

REVITALISING CLINICAL RESEARCH IN SOUTH AFRICA

A STUDY ON CLINICAL RESEARCH AND TRAINING IN SOUTH AFRICA

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Academy of Science of South Africa (ASSAf)

ASSAf Study



Joint work of a 13-member Study Panel appointed by the Council of the Academy of Science of South Africa (ASSAf)

Brief / Aims

- **Diagnosis: To identify the barriers that are inhibiting clinical research in South Africa**
- **Treatment: To make recommendations for the revitalisation of clinical research that can be implemented by the Department of Science and Technology, Department of Health, Department of Higher Education and Training, Department of Trade and Industry, Universities, Industry, Science Councils, and other Role Players**

Findings

- **Clinical research is important because it can improve health outcomes by establishing the effects of health-care interventions and promoting and facilitating best-possible health-care practice**
- **It is a crucial element in the education and training of health care workers and the effective provision of appropriate health care**
- **Revitalising clinical research is in the national interest and requires efficient and supportive management and encouragement at all levels**

Findings

A national culture supporting clinical research will:

- **Accept the value of clinical research, based on the principle that ‘the proper study of humankind is humans themselves’**
- **Understand that sustainable health care systems require guidance by a critical mass of research-experienced clinicians and the continuous training of new generations of research-informed clinical care givers**
- **Recognise the importance of investment in clinical research, due to its complex and multi-dimensional nature**

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- **Enable an appropriate balance between risks and benefits in clinical research, ensuring ethical practice**
- **Enable an appropriate balance between curiosity-driven and problem-directed research in addressing key health risks in society**
- **Place clear emphasis on public service and public benefit in the conduct of clinical research, promoting public trust in and understanding of the role and contribution of research in society.**

Research outputs



- **While South African scientific publishing represents a small fraction of world output, it comprises a large proportion of scientific research on the African continent**
- **Clinical research was for many years the most important part of South Africa's scientific output in terms of quality and quantity**
- **GSH was the third largest contributor of top-1% cited articles in ISI from 1981-1991 (behind UCT and Wits)**

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- **The number of clinical medicine journal articles has declined since 2003, and health research publications have shrunk markedly as % of the total from the country**
- **The trend has been towards increased publication of clinical medicine journal articles in international journals, and particularly in a wide variety of specialty journals**
- **Although more female and black authors have been publishing than before, progress has been slow and the proportion of older authors has been rising**

Chapter 7

--- seeks to address the declining size and increasing age of the workforce actively engaged in clinical research, and the paucity of effective training programmes and unattractive career-pathing in the clinical research sector.

Findings

- **The combined burden of clinical teaching and training, health service, and research falls on a shrinking and ageing pool of academics in health science faculties; whose capacity is limited to increase the production of properly trained health care workers and to train and inspire a new generation of clinical researchers**
- **The system is unable to cope with the increasing demands of clinical service imposed by the colliding epidemics of infectious disease (TB and HIV/AIDS) and non-communicable disease (heart disease and stroke)**
- **A national plan involving the spending over three years of half-a-billion rand has recently been implemented to enhance clinical training at all levels in South African higher education institutions**

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- **There is insufficient appreciation of the need for a health basic sciences underpinning of good clinical research training and performance**
- **There is no national plan to provide coordinated support for the training and development of clinical researchers, and grossly insufficient support for research professorships and training fellowships in the clinical research field**
- **There is little incentive for clinicians to train in doctoral programmes, resulting in a very small number of the clinical professoriate having doctoral degrees**

Recommendations ASSAf ACADEMY OF SCIENCE OF SOUTH AFRICA

- **Create a national plan for research capacity development in clinical sciences for undergraduate and postgraduate students, and junior and senior faculty in clinical research, parallel to, and aligned with, the current/existing national clinical training plan.**
- **A target should be set for 500 PhDs to be produced in the clinical research field over the next 10 years, while 30 Research Chairs should be earmarked for the clinical sciences (DST) [and maybe at least one national centre of excellence. WG]**
- **Research-based clinical lectureships and clinical professorships need to be established in all clinical disciplines to rejuvenate and expand the pool of clinical research trainers and academic clinicians in general, plus investment in basic health/pathology sciences**

Recommendations: Curriculum

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The objectives of the proposed National Clinical Scholars Programme may be achieved through efficiently modular combinations of :

- **expanding the intercalated-research-year model of selective training of motivated undergraduates (BSc Med)**
 - **having more clinicians participating in BSc Med Hons programmes**
 - **re-designing the MMed research component**
 - **making possible concurrent and sequential PhD degrees for clinical under- and postgraduates, through widening of the necessary opportunities and support mechanisms, and providing a maximum of flexibility in funding possibilities and degree structures**
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- **ensuring that an adequate cadre of basic scientists exists to underpin the entire training system**
- **also promoting training for biostatisticians and other supporting professions for clinical research at universities**
- **incorporating ethics into clinical research training and education**
- **funding learnerships for graduates in the research facilities of large multinational and national companies (DST)**
- **developing and supporting a network of skilled mentors who can lead the development of young clinical researchers**

Full Report



- Many other findings and recommendations - see full Report at www.assaf.org.za/programmes/

THANK YOU!