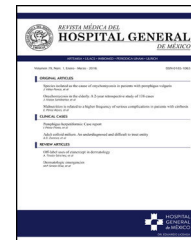




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EDITORIAL

Four gaps in scientific research in health institutions in Mexico



Cuatro brechas en la investigación científica de las instituciones de salud en México

The main work of doctors includes three complementary aspects: the care of their patients, teaching activities and scientific research. It is not mandatory to do all these activities for all doctors. We consider that currently there are at least four major breaks, in the field of scientific research in health in Mexico; we do a brief analysis of them.

The skills gap

The skills required for research are specialized and are not a priority objective of all educational institutions of our country.¹ Most Medical schools train their students in a program based not only on the acquisition of knowledge; academic institutions now are seeking a more comprehensive program that includes problem-based learning, skills development and computer techniques. We know that there are other implicit aspects in teaching as important as technical knowledge, and refer to the “values” or bioethical principles of medicine, that physicians–teacher–researchers have as a frame reference for their work. However, our code of ethics has already been exceeded by the pressure medical practice receives, where researchers has to face a fierce competitive struggle for the limited resources.

Considering a physician as a researcher just for the sake of obtaining his bachelor’s degree is a big mistake. Nor graduating from a medical specialty gives this set of competencies. Although one of the subjects of the University Program of Medical Specialties of the National Autonomous University of México (UNAM), where most of country specialists graduate, includes research seminar as a compulsory subject. Main of the research made on medical residencies, deal mostly with retrospective and retrolective studies, case series or in the best circumstances, case–control studies or transversal descriptive studies. These studies have little strength causality and consequently are not published papers in scientific journals. And in addition, in case to be

published, are rarely consulted, and often are considered by the authors as a “process to graduate.”

The resource gap

The resources available for research are always limited and they are not assigned equally. The World Health Organization recommends applying 3% of internal gross product, (IGP) in Scientific and Technological Research, known as internal expenditure on Research and Experimental Development (Gide). The reality is that in Mexico this percentage has varied between 0.43 and 0.56% of IGP in the last 10 years. One of the goals of the current federal administration is to reach 1% of IGP which would be an impressive achievement.² The budget allocated to the category of research depends on the mission for whom the health institution was created, and thereby National Institutes of Health are those who obtain more resources, either by federal budget, or through other funds; such as the Sectorial Fund of Health Research and Social Security (FOSISS) that gives its greater resources to national institutes of health each year, than the Mexican Social Security Institute and the Institute for Social Security and Services for State Workers, where it serves more than 50% of the Mexican population. It is understandably this decision, since it is in the national institutes, where the major number of researchers from the National System of Researchers of the National Council of Science and Technology are focused, and the nature of the institutions lies in having a research mission rather than assistance. Leaving other health institutions without sufficient resources to conduct research.

The gap of technology transfer

On the other hand, there is a lack of linkage between the generation of knowledge and its practical application or

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commercialization. There is not public health policy for commercialization of knowledge generated by its scientists, in most cases there is no office of technology transfer, and there is no link between the talents of research and its results with companies that develop marketing model, and companies that provide resources to patent knowledge or technological.

The gap impact

How to assess the impact is very important from the perspective of current research results in our country; are measured on the basis of articles published in scientific journals, and their impact factor. However, other aspects should be considered such as the impact of scientific knowledge in health policy, or improvement in the quality of life of the population or a decrease in morbidity and mortality of major health problems in Mexico. Has already considered the effect on innovation and patent development but our performance as a nation is far from other countries members of the Organization for Economic Co-operation And Development OECD group, and from other developing countries of similar conditions.

It is essential resolve these challenges, to improve scientific production in health in our country, and avoid dependence of technologies created abroad.

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