

## ISSUES ON HEALTH: POPULATION, NUTRITION, CHILDREN, PUBLIC HEALTH AND HEALTHCARE FINANCING\*

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### Introduction

There has been significant improvement in health globally, regionally, and locally. The improvement is reflected by a number of health indicators and statistics: life expectancy, burden of disease due to premature mortality and disability, increases in per capita consumption of food and clean water, and expanded health services coverage of the population. Much of these gains in health status occurred within the second half of the present century, some in spectacular fashion. For example, small pox has been wiped out with the last case reported in 1977. Within a twelve-year period of intensive vaccination, the mortality from this dreaded disease dropped from 1.5 to 2 million per year to nil. Life expectancy at birth in developing countries increased from 40 to 63 years and child mortality fell from 280 to 106 per 1000. This decline in child mortality accelerated within the past 30 years at 2, 3, and 5% per year in the 1960s, 1970s, and 1980s, respectively. Even in Sub-Saharan Africa, which posted the lowest improvement in life expectancy, the increase in life span was faster compared to Europe in the 19th century (World Development Report 1993).

In the Philippines, the Department of Health (DOH) states that the nation is healthier today than it was in the 1960s, citing life expectancy at birth which has risen from 56.9 years in 1960 to 62.6 in 1990, infant mortality rate which declined from 106.4/1000 livebirths in 1960 to 58.7 in 1990, increased energy intake of children, and greatly expanded coverage of the immunization program. Concerning the last, there is now a real possibility of eradicating poliomyelitis in this country. Despite these gains, the DOH is quick to point out that while health is generally better, it is not good enough (DOH 1993). One probable reason for the residual dissatisfaction is that the Philippines suffers in comparison to the achievements in health by countries in the region, some countries in Latin America and others elsewhere, which have comparable levels of socio-economic development.

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In the face of this improving health condition in the majority of the countries of the world, issues in health become more sharply focused because the quality, quantity, and rate of improvement are uneven and generally fall short of the optimum. Even in the Philippines, with its comparatively small land area, regional differences in health status are quite evident. There are at least two readily identifiable factors responsible for these differences in the Philippine situation: the delivery of health services and the fidelity of the estimates of coverage (Herrin 1994a).

There is a general feeling that the same resources, or minimal augmentation of the same, and efforts could have achieved better results had there been major shifts in government policy and priority. The 1993 World Development Report (WDR 1993) mentioned three of these, namely;

1. Fostering an economic environment that enables households to improve their own health. Examples: growth policies that ensure income gains for the poor and expanded investment in schooling, particularly for girls.
2. Preferential spending on cost-effective programs that do more to help the poor. Example: spending more for the control and treatment of infectious diseases and malnutrition rather than for specialized cases in tertiary facilities.
3. Promotion of greater diversity and completion in the financing and delivery of health services. Example: limiting government financing to public health and essential clinical services while leaving the coverage of remaining clinical services to private finance.

Therefore government policies in health and financing of health programs are important issues that cut across most other issues including those that will be dealt with in this paper. Happily, these are now the subjects of comprehensive studies being conducted by the DOH and other parties in collaboration with DOH.

There are issues in health which are quite pervasive. They remain intractable even in the face of economic affluence which is often looked at as the panacea for most if not all health problems. They are those which do not fall within the traditional areas of concern in health yet, constitute part of many of them. They have ethical overtones if not outright ethical issues. They can be deterministic of outcome apart from the resolution of a particular issue.

## ACCESS

Although this issue can be joined with equity, because one can give rise to the other or the absence of one can lead to lack of the other, there are situations where either is clearly a distinct issue. Access refers to the ability to secure, avail oneself of, utilize and enjoy, in time of need, health and health-related resources, facilities and services. These are its quantitative aspects. The qualitative aspect will not be considered. Access and non-access have consequences on the health status of the

population although it is not always easy to quantify these effects. For example, would there be a difference in the mortality figure and causes of death if all deaths occurred with medical attendance rather than with only less than half as it now stands in this country? Would and by how much would have the health profile of the 260 doctorless towns differed had they enjoyed the uninterrupted services of physicians?

In a study of the unmet need of Filipino couples for contraceptive services in 1986 (Zablan 1994), the expressed unmet need of couples ranged from 12.1 to 37.1 percent. It was estimated that had the National Family Planning Program fully satisfied this need it would have led to a contraceptive prevalence rate of from 57.5% to 82.5%. Based on the assumption adopted, the total fertility rate would have decreased from 4.36 in 1987 to 3.67 in 1993 had the contraceptive prevalence of 45.4% in 1986 increased to 56% by 1993 or 70% in 1998. This is a good example of how failure to access a health service can affect the outcome of a health program.

Food, that is, protein-energy and nutrient consumption, is an established determinant of many health outcomes. Unequal access to food, for whatever reason, will have inevitable health consequences on those who have access to less, especially growing children. Food supply among the different economic and geographic groups in the Philippine population are alarmingly unequal despite the adequacy of food supply. The total available food consumption in the country has been steadily increasing since 1973, the starting period selected by one study. Although the per capita increase is not as much as the average yearly increase (population increase effect), still, if food should trickle evenly to the population, the supply would be adequate to satisfy the recommended daily allowance per individual. Even during periods of low productivity as during extended drought, importation succeeded in ensuring adequate food supply (Salvosa-Loyala and Corpus 1991). Adequate food may not be accessible to many people probably due to a number of reasons like insufficient purchasing power but, the basic issue is still lack of access. This uneven access is largely responsible for the poor physical and mental growth and development of close to half of all public primary school children.

## **EQUITY**

Equity as a health issue and distinct from access refers to the amount of goods and services returned for a particular amount of contribution (money essentially) made. In an equitable system, the contribution to be made for the provision of a health service should be based on capacity to pay. In an inequitable system, those who contribute relatively less consume more. With that framework, inequitable systems can readily be identified in the Philippine health care system. For example, 70% of the budget of the DOH used to be spent on the hospital system which provides, secondary to tertiary specialty services. At any given time, only a very small proportion of the population is served by these hospitals for the simple reason that most people are not sick and the few who are sick are not all in need of hospitalization. Considering that the DOH budget is tax money, contributed

by everybody, the services bought by these funds benefit only a small portion of the contributors. Along the same observation, there is absolutely no justification for government subsidy of specialty hospitals (health palaces), especially those doing esoteric procedures like transplants.

Inequity is also characteristic of the health care financing in this country as pointed out by Professor Herrin (Herrin 1993). It is estimated that about half of the total health sector expenditure comes from direct payments by households to providers. Considering the income structure of the population, it is obvious that the majority of the population cannot avail themselves of health services. They therefore turn to government-provided health care wherein a marked geographic unevenness is characteristic. For example, Metro Manila residents can avail themselves of services offered by relatively good public general hospitals. Comparable facilities are not available in many regions of the country. Therefore, while everyone shoulders the financial support of the government hospital system through taxes, the services provided by these hospitals to the tax payers favor a particular group.

Another form of inequity is embedded in the health insurance systems both for social insurance (Medicare) and private health insurance like the Health Maintenance Organization (HMO). For social insurance for example, coverage is for those with jobs. Premium is paid through salary deduction on which is added employers' counterpart contribution. In practice there is no difference in coverage and premium between those receiving very high salaries and those with minimum wages. When the insurance privilege is used, the highly paid get the same benefits as the lowly paid and both get subsidies from the employers. Inequity creeps in when the unemployed or self-employed who are not covered by the system are unable to avail themselves of similar benefits. They not only do not enjoy insurance coverage but are deprived of subsidy as well.

Private health insurance, being profit-oriented, tends to discriminate in that prospective clients with probable chronic and expensive diseases are disqualified from insurance. Almost all private insurance also put a cap on coverage of catastrophic illness which is probably the single most important reason for getting insured in the first place.

Inequity is present not only in managed health systems but also in systems controlled by the market forces. The latter can have major impacts on health. For example, while food supply may be adequate as pointed by Salvosa-Loyola and Corpus (1991), this does not necessarily insure adequate consumption. This is readily shown by the comparison of rate of increase of available food and the rate of per capita consumption from 1973 to 1986. While the accompanying increase in the population during this period contributed to the comparatively lower rate of increase in per capita consumption, the ability to buy food as determined by the family income remained the major determinant of per capita consumption. The lack of increased demand for food from the poor was dictated by the low purchasing power of this group. In 1988 the average family spent 50.7% of its income on food. It is no

different now. The effect of low protein-energy and nutrient consumption on health has been amply documented elsewhere. The inequitous distribution of food results in the inequitous distribution of burden of illness. Poverty is the greatest inequity of all!

### **INEFFICIENCY**

A lot of expenditures in health is wasted. Government is not alone in this. The private sector too suffers from this malady. Nor is the Philippines the only country afflicted because the problem is global. Some instances of inefficiency are seen locally in hospital bed utilization, procurement of drugs, utilization of technology, high administrative cost, and absence of an essential clinical service package.

The ratio of hospital beds per 1000 population excluding beds in long-term care facilities and nursing homes from 1985 to 1990 is 1.3 (WDR 1993). This is not the highest ratio among South Asian and Pacific island countries, nevertheless utilization, that is, occupancy of these beds is low in many areas, particularly hospitals with bed capacities of 50 or less. Despite the glut, new hospitals, both private and public, continue to be built. In Lipa City in Batangas, for example, there are now about a dozen private hospitals.

Prior to the implementation of the National Drug Policy, procurement of drugs by the public sector was extremely inefficient because ineffective or non-essential drugs constitute the bulk of the purchase and the procurement system did not secure the lowest possible cost then available. Before the formulation of the National Drug Formulary, more than 12,000 drugs were registered for sale in the country with about 5,000 different active ingredients despite the existence of a WHO list of about 250 basic drugs that can take care of more than 90% of diseases requiring pharmacologic intervention. The prescribing patterns even in the private sector is characterized by inefficiency because of the extremely high share of ineffective and non-essential drugs exemplified by anti-cough and vitamin preparations.

High technology equipment continue to be acquired both by public and private hospitals without regard for their cost effectiveness and cost efficacy. For example, private hospitals in close proximity to each other acquire extremely sophisticated and expensive imaging equipments without regarding the financial viability of the acquisition on the basis of patronage. As a consequence, the diagnostic equipment is used despite the absence of a sound medical indication in order to generate the money needed to amortize the equipment. In public hospitals, expensive equipment are acquired without making provisions for maintenance. The result is that usual breakdowns accompanying normal use go unrepaired with the equipment retired prematurely. Two linear accelerators in a government hospital, for example, were hardly utilized because maintenance was very inadequate.

Operations of public hospitals and the social insurance systems are characterized by high input to administration and personnel services. The largest public general hospital spends 48% of its budget on personnel salaries and subsidies. While personnel services also go to patient care and therefore can be partly counted as

health care service, still, personnel management can be improved to promote efficiency. One of the many ways of doing this is by contracting services.

In private health insurance like the HMOs, inefficiency is inadvertently incorporated into the system. For example, reimbursement is allowed only when hospitalization occurs. This encourages admission to hospitals for what is essentially an outpatient problem. Likewise, HMOs fail to provide a clinical service package incorporating services that have been established to be cost-effective and cost beneficial. Too many cost ineffective and low cost benefit services are included in the reimbursement list, resulting in inefficient use of financial resources.

### **INAPPROPRIATE TECHNOLOGY**

Developing countries account for about US\$5 billion or 7%, of the \$71 billion spent each year on medical equipment worldwide. This global estimate includes medical and dental supplies, surgical instruments, electromedical and x-ray equipment, diagnostic tools, and implanted products. The ability of the medical equipment industry to develop new health care technologies has vastly exceeded the capacity of purchasers to evaluate the clinical value and the cost-effectiveness of such innovations. At present, approximately 6000 distinct types of medical devices (equipment, supplies and reagents) and more than 750,000 brands, models, and sizes produced by perhaps 12,000 manufacturers worldwide, are on the market (WDR 1993).

By definition, health technology refers "to the set of techniques, drugs, equipment, and procedures used by health care professionals in delivering medical care to individuals and the systems within which such care is delivered". Those that have been mentioned in the preceding paragraph therefore are but some of the components included in the definition of health technology.

Health practitioners, managers and policymakers are under pressure directly or indirectly to use these technologies. When they succumb, indiscriminate adoption and use of these technologies result in efficacy loss. Funds which can be more productively used for other purposes are diverted instead to acquiring technologies of dubious if not outright useless value. Physicians are particularly prone to succumb to the lure of unproved technology for reasons given by Grimes (1993):

- a) Seduction by authority – short of critical evidence-based assessment, technologies are adopted on the say so of "authorities." Example: blood letting.
- b) False idol of technology – worship of gadgetry, the use of which makes it easier for patients to part with their money. Example: electronic fetal monitoring.
- c) Tendency to let resting dogmas lie – because the technology has been in use for a long time, then it must be appropriate and effective. Example: routine episiotomy.

d) Pedantry in medical education – worship of scientific information many of which are useless. Example: use of purging as adjunct to autologous bone marrow transplantation.

e) Paradigm of clinical practice – practice of medicine based on the last unusual case encountered rather than the data from large well-studied cases. Example: radial keratotomy for refractive error.

Dr. Tessa Tan-Torres' paper on "Challenges of Technology Assessment in Health Care in a Developing Country" pointed out the need to develop and establish in Third World countries the capability and institution for health technology assessment. The evaluation of technology which should precede its adoption should include the perspectives of epidemiology, economics and social sciences. While she skirted the issue of regulation, it is obvious from the paper that behavior modification of technology users may be more susceptible to regulation than persuasion.

### **HEALTH CARE FINANCING**

Prof. Herrin (1993) tackled the issue on health care financing in the Philippines in a paper he presented in the 15th annual scientific meeting of the Academy last year. He summarized the basic issues under four questions. to wit:

- a) What health services are to be financed?
- b) Who should finance what health care services?
- c) How should health care services be financed?
- d) How much financing should the health sector receive relative to the other sectors of the economy (intersectoral resource allocation)?

The reader is referred to the paper for the discussion on each question. What remains as an issue in financing is the bottomline question, who should provide, what should be provided, how is it to be provided for those who are incapable of spending for their health needs?

The United States of America, the greatest economy on earth, is about to unveil the answer to these questions when it commits itself to provide for comprehensive health care to all its people including the 30 million who have no health insurance at all. While the complete program of the US government is not generally known, it is obvious that their government has accepted the responsibility of who should be responsible. In the case of the Philippines, beside the government, no institution is capable of taking responsibility either. In two pending bills, Senate Bill No. 1605 and House Bill No. 6976, the Philippine government through the legislature has assumed the responsibility of providing universal access to health care. However, as it now stands there is a fundamental difference between the two proposed legislations in terms of coverage. The Senate Bill provides for compulsory coverage of all permanent residents of the Philippines while the House Bill is not precise on coverage

except to identify the group covered namely, the formally employed, self-employed and all sectors as may be determined by the commission.

What should be provided is probably the most important issue because in the face of limited financial resources cost-benefit is paramount. Some of the issues associated with developing a cost-beneficial mix of health services are preventive versus curative, hospitals versus health centers, in-patient versus out-patient, "vulnerable group" versus everyone. Concomittant activities therefore should include cost-benefit studies of clinical care, public health measures, and technology. Measuring cost-effectiveness of health interventions may require developing new measures of health effects. Data gathering, monitoring and evaluation will become absolutely necessary while policy should be reflective of the verdict of data analysis and interpretation.

How the services will be provided has two components. One refers to the infrastructure facilities and organization that will deal with the actual provision of the services and the other concerns the raising of money to finance the enterprise. Regarding the provider of services, a mix of public and private providers is inevitable. Private here may include not only the organized professions but also non-profit, non-governmental and even community grassroots organizations. Raising the money to finance the services is currently under study by the experts.

Global spending on health totalled about US \$1,700 billion in 1990, or 8% of the global income. Of this, government spent more than \$100 billion or nearly 60% of the \$170 billion spent on health in the developing countries of Africa. Asia and Latin America governments spent half of the total amount – 2% of those regions' GNPs (WDR 1993). Herrin (1993) estimates that the Philippines' expenditure in health is around 2% of GNP and that its share of total health sector expenditures is about 40%. Developed economies generally spend 5% or more of their GNP on health. The persistent clamor in any discussion on health improvement is for more money allocation. In fact, the DOH's goal is from 3% in 1990 to 7% of the budget in 1998.

While higher spending for health (everything else being equal) results in better health, the improvement in certain health parameters are not due to increased spending only. China, for example spends less of its GNP on health compared with countries with similar development, but has a much longer additional life expectancy. The same is true for Singapore. Egypt and Gambia get poor health for a lower-than-predicted level of spending while the U.S. is a worse case, getting among the poorest achievements in life expectancy relative to GNP expenditure in health (WDR 1993).

In conclusion, providing everyone access to health services regardless of their ability to pay for such services will not necessarily result in better health, nor will increased spending in health achieve this automatically. Equally important considerations in health care financing is the policy and health package that insure maximum efficiency and efficacy in the expenditure of this money. More is not necessarily better.



In summary, issues on health can be particularized but there are issues, which because they are so pervasive and deterministic of outcome, are best treated in a generic manner. Among the generic issues are access, equity, efficiency and financing. What follow now are specific health issues.

## ISSUES ON POPULATION

The world has experienced and is experiencing a population boom. A "bust" cannot be far behind. Here are a few statistics indicative of the magnitude and rapidity of this population increase. In 1965, the world's population stood at 3.281 billion (B). In 1973, this increased to only 3.895 B. In 1991, there were 5.351 B people living on this planet. The current average annual growth is 1.6% which translates to roughly 90 million more people annually. At this level of growth, it is predicted that by the year 2030 the figure will be around 8.664 B representing a doubling of the population in less than half a century, a period well within the lifetime of many (WDR 1993).

Much of this increase in global population occurred in countries belonging to the low and middle economies which are located in Sub-Saharan Africa, Middle East and North Africa, East Asia and the Pacific, South Asia, Latin America, and the Carribean (WDR 1993). The Philippines belongs to these high growth regions. The Philippine population was estimated to be 61 million in 1990, a growth of 13 million in just 10 years. While the growth rate was declining from 3% annually in the 1950s to 1960s, 2.7% in the 1970s and 2.4% in the 1980s, the momentum of growth will ensure continued population growth up to the latter half of the 21st century regardless of sustained fertility decline. It is predicted that even if replacement fertility is reached in 2010, the population will reach zero growth rate only at around 2075 at which year the population is estimated at 127 million (Herrin 1994).

Population increase puts stresses on political and social institutions, natural and created resources, and quality of life as defined by health status, level of education, housing, leisure and mobility. Substantial studies are available defining population trend and its effects on these entities and because this paper is about population as an issue in health the subsequent discussion will be confined to the relationship between number of people and health.

Changes in population size, especially an increase, affect the health status of the members of the population in an indirect manner. For example, the average income per capita has been known to influence the health status of the population. To maintain the status quo in health therefore, any increase in population must be accompanied by a commensurate increase in income of the household because the increment in the size of the population is distributed among the households comprising the population. In a country like the Philippines where population growth outpaces economic progress, the average income per capita decreases in real terms as a consequence. An example of the repercussion of such a development is on the life expectancy. A doubling of income per capita from US\$1000 in 1990 corre-

sponds to a gain of eleven years in life expectancy! Across countries, more than 75% of the difference in health is associated with income difference.

The decline in average income per capita is particularly harsh on the poor who can not absorb the diminished purchasing power of the household without sacrificing basic needs. Again, in a country like the Philippines where half of the population is officially poor the effect of reduced income is bound to have major consequences as has been shown by studies on the trends in energy and nutrient intake in relation to changing economic conditions. Food consumption as well as energy and nutrient intake were generally improving or at least remained constant between 1978 to 1982. But between 1982 to 1987, with a worsening of the economic conditions, energy intake dropped from 1800k calories to 1750k calories representing a caloric gap of 11% to 13%. A corresponding increase of the proportion of households with per capita intake below the recommended levels to 69% from 67% also followed (Salvosa-Loyola and Corpus 1991).

Energy and nutrient malnutrition raise the risk of death and may reduce physical and mental capacity. In 1990, the combined effects of protein-energy malnutrition, and iron, iodine and Vitamin A deficiency were estimated to have cost in direct loss 46 million disability adjusted life years (DALYs), or 3.4% of the global burden of disease. Child deaths due to malnutrition-related diseases cost 231 million DALYs with at least 60 million of the 231 million DALYs attributable to malnutrition (WDR 1993).

Population increase also puts additional demands on social institutions like the school system. Failure to provide and acquire primary and secondary education have serious consequences on health. Households with more education enjoy better health for both adults and children. Female literacy especially, has demonstrable salutary effects on health. Better-educated women start families much later than uneducated women which then contributes to the reduction of risk to child health associated with early, especially teenage pregnancies. Educated women are more able to get and use health information. This is reflected by better domestic hygiene, which reduces the risk of infection, better food and more immunization, both of which reduce susceptibility to infection, and wiser use of medical services. A study of 13 African countries between 1975 and 1985 showed that a 10% increase in female literacy rate reduced child mortality by 10%, whereas changes in male literacy had little influence. A somewhat similar study in 25 developing countries indicated that, all else being equal, even 1 to 3 years of maternal schooling reduced child mortality by about 15% (WDR 1993).

Educated women also tend to get better paying jobs. Income in the hands of women in the home produces more health benefits for children than when the father controls the money and spending. This was shown in Brazil and Jamaica which in the latter's case resulted in more spending for nutritious food and child-centered goods. In Guatemala it takes 15 times more spending to achieve a given improvement in child nutrition when income is earned by the father than when it is earned by the mother (WDR 1993).

Adult health also benefits, from schooling. Evidence for better health consequent to better education is substantial. The underlying theory is that better educated people tend to make choices in life styles and health practices that are beneficial. Health benefits of good education can be reflected on life expectancy, death rates for specific diseases, new types of health risks, and readiness to change habits for the better. This assertion is supported by studies in the U.S., Cote d' Ivoire, Ghana, Pakistan, Peru, Jamaica, Russia, Brazil, United Kingdom Canada, and Norway (WDR 1993).

Indications of over population in the Philippines are many. It is quite evident in the land itself which they inhabit. Forest land has been encroached upon by 8.8 million persons whose growth rate is expected to result in the doubling of their number in 27 years. It is estimated that by 2025, upland population density will be about 339 persons/sq km compared to 96 persons/sq km in 1980. This encroachment on the forest will cause a steep fall of whatever remaining forest is left by unabatted logging to a mere 28% of total land area (Cruz 1994).

The proof that run-away population growth adversely affects health may come in a round about way; via lowering of household income, decline in access to primary and secondary schooling and depletion of natural resources but the relationship is certainly not TENUOUS.

Modulating population increase by putting a cap on fertility should certainly be a major issue if not THE issue in population. There is nothing in this statement that goes against what Professor Herrin said, quote, "viewed from the larger perspective of human resource development. the population issue encompasses a wide range of concern beyond population growth, fertility reduction, and family planning. These concerns include the health, nutrition and education of children; the welfare of national and international migrants, especially women; the viability of social institutions and their responsiveness to changing conditions; the welfare of specific population groups, including women in various economic settings, adolescents, the elderly, and the growing population in the uplands. Whatever action is designed and carried out to deal with these broader concerns, there will always be a need to constantly monitor population and human resource development activities to improve service delivery" (Herrin 1994a).

There is no disagreement that in a problem with multifactorial causes a comprehensive solution which addresses all the factors is ideal. This applies to the population problem as with other complex problems. But under a less than ideal situation, it is necessary to simplify the problem to identify which of the factors is of a fundamental nature such that its elimination can be expected to ameliorate if not eliminate the problem even if all the other factors remain unchanged. One or two analogies may add clarity to this statement. One analogy uses the science of cosmology: the origin and future of the universe may be established and predicted once the nature and behavior of elementary particles is completely understood. This is a reductionist approach to a complex problem which may be applicable in health. A much more appropriate analogy is hepatitis B. In this disease we know that spread can be

halted by many interventions among which are preventing crowding (poverty) and improving hygiene in the home, stopping number of behavioral and cultural practices, using disposable needles and syringes, screening blood for transfusion, minimizing or preferably eliminating promiscuity, commercial sex and drug abuse, and of course conducting mass vaccination against the infection. Of these options, mass vaccination is the most cost effective, cost beneficial and implementable. Its choice therefore does not ignore or minimize the importance of the other preventive measures except that in the real world, vaccination stands the best chance of controlling the disease given all the constraints.

In a similar way, the complex nature of the population problem and its control can be pragmatically narrowed down to fertility reduction as a first option target for implementation. Herrin supports this when he recommends that the government adopt an explicit fertility reduction objective that includes modifying the fertility preferences of couples by endorsing the social goal of a small family (Herrin 1994b). The overriding focus of the program on population should be on achieving a fertility rate as close to replacement fertility as possible.

Putting a cap on fertility is definitely easy. Eugene Linden in an essay on population (1994) said that the reason why the global effort to curb population growth failed is that the underlying assumptions turned out to be questionable at best, referring to "demographic transition" which states that people will have fewer children as their sense of well being increases. The opposite in fact happened as illustrated by a study in Kenya where total fertility rose from 7.4 live births per woman in the mid 1950s to 8.12 in the 1960s and 1970s even as infant mortality declined and income rose. Conversely in Nigeria, bad economic times in recent years caused young Yoruba families to turn to contraception even though infant mortality was rising. The failure to contain the population explosion globally and phenomena like the examples just cited seriously challenge the strategy recommended 20 years ago by the United Nations World Population Conference aimed at halting population explosion: attenuation of poverty, expansion of access to health and improvement of the status of women, all of whose objectives met with varying success in the majority of nations.

A vigorous program to push family planning aimed at reducing fertility to an agreed level is one strategy that may work because it is not dependent on the simultaneous solution of compounding factors as those operating in poverty alleviation. This strategy, however, is not as unequivocally stated in the current population policy as can be gleaned from the DOH position on the matter. The DOH's goal pertaining to population growth is a crude birth rate (per 1000 population) of from 28 in 1990 to 25.7 in 1998 and a total fertility rate from 3.58 in 1993 to 3.09. In explaining how this will be achieved, the DOH states, "as its contribution to population management, the DOH shall support the free and informed exercise of the rights of women and men to choose the size of their families and to practice family planning based on their own beliefs, religion and conscience. The DOH joins all couples, families and communities in respecting the spiritual value of human life as

these are expressed through the individual and social preferences in marriage, family formation and number and spacing of children. In a humane and gender-sensitive way, the DOH will provide all individuals with equal access to information, services and guidance in planning their families, whether through natural or artificial methods, as a means to attaining their health and well being. In making these provisions, enhancing women's health, ensuring safe motherhood and promoting child survival through birth spacing will be priorities" (DOH 1993).

This is a lot of soap for a statement of policy. It subscribes to the same assumptions of the recommended strategy of the UN World Population Conference 20 years ago, which abysmally failed. A policy crafted with the singular purpose of avoiding offending anyone and pleasing all is reduced to a wish statement whose fulfillment is left to fate. One wonders whether the average poor squatter couple ever engages in high level discussion on the merits, ethics and other profound implications of the choice of birth control techniques.

The policy on fertility control must be an advocacy statement which when implemented seeks to use birth control technology which has been adjudged by experts as effective, safe and easy to follow. Part of the policy implementation is to convince the married couple of the desirability of small families and to enable them to overcome all fears including those foisted by dogmas and creeds. Very recently the Roman Catholic Church's Pontifical Academy of Science publicly stated that couples should have no more than two children (Time 1994).

## ISSUES ON PUBLIC HEALTH

Professor F. Brockington (1968) defined public health as "the application of scientific and medical knowledge to the protection and improvement of the health of the group." Dr. Kerr White (1991) added, "public health programs therefore strike against health problems of entire population or population subgroups. Their objective is to prevent disease or injury and to provide information on self-cure and on the importance of seeking care."

The traditional areas of concern or responsibility of public health are: population-based health services, diet and nutrition, fertility, health education, epidemiology, sanitation, environment, industrial health and safety, health management and administration, and a few more. The scope can be anticipated to grow as the nature of public health itself changes. There is no doubt that great achievements in health were achieved through public health intervention, mass immunization, mass treatment of parasitic worm infestation, reduction of fertility, improved water supply, health standards in the work place, excellent surveillance and monitoring of diseases and many others but, an issue looms large in public health. The issue is more philosophic than programmatic, and will shortly be addressed.

The requisite expertise of a public health specialist is formally acquired in public health schools. In a country like the Philippines, as is true for most developing countries, public health issues dominate the health landscape. These issues

include uneven access to and inequity in health services, environmental pollution, inappropriate application of technology, inefficient health care delivery systems, galloping population, malnutrition, heavy burden of parasitic infestations, high prevalence of sexually transmitted diseases including AIDS, drug and substance abuse, high accident rate and poor conditions in the work place. It would seem logical that more attention should be given to the training and production of public health professionals. It would also be desirable for brighter and intellectually-gifted students desiring a career in the health professions to be attracted and shunted to public health. But neither is taking place.

It is unbelievable that there is only one school or college of Public Health in the entire Philippines, the one in the University of the Philippines Manila. For comparison, there are now about 30 colleges of medicine including putative medical schools and more than 180 nursing schools. There are certainly more than half a dozen dental schools and hundreds of midwifery units. The top students anywhere in this country who are planning to have careers as health practitioners will certainly go to medicine, even to physical therapy rather than public health. Those who go to public health are mostly preparing eventually to go to the other health profession courses. The graduate students who enroll in the School of Public Health are mostly from Departments or Ministries of Health, who are taking the various courses in public health for purposes of professional advancement or to get away for a while from their mother institutions. Though there are qualified, bright, intellectually above-average staff in public health units, the recruitment of desirable replacements from among the studentry is not as successful as in the other health professions.

In this country, as with most other countries, no meaningful working relationship exists between practicing physicians and public health professionals. This reflects the same situation between schools of public health and colleges of medicine. In fact the product of public health schools are disparagingly called sanitarians which is a big canard betraying a total lack of knowledge about what public health is all about. Nevermind if many of the best public health men are also physicians. This fractured relation is sometimes referred to as the "schism" with an obvious religious overtone for in fact the two groups of professionals have created separate priesthoods.

The schism was abetted by the formal entry of the Rockefeller Foundation in the support of schools of Public Health in 1946 separate from Schools of Medicine. It has, however, its roots toward the end of the 19th century when a cleavage between individual- and population-based approaches to health and disease developed, spurred by recent discoveries of causes of diseases, especially microbes (White 1991).

The schism was detrimental to both medicine and public health. To medicine it meant graduates and practitioners who are unable to conceptualize the idea of disease beyond the patient. This myopic orientation contributed heavily to the formulation of health policies that are cost-ineffective, inequitous and technol-

ogy dependent by many physicians who eventually become policymakers as they occupy top positions in ministries of health or legislative bodies. Typically, a physician thinks of curative approaches and hospitals in response to a disease problem, like setting up facilities to operate on patients with hepatosplenic schistosomiasis.

To public health it meant graduates and practitioners bereft of the art of thinking in terms of single human subjects instead of faceless population groups. They are also not prepared to appreciate nuances of ill health on a personal level.

The issue in public health has to be taken as an issue in clinical medicine. Both can start by agreeing that a health problem, like an illness, is a continuum from the afflicted person, to his family, to his community, to the whole population. The problem can not be successfully solved without breaking at different points in the continuum, as for example in the control of TB. What should be restored in medical teaching is a thorough familiarity and appreciation of epidemiology, evidence-based decision making and basic clinical economics. Physicians should know that the problems in the clinics are susceptible to the methodologies used by the public health people. A clinical procedure requires the same rigor of evidence-based evaluation before being adopted in the same way that a public intervention is subject to the same standard.

Thinking in terms of individuals and population should be incorporated in the medical curriculum. Unhappily, community exposure or immersion is literally just that in almost all colleges of medicine. The exposure is rarely used as an opportunity to understand the principles of epidemiology and teach public health principles. Rather it is treated as a curricular and licensure requirement that should be done away with as fast as possible.

To the public health practitioner, a healthy appreciation of the need to apply the rigors of clinical investigation in epidemiologic studies should be accepted. The clinician's requirement for proof of the existence of disease, its severity and response to treatment may be viewed as overcautious in population studies but these are essential to the accuracy of results.

In 1982, a global movement to close the gap and bridge the schism between clinical medicine and public health was begun. Called clinical epidemiology, it created out of practicing clinicians the capability to conduct epidemiologic studies, to utilize biostatistical methods and to be proficient in design, measurement and evaluation in clinical research. It also gave an option to acquire skills in clinical economics, the ability to cost clinical interventions and procedures and compute for cost-benefit and cost-efficiency. A social science perspective was added to the training of clinical epidemiologists to enable them to understand behavior. Funded initially by the Rockefeller Foundation, the movement has become a network of 27 participating units called Clinical Epidemiology Units (CEU) and 5 Clinical Epidemiology Resource and Training Centers (CERTC) in five continents.

The number one issue in public health is how much is it willing to co-opt medical schools with CEUs to achieve a favorable impact on the provision of an

effective and efficient system of health care which is appropriate for the health status of the population served by these medical schools, by:

- a) educating, within a clinical setting, physicians to use interventions proven to be efficacious;
- b) educating, within a clinical setting, physicians to establish arrangements for providing effective care efficiently; and
- c) encouraging (as a result of a & b) a more rational approach to the allocation of resources for medical care in relation to the health status of the population.

### ISSUES ON NUTRITION

Nutrition is the substrate upon which growth and development feed. It is a basic precondition for the maintenance of good health because of its role in the fight against disease. It remains to be a fundamental issue in health.

Apart from overt disease due to or abetted by malnutrition, profound effects on the physical and mental development of growing children, and the work capacity and performance of adults give rise to corollary problems that are difficult to quantify. How for example does one measure lost opportunity due to mental retardation or decreased productivity in the work place brought about by marginal or borderline nutritional status?

Multi-sourced data indicate malnutrition to be a major problem in this country. Using weight-for-age as the indicator for the state of nutrition of preschoolers, more than 60% of children surveyed were underweight. Of these, about 20% were moderately to severely underweight. The number has remained steady from 1982 to 1987 (Florencio 1994). Based on physical growth measurement, the Food and Nutrition Research Institute (FNRI) estimated that there were 17.2% and 17.7% moderately to severely undernourished children in 1982 and 1987, respectively. FNRI also estimated that there were 20.6% and 14% preschoolers with below normal height, and 9.5% and 15.7% severely wasted children in 1982 and 1987, respectively. For school children, Florencio (1985) found that 20.6% were moderately to severely underweight, 16.4% were underheight and 8.5% severely wasted. DOH estimated that from 1989 to 1990, more than 11% of all children were considered stunted (DOH 1993).

Adolescents and adults are not as well studied as children in terms of nutritional status except in relation to qualitative and specific dietary deficiencies. For example, Florencio (1980) and Valenzuela et al. (1979) found that adolescents had the lowest share of available food in proportion to their requirements with the household. The average nutrient intake of rural and urban elderly was estimated by Garcia (1979) and Florencio and Macatangay (1987) to provide only 70 to 80% of the recommended levels.

In terms of specific nutrition, Salvosa-Loyola and Corpus (1991) gave the following statistics: energy intake was maintained at over 1800 kcalories per capita



per day from 1978 to 1982 but dropped to 1750 kcalories in 1987, thus widening the gap during that period from 11% to 13%, with households consuming below recommended levels increasing from 65% to 69%; protein intake improved significantly from 1978 to 1982 but dropped in 1987; with the exception of niacin, the average per capita intake of vitamins and minerals have never reached the recommended levels; there is low bioavailability of iron in the Filipino diet; mean energy intake of farmers, female textile workers and female shoemakers were lower than their mean energy expenditures.

Iron deficiency anemia was estimated to be 37.6% in 1987 with 6- to 12-month-old infants, the elderly, pregnant and lactating females, and boys aged 7-12 years most affected (Salvosa-Loyola and Corpus 1994). A 1987 estimate placed the prevalence of anemia among pregnant and lactating women at 45.4% to 50.6% (Florencio 1994). Iodine deficiency is endemic in many regions of the country such that the prevalence of goiter among pregnant and lactating mothers is 3.3% to 7.4%. Vitamin A deficiency is also serious as shown by the presence of Vitamin A deficiency eye signs in 3.1% and low serum retinol levels in 4.1% of subjects surveyed.

Nevertheless, nutrition problems in the country are being addressed. The Philippine Food and Nutrition Program (PFNP) provides the mandate, political support, overall program design, manpower, strategies and mechanisms according to Florencio (1994). She said, however, that because of the complexity of the whole operation, inadequate resources, and what appears to be some degree of disjointedness in perception by all the sectors involved in the program, the mandate remains largely unaccomplished. The DOH for its part has embarked on specifically-targeted programs like the Vitamin A, iodine and iron supplementation programs. Without disparaging the efforts of these agencies, it is highly unlikely that the nutritional problems of this country will go away without decisive solutions to root out problems productive not only of malnutrition but of a whole lot of other problems impacting on health.

Probably the most basic solution to malnutrition is the attainment of food security which will assure adequate supply and universal access to food. Adequate food supply should ensure food availability, which means that food should trickle down to every household in the population. It means sufficient food production and equitable distribution. In a predominantly agricultural country food production may be more than adequate to meet the consumption of the population but if food produce are alternatively used to earn foreign exchange, availability will suffer. This is the situation in a number of food products produced by the farm and fishing industries. Adequate supply per se does not equate to adequate consumption. A food supply target of at least 25% above the recommended daily allowance for calories is necessary to accomplish the trickle down effect (Salvosa-Loyola and Corpus 1991).

Inextricably linked to food access is the purchasing power of the household. Poverty depresses effective demand for food. FNRI estimated that in 1987 the food threshold was P14.02 per capita per day. The food expenditures of a family

with 5.8 members would be at least P2,439 per month. Considering that the poverty line of around P5,000 per month includes close to one half of all Filipino households and considering further the unabated population increase occurring more among the poor, access to adequate food remains an unachievable objective without any form of subsidy or assistance to the poor. This was shown in 1973 to 1986 during which total available food for consumption rose from 12,564,716 metric tons to 21,516,850 metric tons, representing an average yearly increase of 5.5%. During the same period, the average annual per capita increase of consumption was only 1.6%, from 851.4 grams in 1973 to 1049.6 grams in 1986. The reasons given to explain the discrepancy were the population increase for the same period coupled with the static expenditure on food by the average household (Salvosa-Loyola and Corpus 1991).

There are other factors outside food security which affect the state of nutrition of the population even if to a lesser degree than poverty and rapid increase in population. Among these are education, prevalence of diseases, and geography.

Lack of specific knowledge due to poor or deficient education may magnify an already existing state of poor nutrition. In specific instances of this nature, nutritional knowledge rather than poverty may be more determinative. Usual examples cited are Vitamin A deficiency which can be corrected by eating Vitamin A-rich food which can be grown easily at low cost. In Indonesia for example, education of mothers on child feeding has reduced malnutrition at low cost. In Columbia, comparison of food supplementation as against maternal education showed that the latter has the same effect on children's height and weight as extra food. Breastfeeding is a classic example of education over mere increase in expenditure. Breastfeeding improves not only the child's health but also the mother's through the resulting better spacing of births, decreased risk of breast or ovarian cancer and less post partum blues. Promotion of breastfeeding in certain Philippine hospitals results in 8% savings on the budget. It is estimated that breast-milk substitutes cost around \$15 billion a year for the 120 million infants relying on mother's milk (WDR 1993).

Disease and malnutrition is the proverbial chicken and egg sequence. However, it has been established that for some diseases, the effect on nutritional status is a major determinant of morbidity. Parasitic worm infestation is one such disease. Of more than one billion people infected with one or more of these parasites, about one hundred million suffer from stunting or wasting. Following deworming, many of the infected children showed rapid spurts in height. While diarrhea has little effect on the growth of adequately-nourished children, those with low energy intake and diarrhea grow less. Malaria is a leading cause of malnutrition and anemia. Successful control of malaria results in the lowering of the prevalence of anemia (WDR 1993).

In an island nation like the Philippines, isolated pockets of population may suffer from the peculiarities of geography. Due to difficult access to these places,

food supply may from time to time dip, which results in decrease in consumption. Most of these regions can not also produce the quantity and variety of food needed for adequate nutrition.

Unfortunately for malnutrition, the only specific solution is to provide more food supplying the deficient calories and nutrients. Therefore, food security can not be substituted with alternative interventions no matter how effective they may be. On the other hand, for some diseases, infections for example, simpler and more feasible biotechnologic approaches may be substituted to the more difficult solution of alleviating poverty and other inimical socio-environmental factors. Taking poliomyelitis as an example, while sanitation, poverty, and crowding may contribute heavily to the high prevalence of the disease, immunization can be substituted to the more difficult process of ameliorating all these factors. The results are even better. The issue therefore of malnutrition will remain for sometime the issue of food security. One can not be vaccinated not to go hungry.

### ISSUES ON CHILD HEALTH

An overview of the health of the Filipino child by Santos-Ocampo et al. (1991) as part of a comprehensive state of the nation assessment by the University of the Philippines during the tenure of President Jose V. Abueva revealed the following:

- a) The crude birth rate in 1988 was 26.7 per 1000 population. The WDR 1993 estimate for 1990 was 29.2.
- b) The fetal death rates have declined from 12.7 per 1000 live births in 1960 to 6.2 in 1988. Neonatal mortality rates declined from 34.9 per 1000 live births in 1960 to 13 in 1988.
- c) The infant mortality rate has improved albeit slowly to 61 per 1000 live births in 1990 and is forecast to be 37.56 by the end of the century. DOH forecasts the rate at 18 by 1988.
- d) The under-5 mortality rate of 69 per 1000 live births in 1990 represents a 2.3% average annual reduction rate from 1980-1990. This figure is not as good as the 20 for Chile, 45 for Tunisia and 22 for Sri Lanka (WDR 1993). These countries' economies are close to the Philippines.
- e) The age group 10-19 years had the lowest mortality.

In essence, the Philippines has followed the general global trend. Enormous reductions in child mortality occurred globally between 1960 and 1990 in an accelerating fashion. In the 1960s, child mortality fell by approximately 2% a year in about 70 developing countries, and increased to more than 3% in the 1970s and to more than 5% in the 1980s. In 21 countries with a continuous series of acceptable estimates, child mortality fell by an average of 3% a year in the 1960s to 6% a year in the 1980s (WDR 1993). One principal reason for the improved mortality figure is the control of a number of communicable diseases. In the Philippines these would be acute respiratory infections and diarrheal diseases.

By most predictions these improvements in child mortality will continue into the future partly as a result of better coverage and expansion of primary immunization, better management of acute respiratory and diarrheal diseases, improved health of pregnant women, better nutrition and improved education, especially of women.

The issues in child health should now focus on the quality of life of children saved from early death with particular attention to their mental and psychosocial development, access to good education, job and career opportunities as they mature, and ultimately the quality of life as adults.

As has been discussed under issues on nutrition, children are among the hardest hit by malnutrition starting at a very early age. The per capita energy intake of children 6 months to 6 years in age was only 63.3% adequate in 1987. Since protein deficiency usually accompanies caloric deficiency, protein malnutrition can be expected to be high also. Include Vitamin A deficiency, iodine deficiency, iron-deficiency or anemia, and multiple intestinal parasitism and there is a certainty that mental development would have been irreversibly affected during the most critical years of birth to six years. It would be very helpful if some studies could be undertaken to quantify the effects of these adverse conditions on the mental performance say of grade schoolers. Paderanga's (1994) paper mentioned the dropping scores of grade school children on standardized tests since World War II which had not improved in the 70s and '80s although there was no specific reason cited for the phenomenon. Cortes and Lara (1974) also concluded that the achievement level of the elementary school-age population fell way below the target performance of 75% without indicating probable reason(s).

The participation rates of children in elementary schools were about 89% in 1970-1971, 95% in 1979-1980 and then fluctuating between 86% and 93% within the past 6 years. About 10% of school-age children were therefore out of school during this period. The average cohort survival rates during the same period (1970-1986), depending on the region, ranged from 48.2% to 87.4%. Drop out rates ranged from 1.9% to 5.6%, while rejection rates decreased to 1.3% by 1985. Graduation rate over a 15-year study period hovered at around 90% (Cortes and Lara 1994). If elementary and secondary education is an objective for all children, the data presented indicate shortcomings either in the provision or availment of this opportunity.

In secondary education there was a decline of those without schooling or with elementary education only or an increase in the percentage of those with secondary education. However, the effectiveness of secondary education measured in terms of achievement scores in the NCEE did not show a marked improvement over time (Cortes and Lara 1994). The proportion going to college is also increasing (Paderanga 1994).

The psychosocial development of children is just as important as their physical development. There are now major threats to children's psychosocial make up brought about by social phenomena that are in themselves serious assaults on the

integrity of society. Among these are child labor, prevalence of street children and child prostitution, drug and substance abuse and violence from armed conflict (Santos-Ocampo et al. 1991).

An estimated 7 million 5- to 14-year-olds are said to be employed in workplaces characterized by poor environments, long working hours, extremely low compensation and exploitative management. There are about 20,000-86,000 street children in the country, 50,000-70,000 of whom are in Metro Manila. Most of the estimated 20,000 child prostitutes come from these street children. It has been calculated that 120,000 children are displaced from their homes annually due to armed conflict amounting to about 4.5 million in 1986. Children also constitute a significant part of the casualties of war.

All these plus the large pool of unemployed, highly-skilled workers, with at least secondary education that can not be absorbed into the work force (Paderanga 1994) constitute issues arising from improved child health and survival. The question is survival for what?

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## **REACTION TO DR. ERNESTO O. DOMINGO'S PAPER**

**Mr. Antonio Abaya**  
Columnist, Philippine Star

Madam Chairwoman, officers of the National Academy of Science and Technology, distinguished guests and participants in this meeting, good morning and thank you for inviting me to take part here.

This is the third time I am joining the NAST in its annual meeting and I feel comfortable with the people who are involved in science and technology because although I am in the media – my academic background is in Chemistry, so we speak the same language. And one point of correction Madam Chair, I am no longer with the Manila Chronicle. I am with the Philippine Star.

Prof. Ernesto Domingo is to be congratulated for his very comprehensive paper on the issues on health, population, nutrition, children, public health and health care financing. This paper is really very comprehensive. It is 23 pages long, 23 typewritten, single-spaced pages. Not being a health professional, a nutritionist, a pediatrician, a public health official, or a health care packager, I do not feel I am competent enough to react to the bulk of Prof. Domingo' paper and after going through these 23 pages, I honestly wondered why I was invited to react to it in the first place. With your indulgence, I have decided not to try to react to the whole paper as I would have nothing to say for or against the many points raised by Prof. Domingo on issues that I have absolutely no expertise or interest in. Instead I have decided to focus on that part of his paper that dealt with population.

As a columnist, I have taken strong position on this population issue and I am prepared to join the debate. Prof. Domingo tells us that the world's population grew from 3.28 billion in 1965 to 3.89 billion in 1973 to 5.35 billion in 1991. Current growth rate is 1.6% or about 90 million more people every year. At this growth rate, it is predicted that world population will reach 8.66 billion in the year 2030 which means population will have doubled in less than 50 years. Much of this growth occurred in low and middle income countries in Sub-Sahara Africa to Middle East, North Africa, East Asia, the Pacific, South Asia, Latin America and the Carribeans and that includes the Philippines. Philippine population growth has declined from 3.0% in the 1950's to 2.7% in the 1970's to 2.4% in the 1980's. Presumably with the pro-active population

program of the Ramos government, that growth rate can be reduced to 2.0% per annum or even lower by the year 2000. But Prof. Domingo warns us that even if fertility rate is cut down to replacement level by the year 2010, population will reach zero growth rate only at around the year 2075 at which time our population will be 127 million. Needless to say, population increases puts stresses on food and water supply, on housing, on education, on energy, on natural resources and consequently the environment plus on leisure, transportation and everything else. In countries like the Philippines, where population growth often outpaces economic growth, the net result is a decline in average income with the harshest effect on the poor. This has the billiard ball effect on the nutrition and health conditions of the population, life expectancy, food supply and ultimately even on their productivity at the workplace. So population really has an effect on economic efficiency and therefore on economic growth. Prof. Domingo correctly sees in better-educated women the key to a better health environment and the way out of the problems caused by overpopulation:

1. Better-educated women start families much later than uneducated women.
2. Better-educated women are better able to get and use health information resulting in better hygiene and less risk of infection, and better food and more immunization.
3. In 13 African countries between 1975 and 1985, a survey showed that a 10% increase in female literacy reduced child mortality by 10%, whereas an increase in male literacy had little influence on alcohol intake.
4. Better-educated women are also able to get better paying jobs; income in the hands of women at home produces more health benefits for children than when the father is controlling the money (this speaks a lot about the usefulness of men).
5. Better-educated people, tend to make choices in lifestyle and health practices that are beneficial, including a readiness to change habits for the better. I suppose this means that better educated people tend to limit the size of their families out of their own volition without anybody telling them to do so.

Prof. Domingo says that modulation of population increase by putting a cap on fertility should be a major issue and I agree with him 100%. But he correctly warns that the population problem is more complex than it is made to appear and that some of the underlying assumptions sometimes turn out to be questionable. For example, he gives us the fertility rate in Kenya which rose as standards of living rose from 7.4 live births per woman in the 1950's to 8.12 in the 1960's and the 1970's. Thus, it belied the assumption that families reduce their number of children as their standard of living goes up. Similarly, Prof.

Domingo writes that in Nigeria when the economic condition went sour, families turned to contraceptives. But these are probably exceptions that prove the rule. In fact, Prof. Domingo admits that the strategies recommended by the U.N. World Population Conference 20 years ago which involved the attenuation of poverty, the expansion of access to health and the improvement in the status of women all met with success in the majority of nations. So some nations succeeded, others did not. Prof. Domingo criticizes the DOH for being equivocal in its population policy. He says that a vigorous program to push family planning aimed at reducing fertility should be pursued. He says that the DOH policy is "a lot of soap" and "a policy crafted with a singular purpose of avoiding offending anyone and pleasing all is reduced to a wish statement whose fulfillment is left to fate." I can appreciate Prof. Domingo's impatience with DOH policy because I too am in favor of a more vigorous campaign to reduce fertility but, on the other hand, the issue has become highly politicized because of the objection of the Philippine Roman Catholic Church. Being a Protestant, Pres. Ramos understandably has to walk a narrow path carefully unless his religion is used against him in which case the modest success that he has achieved or can achieve will be negated as the battle line becomes drawn along religious lines which we do not want to happen. What I mean is that if you take a very strong position and deliberately antagonize the Roman Catholic hierarchy it may come to pass that even Catholics who are in favor of population control may be drawn to the other side because the debate may become drawn along religious lines which we do not want to happen.

In my opinion, the Ramos position (as articulated by the DOH) of making information available on various methods of family planning and letting couples decide for themselves which methods to use is reasonable and pragmatic given the vocal and bitter opposition of the Roman Catholic Church to even this moderate approach. What is probably lacking is the concerted effort to promote:

1. The idea of a small family as the socially accepted norm.
2. The ideal of the better educated woman as the preferred Filipina. A media blitz to sell these two concepts in advertising, in movies, on television would condition couples to choose the most effective means of family planning without putting the Ramos government on a collision course with the Roman Catholic church. So I think that the efforts should come from the private groups to sell the idea of a small family and the better educated woman through radio, through T.V., through movies, but hopefully without using Lolit, Ruffa and Nanette, maybe Gretchen Baretto. In the medium and long term, I can see the Church, the Roman Catholic Church changing its position on contraceptives as it had changed its position to other moral issues in the past. Perhaps, just perhaps, the next Pope will be more open on this issue in which case the conservative position of the

Philippine church will be undermined and become irrelevant. In the meantime, let us worry about how we are going to feed, clothe, educate and find jobs for 127 million Filipinos by the year 2075. Thank you and good day.

**"REACTION TO THE PAPER OF DR. ERNESTO DOMINGO  
ON ISSUES ON POPULATION, NUTRITION, CHILDREN,  
PUBLIC HEALTH AND HEALTH CARE FINANCING"\***

Dr. Thelma Navarrete-Clemente  
*President, Philippine Hospital Association*

Good morning friends, distinguished guests, ladies and gentlemen, magandang umaga.

First permit me to congratulate the prestigious National Academy of Science and Technology on its 16th Annual Scientific Meeting:

its organizing committee of the well-planned program of activities;

the recipients of the various awards;

the Outstanding published papers,

the Outstanding Publication;

the Outstanding Young Scientists;

the NAST-TWAS-Science Prize;

to the well-known panel of speakers panelists academicians and consultants whose contributions to the growth and development of science and technology is quite evident in our country today to power us to arriving at the Philippines by the year 2000; and foremost

to a multi-awarded personality, Dr. Perla Dizon Santos-Ocampo, pediatrician, on her investiture as a new academician this morning.

Congratulations to Academician Dr. Ernesto O. Domingo for his well-prepared comprehensive, timely and relevant paper on the Issues on Population Nutrition, Children, Public Health and Health Care Financing.

Indeed I am thankful for this job. However, I consider it an opportunity to use the meager resources and capabilities of the Philippine Hospital Association (PHA) to help the government, particularly the DOH, to plan and implement programs that will improve the status of health. Certain facts should be stressed before we start with our reaction.

I shall not say I am sorry if I cannot react to all the issues mentioned in his paper as to do so will mean I have to talk until this evening.

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\*Reaction paper delivered during the 16th Annual Scientific Meeting of the National Academy of Science and Technology, Philippine International Convention Center, Manila on July 13-14, 1994.

Let me concentrate on a very vital health institution as my belief is that this institution can handle all the issues in health, if only given the chance and the needed support.

As you well know, the Philippines is a developing country in Asia bordering the Pacific ocean composed of 100 islands with big bodies of water separating them. There are also mountain ranges in between towns or provinces and the absence of good roads to the remote rural areas. There are many very small islands with very few or no inhabitants and without a doctor nor a clinic. These make access difficult. Tyranny of geography is the form we apply to those constraints of the area. No electricity, increased population.

There are 15 geographic regions including the Cordillera Autonomous Region (CAR), the National Capital Region (NCR) and the Autonomous Region of Muslim Mindanao (ARMM). Our 1990 census showed a population of 61 million and an estimated gross density of 203 inhabitants per square kilometer. The population grew 23% on the average during the past decade due to the failure to reduce fertility. This growth rate is the highest in the Southeast and East Asian region. With this growth rate, the country is expected to have a population of 78 million plus in the year 2000 or an increase of 29% over its present population. Only 1.6 to 2% of our gross national product is allocated for health unlike the U.S. that allocated 13-15% of its GNP yet more than a million Americans do not have any medical insurance.

While there have been significant improvements in health globally, regionally and locally, the Philippines is still quite behind its neighboring countries. This is true not only for health but also for its socio-economic development.

Dr. Domingo questioned the public money being spent for speciality hospitals (health palaces) where esoteric procedures like transplants are being done and which benefits only a few people.

The Philippine Hospital Association has more than 1800 member hospitals, both government and private. This includes 50 public hospitals (DOH - 45 only and LGUs - 550) and 209 private hospitals with an authorized bed capacity of about 100,000 or on the average of 1 to 600 + of the population. The ideal ratio as stated by WHO is 1 bed to 500 of the population. These are of three categories: the primary of 21 beds or less; the secondary of 25 beds or less than 100; and the tertiary provincial regional medical centers. As stated before, peculiar geographic situation has placed health recipients at a disadvantage. Where health care is not available nor accessible in certain areas there is, however, a superconcentration of health manpower and technology in the NCR and other cities.

We believe that the hospital sector has much to do with all of these current issues.

For us in the hospital industry, if you want to call it that way, there is a nagging question. Are hospitals needed in our health care system? The 1986 constitution has mandated that the DOH have a vital role in health care and its vision should be the recognition of health as a basic human right. As a right,

people may have demand for it and services should be available to all people at affordable costs.

With the implementation of the Local Government Code more than two years ago, the lawmakers certainly wanted a pro-people law – people empowerment. Local Government Unit officials are not health oriented, thus this led to the deterioration of health care, poor quality service, limited supply of medicine and the demoralization of the health care workers.

The A's requirements of good health care systems are:

**Available, Accessible, Affordable, Adequate**

We in the private sector are fully cooperative with the DOH's efforts to attain its mission and vision yet most of the time we feel we are being pushed against the wall by some oppressive laws from Congress, such as:

1. NO DEPOSIT LAW – How can we exist without money? We worked hard to define at Congress emergency situations that are life threatening and certainly no deposit is required for such cases.
2. MOTHER & BABY FRIENDLY HOSPITAL LAW – requires hospitals to provide rooming in and breastfeeding services for mothers. If we cannot do this up the end of 1995, then we may not be given our license for 1996.
3. EMERGENCY SERVICES – for free
4. ILLEGAL DETENTION – Penal Code penalizes hospitals guilty of this. This pertains to the rights of patients to enter the hospital, choose the doctor, give his consent to any proposed procedures and leave even without settling his bills.
5. SENIOR CITIZENS LAW – While this was meant for public government hospitals, yet the demand for such is usually at the private sector.
6. VAT ON MEDICINES – for the last 5 years, we have been requesting in Congress for the removal of this. We can never lower the cost of health care when prices of medicine are increased every quarter.
7. LGU'S mayors permit, business tax – 3/4 of 1% on the gross, not even considering that hospitals are not profit centers and that we have a lot of PNs and bad debts.
8. 35% straight on income tax as against the 10% of income tax for private education etc.

In short, there is no protection for private hospitals, and maybe the government does not appreciate or need the services of the private hospitals to carry out the health care of our people.

1. The most important point to consider is the present role of modern hospitals, that is, the provision of:

- a. *preventive*, promotive, diagnostic, curative, and rehabilitative services;
- b. teaching, training of health manpower;
- c. research; and
- d. community services.

In our first role, we have been not only **centers of excellence**, but **centers of wellness** as well. We have cooperated with the following programs of the DOH: Expanded Program Immunization (EPI) of the six immunizable diseases; as "patak" centers against polio: AIDS awareness campaign; established volunteer blood donors directory; "sagip mata" movement; cancer screening; "alay puso," etc.

2. All clinical departments in tertiary medical centers have teaching and training programs accredited with the corresponding speciality societies. Private hospitals do this inspite of its high cost and the institutions' limited or scanty resources. The worst part of the game is the intrigue shown by a group or association of doctors who declared that residents, even in teaching training hospitals should have employer-employee relations and be subjected to minimum wages eight hours work, extra time, overtime, security of tenure and all other fringe benefits. The idea of these godfather associations is that training hospitals are exploiting the residents and that they should be allowed to unionize.
3. **Research** is very limited in the Philippines especially so in the private setting but we have made the preparation of scientific papers as part of our requirements before the assignment to the next higher grade or graduation from their Post Graduate Intern (PGI).

Incidentally, through the years, we have acquired certain proprietary data which may be very useful for the CMC at least.

4. Our fourth and biggest role is in our community projects. Gone are the days when hospitals are the white elephants or the ivory towers that people just look up to. We have adopted a concept of hospitals without walls so we can reach out to our community. Philippine hospitals have been requested to "adopt a barangay or barangays" so they can relate with the community.

### **STEPS TO BE TAKEN TO ADDRESS THE ISSUES**

1. At present, we have about 44,000 barangays with their own chairmen and kagawads. These can make the hospital the core of the primary health care system and be a part of our massive and continuing Information, Education and Communication (IEC) campaign.

As far as the community is concerned, the massive media information, education and communication campaign has emphasized Public Health Issues. Aside from this we train and teach them about;



- Hygiene (personal) and Sanitation (environmental);
- Health Education;
- Deworming, responsible parenthood, family planning, maternal and child care;
- Potable water system;
- Proper waste disposal;
- No smoking campaign;
- Tree Planting, etc.
- Proper Nutrition (diets), cooking, menu planning, therapeutic diets, etc. In some countries we have even meals on wheels for most disabled senior citizens who cannot move around. Hospitals have also participated in giving hot meals once or twice a week with the volunteers like some church groups.
- Track gardening (backyard fishing) to augment the family's food supply/income;
- Revival of Filipino values, and
- Pamilyang uliran "Towards a National Culture of Excellence".

The PHA has organized on-going seminars, workshops on hospital administration for the 14 regions so by improving their financial viability the hospitals may be able to render cost-effective, quality patient care without suffering from financial distress or from bankruptcy.

## 2. Primary Health Care Concept of Alma Ata - 1978

"Health Care for All by the Year 2000" was adopted by the government. This is not new in the health care vocabulary. As early as 1978, our government subscribed to the Alma Ata concept of Health.

## 3. Medicare Program

- a. Medicare Phase I (Hospital oriented) – This pertains to the first phase of the PMCC plan through the Medicare under Republic Act 6111 as amended for compulsory coverage of all the employed sector and is administered by the GSIS for 5 million government members and dependents and about 23 million private sector members and dependents. Ideally, PMCC desired a 70% support value but with inflation, etc., the present support value is about 30-35% only. The self-employed, like jeepney drivers, store owners can be members.
- b. Equal SSS-GSIS Benefits – Due to financial constraints, 70-75% of the population is considered medically indigent; hence, government must provide for this. Four years ago, the government appropriated P300 to 600 million from the savings of other departments of government to equalize the benefits being given to the government employees and to those employed in the pri-

We are studying alternative health care financing schemes from Korea which may be more suitable for our country

Government financing institutions, such as DBP, SSS, Land Bank, PNB are giving soft loans payable in 20 years or more at low (15%) interest rates unlike private banks which have interest rates of 20-24% payable in 3 to 5 years.

3. Multilateral and bilateral agreements such as USAID, and Japan International Cooperative Agency (JICA) have provided additional inputs in developing the health care system through loans, aid grants and technical support. Foreign assistance coming from Germany, Canada, Australia, Sweden, United Kingdom and other countries have helped in the above work.
4. Proper mix of preventive and curative services. Efficiency in health utilization is achieved when individuals with real health needs seek care and are able to obtain the needed care from the appropriate health care facilities. Since prevention is less expensive than cure, then government should allocate a bigger portion of its budget for these services.
5. Efficiency and equity in the private sector. The notion that the private sector may be more efficient although it may not be more equitable than the public sector rests on the assumption that the private sector operates under the conditions of "perfectly competitive markets."

## A PUBLIC FINANCE APPROACH TO GOVERNMENT ACTIVITIES IN HEALTH

### (Category 1)

#### Public Health Activities

Belongs to the government as public health activities do not generate any income, then the private sector does not have any motivation/incentive for the private sector

Epidemiological data collection  
Health system planning, Health education  
Regulation, Licensing, Environmental health  
Prevention of communicable diseases  
Decreasing cost of utilities (water, sanitation)

### (Category 2)

#### Mixed Public/Private Activities

Public & Private cooperate with each other. Sharing of expertise and technology linkages, Trisectoral Referral System  
These are activities done by both the private and the public sector

Targeted Health Problems such as

\*Family Planning

\*Maternal/Child health

\*Infant nutrition

\*Immunization

Treatment of Communicable Diseases

### (Category 3)

#### Private Activities

Trends in Health Care Marketing of Health Services in Hospitals.  
Hospitals as Centers of Wellness not only of Excellence –  
Preventive, Ambulatory Care, Total Quality Management in Health Care,  
Re-engineering of Systems, Cost Containment. Cost effectiveness.  
Services almost exclusively done by the private sector.  
The people who are truly indigent should be treated in government hospitals in the most cost effective way to spend the people's money.

Acute care

\*inpatient

\*outpatient

Laboratory services

Hospital hotel services

## CONCLUSION

Let me quote from Paine and Siem Tjam in the book- *Hospitals and the Health Care Revolution*:

"An understanding of the principal health problems of individuals, and hence of communities, should be the basis of all health care. Analysis of these problems, of what can be done about them with the knowledge and resources available enables decisions to be made about priorities and programs."

An essential precondition to successful primary health care is a supportive political climate in which health is viewed as part of total human development and the right of every individual, specially the children.

Over the past 20 years, many people have begun to question the relevance and effectiveness of national health systems in both developing and industrialized countries. In particular, there is a growing awareness that health workers other than physicians are able to provide care, that hospitals employing sophisticated technology are not the only places where care can be delivered, and that the medical model is not the only possible foundation for a national health system. Exploration of alternative approaches to health care has led to a revolutionary process of change aimed at the protection and promotion of health and formalized in WHO's Global Strategy of Health for All by the year 2000. This strategy emphasizes the principles of primary health care as the foundation for a new approach in which medical technology and hospitals, rather than serving a minority of sick people, accept a new responsibility, that of participating in the development of a total health system capable of meeting the needs of the whole population. The resulting radical and sometimes unsettling changes are now affecting hospitals all over the world.

The dictionary tells us that a revolution is a great upheaval or a complete change in, for example, outlook, social habits or circumstances. The health care revolution, as we understand it, is a great change of the more gradual kind. At its simplest, the health care revolution, as we implied in the previous paragraph, is an attempt to integrate hospitals into a new style of health care system centered on primary health care.

More expansively, it could be described as an international crusade founded on the principle that health is a basic human entitlement, to which all should have equal access and an equal right, irrespective of nationality, residence, wealth or social position; for the achievement and maintenance of which all should take some responsibility, in relation to themselves and to others; and in the pursuit of which everyone must be concerned – with doctors and other professional health workers playing a major and essential role, but not necessarily the predominant one.

**Maraming Salamat po Mabuhay Tayong Lahat!**

*Reference: Monograph No. 1*

*Hospitals and the Health Care Revolution by Paine and Siem Tjam*



**ISSUES ON POPULATION, NUTRITION, PUBLIC HEALTH  
AND HEALTH CARE FINANCING  
VETERINARY PUBLIC HEALTH**

Dr. Teodulo M. Topacio, Jr.

*President, Philippine Society of Veterinary Public Health*

I am a veterinarian by profession and perhaps you might be wondering what I am doing here giving remarks on public health. But I would like to inform you that the veterinary profession is very much involved in public health. By and large the public, and even other professions, do not realize that the veterinarian, although he/she deals with animal health and production, is also involved in protecting the health of the public. For your information, there are, as of the latest count, 176 diseases of animals transmissible and common to man. To cite a few examples: rabies, anthrax, leptospirosis, brucellosis, salmonellosis, colibacillosis, swine erysipelas, tuberculosis, and internal parasites like, tapeworms, roundworms and flukes. So important are these diseases to human health that a German physician by the name of Dr. Rudolf Virchow gave the name *zoonoses* to this group. However, zoonoses is only one aspect of the veterinary profession that is geared to the protection of human health. There are other areas of veterinary medicine wherein the responsibility of the veterinarian is to complement the role of the physician in the protection of the health of individuals.

This role of the veterinarian has become so important that it created a new speciality in the practice of veterinary medicine called: "veterinary public health". This specialty was the creation of veterinary experts of the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) of the United Nations. They defined veterinary public health as: "a component of public health activities devoted to the application of professional veterinary skills, knowledge and resources to the protection and improvement of human health." The term veterinary public health was first officially used in 1946 during the meeting which gave charter to the World Health Organization.

As previously mentioned and defined, zoonoses is only one aspect of veterinary public health where the veterinarian is involved. Zoonoses is probably the most visible function of the veterinarian in protecting human health. There are other areas of veterinary public health which is just as equally important. Food protection is an area of this specialty wherein the veterinarian carries a

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\*Reaction paper delivered during the 16th Annual Scientific Meeting of the National Academy of Science and Technology, Philippine International Convention Center, Manila on July 13-14, 1994.

heavy responsibility. All of you are aware that food animals are the important sources of protein that a person must partake in order to maintain good health. The meat of these animals must be safe for human consumption. It must come from healthy and not diseased animals which may harbor zoonotic diseases. Veterinarians, by virtue of their professional training, can recognize these diseased animals including the meat through ante-mortem and post-mortem inspection and thereby condemn them as unfit for human consumption. Some of these diseases like anthrax, TB or salmonellosis can be deadly to man. The maintenance of the sanitary conditions wherein the animals are slaughtered, i.e., abattoirs, the meat processing plants are likewise the responsibility of the veterinarian. Comparative medicine, as the term implies, is the use of laboratory animals in studying the effects of drugs and harmful microorganisms and then applying these reactions in humans, the objective of which is to find a cure for human diseases. For this purpose, the production of laboratory animals, e.g. rabbits, guinea pigs, mice, rats, dogs, cats, etc., is an important responsibility of the veterinarian in public health. The upsurge in the occurrence of mental diseases and related neurological disturbances in man have been alleviated by the use of animals as companions or pets that even assist the blind as "seeing eye dogs". Protection of the environment from farm wastes and poisonous chemicals, e.g., pesticides, is in the domain of the veterinarian. Our country is noted for disasters, natural and man-made (trees, floods, typhoons, earthquakes, volcanic eruptions). During these occurrences, the veterinarian must see to it that the food animals are fit for human consumption.

These are, in brief, the responsibilities of the veterinarian in protecting and maintaining public health.

## Rapporteur's Report

### PLENARY SESSION I

#### "Issues on Health: Population, Nutrition, Children, Public Health and Healthcare Financing"

**Speaker** : Dr. Ernesto O. Domingo  
**Panelists** : Mr. Antonio C. Abaya  
Dr. Thelma Navarrete-Clemente  
Dr. Teodulo M. Topacio, Jr.  
**Moderator** : Academician Gelia T. Castillo  
**Rapporteur** : Academician Quintin L. Kintanar

### SUMMARY

There has been significant improvement in health regionally and globally.

#### Major Issues Discussed:

1. Access  
Failure of everyone to avail themselves of health services, resources and facilities despite adequacy of the same, for example
  - \* non-access to food and contraceptives
2. Equity  
Failure to return to contributors goods commensurate with their contribution. Examples:
  - \* 70% of the budget of DOH is spent on the hospital system but more of the population's need is services outside the hospital
  - \* Private and Public insurance are inequitous and cover only hospital services.
3. Inefficiency
  - \* e.g. underutilization of hospital beds and procurement of inessential drugs
4. Inappropriate technology: adoption of technology of unproved efficacy and low-cost benefit
  - \* many standard healthcare services are not necessary and are useless
5. Healthcare Financing
  - \* more health spending does not necessarily result in better health
6. Population
  - \* population increase puts stresses on political and social institutions, natural and created resources and quality of life
  - \* strategy to putting a cap on population explosion has not been successful but has met with varying success
  - \* equivalent of vaccines for infections is contraceptives for population control
  - \* advocacy is needed to limiting fertility by contraceptives



7. Nutrition i.e., adequate supply and universal access is the solution to malnutrition.
8. Children's Health – The issues are nutrition, mental and psychosocial development, access to education and quality of life as adults;
9. Public Health

The issue is the schism between the public health and clinical medicine. The solution is to bring back public health philosophy into clinical medicine and for public health to be enriched by clinical medicine.

Clinical epidemiology is the bridge to heal the schism.

#### **PANELIST: Dr. Thelma Navarette-Clemente**

- \* Only 1.5 – 2% of GNP is spent for health services
- \* There are 603 public hospitals and 1,200 private hospitals with 100,000 beds. The WHO standard is one bed per 500 population
- \* Local government code and devolution has led to deterioration of healthcare
- \* Hospitals will find it difficult to meet the requirements of the Mother and Baby Friendly Hospital Law
- \* She stressed the problems of private hospitals to cope with taxes, labor laws, etc.

#### **ADDITIONAL INFORMATION**

Three categories of Health Care Systems:

1. Public Health activities – belong to government
2. Targeted health problem – government and private sharing
3. Acute care for in-patient and out-patient – private mainly

Dr. Topacio cited the example of rabies as a disease of animals transmissible to man falling under Veterinary Public Health.

#### **RECOMMENDATIONS**

1. Forty-four (44) thousand barangays can make the hospital the core of the health care system especially through IEC
2. Community outreach activities
3. Improve financial status of the hospitals
4. Medicare Phase I & II Implementation on
  - 5 million – government members
  - 23 million – SSS members
  - 28 million