



Editorial

# The birth and life of the Pan African Thoracic Society Methods in Epidemiologic, Clinical and Operations Research (PATS MECOR) program: celebrating 15 years

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## ORIGINS OF PAN AFRICAN THORACIC SOCIETY (PATS)

The PATS began at the prompting of several past presidents of the American Thoracic Society (ATS) who pointed out that Africa had a huge burden of respiratory disease, mostly undescribed, with few respiratory physicians and no representation at the Forum of International Respiratory Societies (FIRS). PATS began as a virtual society at a time when that was unusual, with a website and a journal – the African Journal of Respiratory Medicine which has now been replaced by the Journal of the PATS. It was evident very early that this was not enough – the engine rooms of Africa, namely, the bright talented young physicians in each country, had to be mobilized to describe the burden of disease, find research solutions, and advocate for change and implementation. All African regions needed to come together to make a difference, by studying and working together.

## THE METHODS IN THE EPIDEMIOLOGIC, CLINICAL, AND OPERATIONS RESEARCH (MECOR) MODEL

The ATS's MECOR program was chosen as the model. ATS MECOR started in Latin America in 1995 as the International Epidemiology Programme with the overall goal of improving global lung health by increasing the capacity for doing high-quality research that addresses the needs of low- and middle-income countries.<sup>[1]</sup> The name change to the MECOR program occurred in 2004 and reflected a program expansion and the introduction of courses at multiple levels. The program was developed as a ladder so that students could move up through sequential courses toward mastery of study design and data analysis.

## PATS MECOR BEGINS AND THRIVES

The PATS's MECOR program (PATS MECOR) was the first MECOR program outside of Latin America and was started in 2007 with the same goal, specifically of improving lung health in the African continent. The target audience for PATS MECOR was and remains clinical and academic

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physicians and public health professionals in African countries who share a goal of increasing their understanding of how research informs their practice of medicine and how new knowledge is acquired through research. That very first PATS MECOR was held in Malawi and was terrifying – almost all the students already had a Master’s degree! The tradition of MECOR that “we are all learners” was honored and the course was brilliant. The first class became firm friends with the faculty and all of our lives were enriched.

Gradually, over the ensuing years, MECOR moved to support Level 1, 2, 3, and 4 courses. We traveled to Kenya [Figure 1], and back to Malawi, then on to South Africa and Tanzania [Figure 2] getting bigger all the time. PATS MECOR graduates began to take part in the WHO advisory groups, in national decision-making committees, and in prominent positions of leadership in academic institutions and societies. Data from PATS MECOR student studies have answered among others, questions regarding the epidemiology of chronic obstructive pulmonary disease and asthma, the management of pneumonia, and the use of oxygen in Africa.<sup>[2]</sup> Through research capacity building, PATS MECOR has also challenged and addressed global health inequities and harnessed the opportunities in these relationships.<sup>[3]</sup> Eventually, PATS assumed the Chair of FIRS. PATS and PATS MECOR have matured to become a society and a capacity development program with high international stature.<sup>[4]</sup>



**Figure 1:** PATS MECOR Faculty and students in Limuru, Kenya, in 2015.

## ADAPTING TO CHANGE AND COVID

The MECOR and PATS MECOR programs are designed as a ladder of very intensive 1-week, in person, courses in research

methods together with extensive reading and homework assignments, held in one country annually. Students can come from any country in the African continent and maybe at any level of their training or academic position with priority given to students who are at the senior residency, fellowship, or junior faculty levels.

As PATS MECOR transitioned from a pilot phase to a stable program, the leadership and funding model changed. Stephen Gordon demitted to Kevin Mortimer and promptly over to Obianuju Ozoh and Refiloe Masekela. Furthermore, students who have excelled are invited to come back as teaching assistants, then faculty and course leaders. For many of the leaders of PATS today, MECOR gave them a jump start – or at least a big boost – to their research and academic careers. Furthermore, the ATS leadership and staff have observed the amazing progress and innovations that the PATS MECOR program has made, and PATS graduates are increasingly being asked by the ATS to take on committee assignments and participate in helping to plan the future of the MECOR program.

Funding for PATS has evolved from the first grant from Nuffield Foundation to Medical Research Council, then NIHR (UK), Aldama Foundation as well as individual donations; with constant support from ATS.

The style of teaching changed, adapting to the new and different needs of consortium members to have investigator meetings in parallel to the teaching – a conference! Then, the first and second PATS symposia took the whole meeting to a new level in Nairobi and Durban. We experimented with MECOR-Lite...a 1-day taster in Kenya in 2016 during the PATS conference, and it was also a huge success with publications from ideas developed during that meeting.

During the COVID pandemic, the program has been adapted to being virtual with essentially the same expectations and course work. The pandemic remains a challenge to planning due to the fluidity of the situation and differing global regulations.



**Figure 2:** The last in-person PATS MECOR meeting with faculty and students in Tanzania 2019.

## CURRENT STATUS

Since the PATS MECOR program was started, 274 students have completed at least one level and 72 have completed Levels 1–3. In addition, PATS MECOR has added a spirometry program, teaching students how to do high-quality spirometry and a program that has taught the essentials of air pollution monitoring. Both programs have been hands-on and have resulted in a level of proficiency in spirometry and air quality monitoring that can and has been incorporated into research programs and clinical laboratories. Perhaps, most important, PATS MECOR has promoted and helped embed a basic grounding in research methods as an essential component of medical or health professional training in Africa. An extra benefit is that nearly all PATS MECOR graduates are now teaching others and helping to expand the knowledge they have gained into their work environment. This gradually leads to an increased focus on questioning established ways of addressing health-care needs, including the organization of health care and public health, at all levels of society. The importance of *asking questions* is emphasized in all of the levels as this is the secret of bringing about change.

## THE FUTURE FOR PATS MECOR

PATS MECOR is a voluntary program for faculty and students. The future depends on continuous goodwill, generosity, and motivation, with the much-needed financial backing. The Buist Pathway to Leadership Award (a generous donation by Prof Sonia Buist) showcases the goodwill and generosity that PATS MECOR continues to receive. For

those of us who have taken part in the first 15 years of PATS MECOR, it is among the most rewarding experiences of our careers. The excitement, energy, and optimism during the meetings are unforgettable. The connections made have led to big consortia grants, to career step change, and to the momentum of PATS to advocate at the highest level. Now, the future is in the hands of the third generation – and it is safe there. It is heartwarming to know that with and through the PATS MECOR program, respiratory patients across Africa cannot be forgotten.

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