Chapter 44
Beyond Brain Drain:
A Case Study of the Benefits of Cooperation on Medical Immigration

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ABSTRACT
The past decades have witnessed an increase in the pace and a consolidation of immigration of medical doctors and the globalization of the health system. If properly managed, globalization of the health workforce could lead to perceptible gains in health status for all parties involved. In a world economy shaped by strong institutions, globalization could benefit those countries with a strong and human and physical capital. This chapter reviews the importance of immigration and aims at presenting different views on immigration of medical doctors. While the traditional view has been dominated by the rhetoric on “brain-drain,” a new and more promising thread of research has centered on the relatively new concept of “brain-circulation.” Mobility for medical workers and health workers, in general, can be a significant contributor to the formation of scientific and technical human capital, which has been an important driver in economic expansion and social development in many regions of the world. To illustrate the point, the authors use a cooperative framework to elucidate the relationship between immigration of medical doctors and economic development in the long-run using the potential agreement between North Africa and the European Union as an example. The finding could have implications for the capacity of developing countries to turn around and use “circular immigration” as a means to integrate into the emerging knowledge economy.

INTRODUCTION
The migration of highly qualified personnel is a phenomenon that has accelerated tendency during the past decades and has generated a wide spread debate. One strand of research has focused on what is termed “brain drain.” It emphasizes how the globalization of the world economy is affecting global health, and has generated an uneven distribution of the costs and benefits depending on the direction of the migration flux. The host countries benefit from:
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• A short term relief of labor shortages,
• An added value in terms of R&D,
• More tax and social security revenues, and
• An increased competitiveness.

The sending country on the other, registers

• A loss in its medical staff,
• A loss on the return to investment in education,
• A loss in tax and social security revenues, and
• Higher salaries in the medical sector and overall, a deeper poverty.

The other strand of research has been shaped by a more active view on immigration. Under the umbrella of the World health system, this strand builds on the cooperative framework and coalition to advocate that immigration can benefit both the sending and the receiving countries.

This chapter deals with the issue of coordinating immigration of medical doctors amongst coalitions. It investigates the incentives of agents in the same coalition to agree to share skilled health labor force. This chapter examines acceptable agreements in the framework of cooperative game theory with transferable payments. It describes the cooperative game induced by a win-win situation, and analyzes a stable collaborative agreement with an application to the South and North rim countries of the Mediterranean.

This chapter investigates questions that are relevant to the public policy debate on the implications of immigration of the sending country. The first issue that we will tackle is to try and detangle the complex and diverse web of linkages between globalization and population health as well as the challenges faced by public policy makers and health practitioners. Second, we will survey the motives for medical migration, without which we cannot formulate an adequate public policy. Third, we investigate the implications of the migration of medical doctors, and skilled health workers, in general, on the country of origin. Lastly, we will draw on cooperative game theory to go beyond the debate on “brain drain” and think about an agenda that will make the most of globalization of the medical labor market.

We address the latter issue using a cooperative framework with “utility transfer” and “side payments” to formalize the relationship between a sending and a receiving country. The intuition behind this approach is that a coalition can be formed based on an agreement between for example, Morocco and one country from the European Union, or between the South rim of the Mediterranean Sea and the European Union. This agreement would set the terms of trade between the two countries in defining the checks and balances for a free circulation of medical doctors.

1. THE CIRCULATION OF HEALTH PROFESSIONALS: A GROWING MOVEMENT

One feature of globalization is the increased circulation of goods and services between countries. Migration of individuals and families has seen acceleration the past decade, among which the migration of professionals. Health workers are particularly concerned with this migration. Poorer countries have become a major supplier of health workers for the richer countries.

In Pakistan, students who are accepted into medical school are congratulated — only half jokingly — on three counts: that they will become doctors, that they will become certified by the American Board of Medical Specialties, and that they will soon be living in the United States (Shafqat & Zaidi, 2007, p. 442).

The most frequent state is that medical graduate from US and other developed countries remain in those countries after graduation. Mullan (2005) states that 25% of the international medical