GATS of the WTO identifies health services and health professional services as commercial goods and services that can be traded across and among countries in need of additional health care services. The Philippine panel led by the NEDA, DTI and DFA must align with other South countries similarly affected by the migration of health professionals to the North countries in order to create pressure to include this in the agenda in the next WTO meeting. The Philippine panel currently does not have a health profession sub-panel to discuss issues attendant to the WTO agenda on health service commodity trading. It is in the interests of health professionals to be represented in the WTO negotiations. The WHO must act as a catalyst to bring this issue to the attention of the WTO.

4. Forging a joint or multi-country research agenda and action program on HHRD between and among importing countries (the North) and the exporting countries (the South). At the very least, there should be a partnership in the regular sharing

of health human resources data and policies among these countries. It would be valuable for the Philippines to know regularly the changing policies on migration of health professionals of the United States or the United Kingdom. The Philippines also is unable to secure vital information on the deployment, placement, and retention of their health professionals who have migrated to the North countries.

On the part of the Philippines, the national strategic solutions that demand action by various stakeholders are the following:

5. Creation of a National Commission on HHRD (NCHHRD). The creation of a NCHHRD is imperative to oversee the overall situation of the planning, production, deployment, retention and development of all health professionals and health workers in the country. This can be a Presidential Executive Order and a legislative act by Congress, later on. The NCHHRD will have members from the executive agencies, Congress, private sector, various health profession associations, health sciences educators and civil society organizations. The major tasks of this National Commission include: (1) review of past and current situation analysis of health human resources; (2) completion of the national health human resource data base; (3) updating of the 25-year National Health Human Resource Plan (1995-2020) designed by Drs. Fernando Sanchez and Dennis Batangan. The plan did not foresee the large health human resource outflows and the phenomenon of doctors becoming nurses at the start of the 21st century.; (4) formulation of a National HHRD Research Agenda; and (5) development of evidence-based national HHRD policies.

6. Enactment of a National Health Service Act. The Philippines is the only country in Southeast Asia without a National Health Service Act. In Indonesia, every year of medical studies and specialist training is to be matched by a year of national health service. The Indonesian model is pragmatic, and humane. If a medical graduate goes to far flung rural areas like Kalimantan or Irian Jaya, the national health service is reduced to only two years while if one serves in urban areas like Jakarta or Bali, the national health service will require the full five years. Malaysia requires all medical graduates, local or foreign, to serve the government health service for a period of three years.

The Philippine National Health Service Act will require health sciences education graduates of state colleges and universities like the University of the Philippines (U.P.), the Mindanao State University or the Western Visayas State University who benefit from subsidized medical and nursing education will serve the equivalent number of years of study in the country. A *compulsory*, instead of a voluntary service, is called for since the situation now is more critical and entirely of a different nature from the past decades of health professional migration. The current crisis warrants not only mitigation but solutions that would have an impact in the long-term in the HHRD of the country.

In the Philippines, there are more private schools than public schools of nursing and medicine. The requirements for private institutions of health learning can be subject to negotiations and public hearings first before any policy is made. A two-year compulsory service, whether in public or private health facilities, could be the requirement for the National Health Service. The Philippine government, being cash-strapped and the DOH chronically under-funded, will not be able to absorb all nursing and medical graduates in their payroll.

7. Establishment of Health Professionals Registry (a national registry of doctors, nurses, midwives, and other health professionals). A Health Professionals Registry, as practiced in other countries, is a management tool that locates and monitors health human resources availability for deployment or transfer. It is usually run by the private sector that can negotiate for better remuneration, better benefits, and better working conditions for health professionals. It is usually geographical in scope like a Health Human Resource Registry per province and per city. If implemented nationwide, city and provincial registries will give national managers an efficient way of tracking and monitoring the movement of health professionals and health workers.

8. Creating Civil Society Organizations-led National Councils for Nursing and Medical Concerns. The major medical and nursing organizations and associations have not been meeting together on a regular basis to discuss common concerns. A National Council for Nursing Concerns and a National Council for Medical Concerns would be able to elicit active participation of civil society organizations in regular fora to analyze the current state of health professionals' development and formulate recommendations for policies and action for the betterment of the various health professions. The Councils will also promote solidarity and collegiality in the light of the threats to the health care delivery system and the health professions.

9. Development of new learning and career opportunities. This could be any of the following: new residency training programs and fellowships, post-graduate courses, and new career tracks for doctors, dentists, nurses and midwives. A variety of well designed post graduate programs and scholarships are attractions to retain health human resources. Medical doctors can have new careers in health economics, health financing, health communications, health entrepreneurships, health advocacy and health informatics. Nursing residency programs can be initiated and expanded in all training- and university-based hospitals like residencies in intensive care nursing, operating room nursing, and emergency room nursing, to name a few. New career tracks like nurse counselors, nurse practitioners, midwife and nurse wellness advisory, community nursing, complementary and alternative medicine and health research can be developed and implemented.

10. Initiating reforms in health financing and management of medical education in the country. Create more scholarships for medical students in underserved areas. In

underserved areas with only private medical schools, reward the high performing medical schools with these scholarships. There are still two regions in the Philippines with no medical schools, the Caraga East Mindanao Region and the Autonomous Region in Muslim Mindanao. The step-ladder curriculum started by the U.P. School of Health Sciences in Palo, Leyte can be initiated and established in these two regions. Other public medical schools can also be converted into this step-ladder curriculum. The step-ladder curriculum recruits students from rural high schools. They are trained first to be village health workers for six months, then go on service leave in their places of origin. They return to get midwifery degrees for another year and then go again for service leaves. They can then return to get nursing degrees for another three years and return for service leaves after their licensure exams. In areas in need of physicians, nurses re-enrol to get a degree of doctor of medicine. The step-ladder curriculum has been evaluated internationally and nationally and has been found to be an effective educational strategy to fill up the need for health human resources need in underserved rural communities. For the private medical schools, a rethinking of the four-year baccalaureate degree requirement before entering medical school can be done and instead, can consider a requirement of two-year basic science education. This will decrease the cost of and increase access to medical education.

VII. Conclusions

The Philippines is a country of beauty, abounding in natural and human resources. However, since the two decades of the Marcos dictatorship, the country has been unable to maintain its economic, political, and social standing it had in the 1950's and 1960's. The country was the second biggest economy in Asia, second only to Japan, and the center of learning for many students and professionals from all Asian countries. Today it is a mixture of various crises: the fiscal and budget crisis, the population crisis, and a health human resources crisis.

To avert the health crisis arising out of the HHRD crisis, there is a need for solidarity with the importing countries of the North. However, such global and bilateral actions must be matched by national political will to institute the strategic solutions at the country level. The long-term and short-term solutions have been laid out. The situation is just waiting for political will and action.

Notes

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