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RURAL POVERTY – HEALTH AND LIFESTYLE

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Summary

1. Chronic diseases, including diseases of the heart and blood vessels, have been shown over the past decades to be among the most common causes of disability and death in most countries world-wide. It is predicted that by the year 2020, as part of a phenomenon labeled as epidemiological translation, cardiovascular diseases will be a more frequent cause of disability adjusted life years, than infectious and parasitic diseases, in all sub-regions of the world with the exception of Sub-Sahara Africa. This process of health transition, is taking place at different rates at the community, national, regional, and global levels with several phases occurring simultaneously, particularly within Latin America and the Caribbean where an epidemiological mosaic exists comprised of a wide range of diseases and health problems.

2. The significantly emerging group of chronic diseases, including heart disease, share common predisposing harmful risk factors many of which have their genesis in unhealthy lifestyles or behaviors, of which the most important are cigarette smoking, unhealthy diets, physical inactivity, and a range of emotional stressors, at work, at home or in society. Chronic diseases adversely affect the sense of well being and happiness of individuals, reduce productivity of communities, and impede national wealth creation. It is for these, and many other reasons, that it is necessary to seek ways to prevent, and or reduce, the epidemic of the chronic diseases. The tackling of these problems requires the application of the functions of public health as these relate to heart health and behavior modification among the rural poor of Latin America and the Caribbean, and include health assessment, health protection, surveillance, and health promotion to prevent chronic diseases.

Introduction

3. According to WHO estimates, in 2002, 16.7 million people around the globe die of cardiovascular diseases each year. This is about one-third of all deaths globally.[1] This group of diseases is the leading cause of death in 31 of 35 countries reporting death statistics. Heart disease and stroke account for 35-55% of all deaths in Latin America and the Caribbean with some 800,000 deaths annually.

4. Rheumatic heart disease and Chagas heart disease are recognized as on-going forms of heart disease in certain restricted areas in some countries of the sub-region. These will not be discussed in this presentation which focuses on the present epidemic of coronary artery disease.

5. It has been projected that by the year 2020 cardiovascular diseases will cause 3 times more death and disability in Latin America and the Caribbean than infectious diseases, and the burden of cardiovascular disease as expressed by disability adjusted life

years is expected to exceed that produced by parasitic and infectious diseases in all sub-regions of the world except sub–Sahara Africa.2

6. Cardiovascular diseases and the other chronic non communicable diseases which share many risk factors and risk conditions are preventable. Widest community, national, sub-regional and international effort is required to achieve such prevention. An Inter-American meeting at the Ministerial Level on Health and Agriculture, is therefore an appropriate forum, concerned as it is about the health of the rural population, at which to review the topic of heart health and lifestyle among the rural community. This will allow us to enhance our understanding of some of the issues, reflect on circumstances under which the epidemic of cardiovascular and chronic diseases has arisen, consider impact on the rural poor, and seek ways to reverse or slow the progress of the epidemic.

7. Some 34 years ago Omran first advanced a theory of the epidemiology of population change.3 This theory was modified by him in 1998 and is referred to by the composite term of epidemiological transition, which recognizes the evolution in countries of a change in disease pattern from infectious diseases to chronic non- communicable diseases, in particular cardiovascular disease.4 Four phases are today accepted in the health transition process; the first, the age of pestilence and famine, the second characterized by residual rheumatic fever, and an increase in hypertension related diseases, third phase of degenerative and man made diseases of ischemic heart disease and stroke present in epidemic form, and the final phase, in which vascular heart disease and stroke remain dominant causes of death but only at older ages.

8. Countries in Latin America and the Caribbean are not at discreet stages in the process of health transition, but are contending with an epidemiological mixture comprised of a wide range of health problems and diseases. Dr. Catherine Le Gales-Camus, Assistant Director General of WHO's Department of Non-Communicable Diseases and Mental Health statement that "the chronic non communicable diseases are imposing a growing burden upon low and middle income countries which have limited resources and are still struggling to meet the challenges of existing problems with infectious diseases" is therefore relevant to most countries and rural communities in the sub-region.

9. The World Health Report 2002, advanced the concept of several causal chains leading to the development of cardiovascular disease, such as stroke or coronary artery disease, and resulting disability or death.5 These causes are distal socioeconomic, proximal, and physiological and patho-physiological. Reduction or elimination of one or more causal factors will reduce disability and death from this group of diseases.

10. The three most important physiological and patho-physiological risk factors in the causation of cardiovascular disease are hypertension, abnormal blood lipids or fats, and

glucose intolerance or diabetes. The important proximal, or lifestyle related causes, are obesity and physical inactivity, diet, and tobacco use, and the socioeconomic causes include poor income, low educational status and occupation.

11. The estimated prevalence of hypertension in Latin America and the Caribbean is 8-30%. Variable diagnostic criteria are used to diagnose the condition, characteristics of data sampling procedures are often not consistent, and the sites from whence the data is collected varies widely from national, to regional or local. Nevertheless, where data is available, one is struck by the high levels of previous unawareness of hypertension among persons surveyed, and the very small percentages of hypertensives treated and controlled.6 This is unfortunate since blood pressure control has been shown for many years to significantly reduce the likelihood of occurrence of heart and blood vessel disease.

12. Diabetes is an internationally known risk factor for heart disease and represents a major and increasing, but variable, disease burden in the sub-region. It is estimated that 35,000 diabetics live in Latin America and the Caribbean7 and in 1990, 291,000 deaths were attributed to diabetes and by the year 2000 this had risen to 465,828.8 The prevalence of diabetes is higher in our sub-region than it is world wide, and by the year 2025 it is projected that 8% of all persons in the sub-region will suffer from diabetes.9

13. Tobacco use is the leading cause of avoidable death throughout the world, and accounts for one million deaths annually, of which 46% are women. The WHO estimates that by 2020, tobacco is expected to be the single greatest cause of death and disability worldwide, accounting for about 10 million deaths annually. Among Latin American countries adult smoking ranges from 14.8% in Paraguay to 40.5% in Venezuela, with more than 20 % of young people in Costa Rica, Chile, Uruguay, Bolivia, Mexico, and Argentina being user of tobacco. In the Caribbean the story is somewhat better, though there is no room for comfort. Adult smoking where recorded in the Caribbean ranges from a low in Barbados of 9.0% to a high of 25.1% in Trinidad and Tobago, with youth use ranging from 13.0% in Antigua and Barbuda to 20.7% in Haiti.10

14. According to the WHO, 1 year after quitting smoking, the risk of coronary heart disease decreases by 50 percent. Within 15 years, the relative risk of dying from coronary heart disease for an ex-smoker approaches that of a lifetime non smoker.11 Efforts need to be made to determine effective ways of assisting the rural poor in the region in avoidance of exposure to tobacco, particularly since so many of them depend on the growth and cultivation of tobacco to sustain a livelihood.

15. Obesity is a serious risk factor, largely preventable through lifestyle behavior. It affects all age groups and is emerging in the sub-region at a time when under-nutrition remains a significant problem in rural as well as urban communities. Prevalence of

obesity is highly variable in Latin America and the Caribbean varying from 2.65% in women in Haiti in 1995 to 12.1% in the Dominican Republic in 1996. There is data in many countries of the sub-region to indicate increasing prevalence of obesity. Over the past decade prevalence of obesity has increased in Jamaica from 18% to 30%, and likely reflects what is occurring in most countries of the region in varying degrees.

16. The role of socio-economic factors leading to cardiovascular disease and other chronic diseases has become increasingly apparent. There is much good evidence to show that unemployment, social isolation, poor self esteem, poverty, powerlessness, low education, low literacy skills and sub-standard occupation have a direct relationship to prevalence of heart disease. Since family life is at the core of the rural community, health is one of the major determinants to the family's ability to learn and earn.

17. Several issues impact on health and health care in rural communities characterized as they are in most countries in the sub-region by poverty. The rural economy is often characterized by unsustainable farms, sub-standard housing, lack of transportation, limited resources to purchase food, medicine and health insurance, lack of resources and time for physical and other health maintenance and prevention activities, and restricted opportunities for a better life.

18. In rural communities, there is often a scarcity of health care professionals and health care facilities and hospitals; access to health care is further compromised due to long distances and hazardous terrain to be traveled to these institutions where public transportation is often non existent. The educational disadvantages of limited funding, inadequate facilities, lead to less formal education and fewer highly skilled individuals many of whom lack knowledge of healthy options and disease prevention. Programs aimed at reducing or forestalling the epidemic of cardiovascular and chronic disease in rural communities needs to consider and be aware of these factors and the role they play and the limitations they impose on successful implementation.

19. Over the past 3 years the InterAmerican Heart Foundation in an effort to better understand the circumstances related to cardiovascular disorders in the sub-region launched a research initiative known as CARMELA which stands for Cardiovascular Risk factor Multiple Evaluation in Latin America. The study was carried out in 7 cities (Buenos Aires, Santiago de Chile, Bogota, Quito, Mexico D.F, Lima, and Barquisimeto). It sought to determine the prevalence of hypertension, diabetes and abnormal fats and there associations, evaluate the impact of socio-economic status on heart disease risk, and determine the prevalence of other cardiovascular disorder risk factors, treatment, and adherence to treatment, among some 11,200 adults between the ages of 25-64 years. Preliminary data indicates a high prevalence of smoking, significant diabetes, and a high percentage of untreated and uncontrolled hypertension.12

20. The lifestyle or behavioral risk factors of unhealthy diets, physical inactivity, and smoking, coupled with social and psychosocial stressors, contribute not only to coronary heart disorders, but also to hypertension, stroke, chronic respiratory disorders, cancer, diabetes and obesity, namely the chronic non communicable diseases. These are considered to be separate medical disease entities, but share combinations of harmful predisposing lifestyles. Integrated strategies for the simultaneous prevention and control of groups of diseases, rather than of a single non communicable disease, are likely to be economical, feasible, and effective.

21. The reduction of the incidence and prevalence of chronic non communicable diseases, including coronary artery disease, requires countries and local communities to tackle the causes of these diseases at several levels, including the individual, community, regional and national levels.

22. The identification and management of the physiological and patho-physiological contributing factors of hypertension, diabetes and lipid disorders needs to be a priority. There is an abundance of evidence to show and for many years it has been recognized, that control of hypertension significantly reduces the risk of developing coronary artery disease, and more recently there has also been evidence that the same is true when diabetes is strictly controlled and abnormal lipid levels have been normalized. Programs and initiatives aimed at achieving these objectives need to be established in rural communities.

23. The lifelong adoption of appropriate behavior or lifestyle, is a critical success factor in chronic non communicable disease prevention and wellness maintenance, and requires the individual to adopt appropriate dietary intake, indulge in regular physical activity, and avoid exposure to tobacco. These personal choices necessitate that living environmental conditions are conducive and facilitative. Governments and legislators have a significant responsibility in this regard.

24. As we seek to understand reasons for the high incidence and prevalence of chronic diseases within our countries and among the rural poor we need to seek the "cause of the causes" and perhaps we may need to look no further than poverty itself and its consequences. Douglas Black's report on inequalities was one of the earliest to show a close relationship between income levels and health outcomes – the lower the socio-economic status the worse the outcomes, and the converse for the higher.13 Michael Marmot has further developed this concept and theme and posits that the social gradient in health is evidence that its causes are to be found in the circumstances in which we live and work.14 The social gradient is thus a public heath problem and one that therefore needs to be addressed at all levels. This is a challenging and complex requirement but one that should addressed in order to reduce the prevalence of chronic illnesses.

25. Chronic diseases should be tackled in the context of a clearly defined and determined plan. It is strongly recommended that such a plan be placed within a program that addresses the prevention and management of all chronic non communicable diseases since as previously stated many chronic conditions share common risk factors and conditions. Many such plans have been described and discussed. They all need to be modified to meet local circumstances and conditions.

26. A considered plan of action should be comprehensive and identify certain values that determine and inform its philosophy, health goals should be clearly identified, strategies to achieve those goals should be determined and recognition of the need to build capacity is almost always a requirement for successful implementation of the plan.

27. Over the past 13 years Heart Health Declarations have been published from Victoria,15 Catalonia,16 Singapore17 and Osaka.18 These declarations emphasize the need for recognition of health as a fundamental right, with the implication of equity and accountability, and recommend that programs in communities should seek to promote health, and prevent, detect, and treat, disease, in the most cost effective manner. Strategies to address socio-cultural issues, public policies, increase knowledge and skills, provide surveillance training, enhance research capability, and improve programs of health treatment and services, are additional critical success factors. These actions will require development and mobilization of the infrastructure of the entire community in association with strong leadership.

28. The InterAmerican Heart Foundation, a non governmental grouping of heart foundations and similar organizations of the Americas, has as its mandate the reduction of heart disease and stroke in the sub-region. It recognizes that the epidemic of heart and chronic non communicable diseases requires the efforts of entire communities and countries if we are to “make a difference”, and is therefore committed to working closely at the sub-regional level with all groups and sub-regional organizations that seek to assist our people in living healthier and more productive lives.

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