



## Impact of International Training of Medical Specialists for underdeveloped Countries: Brazil– Angola experience

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### Abstract

**Introduction:** Angola has about 28 million inhabitants and approximately 0.21 physicians/1,000 population. There is only one specialist in some medical fields in the whole country while there is not even one specialist in some other fields. The objective of this study is to investigate the significance of the Cooperation Program for Foreign Doctors (Brazil) and its impact on the provision of specialized medical care in Angola, showing the evolution of the different specialties as well as the emergence of some specialties in Angola.

**Methods:** A retrospective study was performed, identifying the Angolan doctors trained in Brazil by the Cooperation Program for Foreign Doctors. The number and specialty of the trained physicians were obtained from the database of the program, and the number of doctors in each specialty in Angola was obtained by consulting the registry of doctors of the various specialist colleges in Angola.

**Results:** From February 2011 to March 2019, 111 physicians were trained in 32 specialties; there was a greater increase of 50% or more in 6 specialties, with emphasis on geriatrics, haematology, nuclear medicine, surgical oncology and sleep medicine that had no specialists.

**Conclusion:** The lack of specialist doctors is a very common problem in low-income countries; on the other hand, high-income countries are already beginning to limit training in some specialties due to lack of labour market. The Angolan cooperation model could be adopted by several countries to promote a qualitative overall growth in health care.

**Keywords:** Medical education; Public health; Training

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## Introduction

Angola, a country on the Atlantic coast of sub-Saharan Africa, has about 28 million inhabitants and 6400 physicians, i.e. approximately 0.21 physicians/1,000 population (2017); there are some specialties with only one doctor in the whole country and some with no doctors at all (1).

In spite of being dramatic, the medical

assistance scenario has been improving since 2011 when new medical colleges were opened and several training programs were started abroad to train doctors in different specialties (2).

One of the most important countries for training Angolan doctors in various specialties is Brazil because, besides the better quality of medical education in Brazil, people in both countries speak the same language and share

similar culture (1).

The largest training program for Angolan doctors in Brazil is the Cooperation Program for Foreign Doctors (PCME) of the Hospital das Clínicas of the Faculty of Medicine of USP (the largest hospital complex in Latin America). The PCME was developed to provide specialty training for foreign-trained medical doctors who would not be able to achieve the specialty training in their home countries (3).

The trainee is not required to undergo the validation of his or her medical license in Brazil. The regional medical council provides a temporary training license that allows the foreign physician to train under supervision at the Brazilian sponsoring institution.

In summary, the foreign physicians' activities, responsibilities, and training duration are exactly the same as those of the residents who graduated in Brazil (3).

Periodical technical and knowledge evaluations are performed as part of the residency program, and the foreign trainees are required to maintain high standards in order to continue and complete the training. In addition, the foreign physicians training in the PCME have the commitment to return to their home countries to practice and transmit the education received abroad (3).

The objective of this study is to investigate the significance of the PCME and its impact on the provision of specialized medical care in Angola, showing the evolution of the some specialties as well as the emergence of some others. This project can serve as a model for cooperation and promotion of health care in low-income countries.

### Evolution of PCME in Eight Years

From February 2011 to March 2019, 111 physicians were trained in 32 specialties and currently eight physicians are training in eight different specialties (Cardiac surgery, neurosurgery, allergy, Internal medicine, geriatrics, plastic surgery, laboratorial medicine and cardiology). There has been a greater increase of 50% or more in 6 specialties, with emphasis on geriatrics, haematology, nuclear medicine, oncologic surgery and sleep medicine with no specialists in Angola. Only four doctors left the program for various reasons, mainly personal reasons.

### Small Numbers Big Impact

The training of medical specialists depends primarily on the existence of trained general practitioners, which was very deficient from 1975 to 2011 in Angola. There was a large increase

that year, from 2 to 11 medical schools and the number of trained doctors doubled from 2011 to 2018, as many as the number of doctors in the past 35 years (2). With the emergence of new general practitioners it became even clearer the need for the training of specialists. In the same year the PCME begins and two years later the first specialists graduated.

With the PCME six specialties had their first specialists, which had a huge impact on medical care in Angola so that there was no need to send the patients abroad for treatment.

The impact of PCME was also in the training of other specialists in the country because after being exposed to the academic environment of the PCME, several trained doctors contributed and/or led the training courses for new specialists in their own fields in several hospitals. For example, after 2014 when the first specialist in family medicine was trained by the PCME, he opened medical residency in this field in Angola and today it is one of the specialties with an organized training program and with a reasonable volume of specialists. There has been further increase in other specialties. Unfortunately, most of these specialists find themselves in the capital of the country making that benefit still limited. Another major disadvantage is that being a low income country, Angola has not enough equipment in many hospitals for the more complex specialties, causing many of these trained specialists do not fully exercise their acquired skills.

Although it is not the only factor, we believe that the increase in medical specialists has also made a major contribution to the improvement of all health indicators in Angola as an improvement in the infant mortality rate from 154/1000 live births in 2000 to 65/1000 live births in 2017, and the life expectancy at birth from 40 years in 2003 to 60 years in 2018 (1, 4, 5).

The PCME is not the only training program for doctors, nor is it the oldest; several doctors have been trained since independence (1975) in Cuba, Portugal and Eastern Europe (6), but PCME is the only continuum (every year new doctors enter) and more differentiated. Another advantage of the PCME is the country itself; Brazil was the first country to recognize the independence of Angola. The Brazilian population has a diet and life habits almost the same as those in Angola, which makes training easier. That is why the rates of drop out of the program is very low, i.e. 3,4%.

### Limitations

The main limitation of this work is the lack of enough data because there is no organized database of medical specialists. However, we

think that this did not prevent the achievement of the objective and gave a global idea of the impact of this cooperation on the health of the country.

### Conclusion

The lack of specialist doctors is a very common problem in low-income countries. On the other hand, high-income countries are already beginning to limit training in some specialties due to lack of labour market. The Angolan cooperation model could be adopted by several countries for the promotion of a qualitative overall growth in health care.

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