

Brief Communications

Medical research in developing countries still in Cinderella status

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In the new millennium, the dichotomy of world countries to developed and developing ones is not yet an anachronistic idea. Historically, Al Asuli, one of the eminent Moslem figures of his age, who lived in Bokhara (now Kazakhstan), crafted some 900 years ago a monumental medical pharmacopoeia. He classified the contents of his work into 2 parts: "diseases of the poor" and "diseases of the rich". It is interesting to notice that after all these centuries; his notion is still valid and has not been reduced to mere historical footnote. In my view, to address medical research in developing countries, where the toll of diseases of the poor is whooping, is not unlike trying to deal with an ideological Hydra. Apparently, it is one of the highly charged issues which tends to produce more heat than light. Notwithstanding developed countries experiences, health care solutions, plans, programs, and strategies could be used as template for organization and planning for developing countries; but yes, they are not as such perfectly transplantable to a developing countries' soil. Obviously, it would be a naive to attempt to do so losing sight of these countries unique menu of health priorities, social values, cultural norms and practices, ethical code, public definition, perception, and accepted standards of health care. By way of juxtaposition, malaria, cholera, acute respiratory infections in children, hepatitis B virus, tuberculosis, meningitis, parasitic infestations, malnutrition, availability of vaccination programs, and safe childbirth remain among the most pressing health care problems which plague the less developed countries. Whilst in the more developed ones, their health problems include for instance, breast cancer dementia, diabetes mellitus, ischemic heart disease, alcohol abuse, depression, schizophrenia, multiple sclerosis, and Parkinson's disease. These disease entities with their relevant preventive measures, genetic underpinnings, diagnostic modalities, therapeutic options, controversies, and ethical ramifications and so forth, represent the focal point of most research works.^{1,2} The disparity of health problems and priorities agenda is explicitly self-evident. Why then this much ado about medical research? Well, obviously, it is one of the few

activities which - when carried out and exploited well - will profoundly transform the health of the entire society. Let us have a look. It can provide legislators; policy makers and others involved in the decision-making processes the ingredients to make sound judgement and thoughtful planning. Valuable, precise, and up to date vital statistics will be available to let governments and societies zero in on present health problems and thus devise appropriate courses of action. Likewise, an insight into projected health problems of the society will be additionally gained to allow futuristic health services planning and priorities-setting strategies. Policy makers are further enabled to make better use of the existing health facilities and realistically identify, analyze and quantify existing deficiencies and to figure out workable solutions. Medical practitioners armed by user-friendly, society-centered, locally relevant database, will be able to deliver better-customized care. Thanks to medical research whereby any false sense of health care security based on impressionistic and untested assumptions or inflated expectations could be debunked and eliminated. Otherwise, they would readily derail governments and public alike. Now, with this bird's eye view, it should be, I guess, incontrovertible to conclude that medical research is worthwhile and a smart national investment. Despite these tantalizing merits medical research possesses, developing countries, yet, unluckily cannot enjoy them-they reap as they sow. The following pathologies with their cumulative effect account for this unhappy end. At the very heart of these pathologies lies the innate lack of public belief that medical research is at all necessary for these countries. Instead, it is the sole domain and an esoteric activity of developed countries. This distorted way of thinking prevailing in these countries fueled knowingly or unknowingly by local media and curricula and embraced by their people is just enough to defeat us even before we begin. Likewise, it extinguishes forever any hope to find a springboard for meaningful discussion. One of the chronic pathologies eroding medical research in developing countries is poor government investment and funding. The United Nations' Education, Science and Cultural Organization (UNESCO) recommends that countries dedicate at least 2% of their gross domestic product to research and development. For instance, United States of America and Japan, these countries dedicated 2.8% and Canada 1.5% at the beginning of the 1990's. Unfortunately, the figure is far much less in developing countries.³⁻⁶ Even worse, the gap is alarmingly growing very rapidly between them.⁷ I wonder that they have to run in order just to remain in the same place. What might perpetuate this inadequate funding is that governments exclusively

provided it. On the other hand, private sector participation in these countries is almost non existing. Its conceptual vision to this enterprise is still clouded with uncertainty, skepticism, and reluctance. Tragically, in developed countries the estimated overall research which is approximately 30-50% was funded by the private sector.⁶ Supposedly, in developing countries private sector should at least act to improve the state of anemia or else the medical research is prone to suffer when government funding shrinks. Moreover, poor basic facilities and rudimentary infrastructures combined with outdated information and communication technologies continue to bottleneck any thinkable plan for progress. Parenthetically, the entire continent of Africa has a fewer telephones than those in Manhattan.⁸ Added to these are the crippling staffing deficiencies, inadequate public policies for research, organizational and administrative failures, minimal supervised professional training coupled with lack of motivation and incentives and resources centralization. All of these collectively operate on a mosaic of uncompromisable health related cultural dogmas and social ideologies, illiteracy, famine and poverty. Left unchanged, the soils of these countries will inevitably remain infertile for seeds of research-raising enterprises to implant, let alone to take root and flower. Here, with this background, a nagging question springs to one's mind: How could this multifaceted problem be tackled then? Well, I think the answer by the same token lies best in multidisciplinary, multidimensional approach. A caveat at this point is in order: my answer that follows is meant neither to be inclusive of everything that must be carried out nor exclusive of other valid methodologies and tactics. First and foremost, it behooves that governments in developing countries flex their legislative and executive muscles as to be more involved (in the fullest sense of the word) in improving the status quo of medical research. They ought to carry out necessary reforms both in the structure as well as in the function of research bodies to increase quantitatively and qualitatively their output. Governmental research bodies have to work transparently and jointly. Common targets and priorities must be set beforehand to eliminate the dominance of polarized views and antagonism, which undoubtedly suffice to gut such collaboration. Private sectors, however, should realize the pivotal role they are expected to play in the development and promotion of societies health and welfare. Media are increasingly influential. They can educate the public, sensitize the society, and elevate its perception to the great positive effects medical research can bring about down the road. They are well suited to dispel the delusory notions and pernicious ideas that dogged medical research in these countries. Furthermore, nationwide well-organized health information

systems with better technology infrastructure and communication facilities should be built and made cheap and accessible (especially in our 'com' era). With this diverse panorama in mind, the how of the planning and initiation of medical research in these countries singularly hinges on the sensitive twin consideration of their health care priorities and the resources and manpower earmarked for research projects and programs. In this connection, World Health Organization, World Bank and other United Nations agencies have been indeed instrumental in providing technical, logistical, manpower and funding support. I believe that this support is quite determinant in the early phase of research capacity building endeavors. It adds timely momentum to the research machine until it acquires a reasonable degree of self-propulsion. However, to ensure these endeavors to autonomously continue and accelerate, policy makers in these countries should fully understand that things never get better by being left alone nor ignoring problems will make them disappear. Only then, medical research in countries where "diseases of the poor" strike will celebrate its release from its current Cinderella status.

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