



## Special Report: The Filipino Diaspora

# The Brain Drain Phenomenon and its Implications to Health\*

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### I. Introduction

**T**he 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 ethnolinguistic 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

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### 2.2 Basic Economic Data

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

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

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## 2.3 Vital Statistics

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

Source: <sup>a</sup> National Statistics Office, 2004; <sup>b</sup> National Demographic and Health Survey (NDHS), 2003

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## 2.4 Measurements of Access to Basic Health Services

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

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

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## 2.5 Health Financing Data

Health budget as a proportion of national budget	1.1% (2005) <sup>a</sup>
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: <sup>a</sup> Department of Budget and Management, 2004;

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### 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 HHRD.

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 entrepreneurship, 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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## References

- Adversario, P. (2003). Philippines Suffers from hemorrhage of nurses. (First of a series). *The Manila Times*. Retrieved August 6, 2004, from <http://www.manilatimes.net>.
- \_\_\_\_\_. (2003). Quality of nursing education deteriorating. (Second of a series). *The Manila Times*. Retrieved August 6, 2004, from <http://www.manilatimes.net>.
- \_\_\_\_\_. (2003). Confusing policies worsen outflow of nurses. (Conclusion). *The Manila Times*. Retrieved August 6, 2004, from <http://www.manilatimes.net>.
- Aiken, L., Buchan, J., Sochalski, J., et al. (2004). Trends in international nurse migration. *Health Affairs*. Vol. 23, Issue 3, pp. 69-77.
- Bach, S. (2003). International migration of health workers: Labour and social issues. (Working Paper No. 209) Geneva: International Labour Office.
- Buchan, J. (2002). International recruitment of nurses: United Kingdom case study. World Health Organization, International Council of Nurses and the Royal College of Nursing.
- Buchan, J., Parkin, T., and Sochalski, J. (2003). International nurse mobility Trends and policy implications. Geneva: World Health Organization.
- Council for Health and Development. (2003). Health care system: Swept by a new wave of migration. *Tambalan Newsletter*, pp. 1-2, 14.
- Cruz, B. (2004). Sapping Philippines' health care system: Hiring of nurses by US and UK saps Philippines' health care system. *Filipinas Magazine*. (Investigative Report). Retrieved on August 6, 2004 from <http://allnurses.com/forums/showthread.php?t=69825>.
- Galvez Tan, J. Z. (2002). The National Nursing Crisis: 7 Strategic Solutions. *The Manila Bulletin*, p. B8.
- Galvez Tan, J. Z. (2003). Strategic actions for global nurses' mobility. *The Manila Bulletin*. pp. 28.
- Garcia, R. Filipinos Packing Up 1 – It's the teacher's turn. (2003). (First of a series) in a Dose of My Own. Retrieved on August 6, 2004, from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.
- \_\_\_\_\_. Filipinos Packing Up 2 – Doctors bailing out. (2003) (Second of a series) in a Dose of My Own... Retrieved on August 6, 2004 from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.
- \_\_\_\_\_. Filipinos Packing Up 3 – Arthur's tale. (2003) (Third of a series) in a Dose of My Own... Retrieved on August 6, 2004 from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.

- \_\_\_\_\_. Filipinos Packing Up 4 – U.S. nursing shortage. (2003) (Fourth of a series) in a Dose of My Own...Retrieved on August 6, 2004 from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.
- \_\_\_\_\_. Filipinos Packing Up 5 – Nurses and recruiters. (2003) (Fifth of a series) in a Dose of My Own... Retrieved on August 6, 2004 from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.
- \_\_\_\_\_. (2003). Filipinos Packing Up 6 – Aries speak up (Sixth of a series) in a Dose of My Own... Retrieved on August 6, 2004 from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.
- \_\_\_\_\_. (2003). Filipinos Packing Up 7 – A price to pay. (Seventh of a series) in a Dose of My Own... Retrieved on August 6, 2004 from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.
- \_\_\_\_\_. Filipinos Packing Up Conclusion – The real war (and other views). (2003) (Last of 8 parts) in a Dose of My Own...Retrieved on August 6, 2004, from <http://www.wvsumedaa.com/rgarcia/adose65.shtml>.
- Mejia, A. et al. (1979). Physician and nurse migration: Analysis and policy implications. Geneva: World Health Organization.
- Pascual, H., Marcaida, R., and Salvador, V. (2003). Reasons why Filipino doctors take up Nursing: A critical social science perspective. Paper presented during the 1<sup>st</sup> PHSSA National Research Forum, Kimberly Hotel Manila, September 17, 2003. Philippine Health Social Science Association. Unpublished report.
- Ruiz, A. (2004). Why doctors become overseas nurses. *The Manila Times*\_(Opinion Section) Retrieved on August 6, 2004, from <http://www.manilatimes.net/national/2004/apr/28/yehey/opinion/20040428opi6.html>.
- Sanchez, F. (2004). Proliferation of medical schools. Paper presented during the National Academy of Science Roundtable Discussion. The Traders Hotel, Manila. August 12, 2004.
- Sanchez, F. and Batangan, D. (1995). Proposed National Health Human Resource Development (HHRD) Plan. Report submitted to the Health Human Resource Policy and Program Development Project, Department of Health. Manila.
- Sia, I., Lorenzo, F. M., et al. (1999). Public service reforms and their impact on health sector personnel in the Philippines. International Labour Office (ILO) and World Health Organization (WHO).



## Statistics and Data Sources

- Assessment Technologies Institute International. (2004). Statistics on CGFNS Certification Program (1977-2000) Demographic Data: Philippine Educated Applicants and NCLEX Foreign-Educated Applicants. June 29, 2004 (Personal communication).
- Association of Deans of Philippine Colleges of Nursing, Inc. (2004). Statistics on Nursing Schools/Colleges in the Philippines. July 2004.
- Association of the Philippine Medical Colleges (APMC). (2004). Statistics on medical schools, enrollment data, and internship and residency applicants. September 2004.
- Central Bank of the Philippines. (2004). Selected Philippine Economic Indicators. Manila: Department of Economic Research. June 2004.
- Commission on Filipinos Overseas (CFO). (2004). Statistics, 1988-2002. August 2004.
- Commission on Higher Education (CHED). (2004). Statistics, 2002. August 2004.
- Department of Budget and Management (DBM). (2004). Statistics 2004. September 2004.
- Department of Health (DOH). August 2004.
- Institute of Health Policy and Development Studies. (2004). Nurses Migration Statistics, 1992-2000. August 2004.
- National Statistics Office (NSO). (2004). QUICKSTAT. Databank and Information Services Division. February 2004.
- National Demographic and Health Survey (NDHS). (2004). 2003 Preliminary Report. Manila: National Statistics Office. January 2004.
- Philippine Overseas Employment Administration (POEA). (2004). Statistics 1992-2003. August 2004.
- Philippine Regulatory Commission (PRC). (2000). A Compilation of Statistics on the Performance of Schools in Various Licensure Examinations 1994-1998. Manila: Educational Statistical Task Force.
- \_\_\_\_\_. (2001). A Compilation of Statistics on the Performance of Schools in Various Licensure Examinations. Manila: Educational Statistical Task Force. 2001.
- \_\_\_\_\_. (2002). A Compilation of Statistics on the Performance of Schools in Various Licensure Examinations. Manila: Educational Statistical Task Force. 2002.
- Sanchez, Fernando, MD. Executive Director, Association of Philippine Medical Colleges (APMC). Personal Interview.