

Proposed Greater Sekhukhune Outreach
Programme: an evidence based approach
for developing medical genetic services in
South Africa

Arnold Christianson
Division of Human Genetics
National Health Laboratory Service
&
University of the Witwatersrand
Johannesburg, South Africa.

Acknowledgement

- CAPABILITY
- EUROAGENTEST
- National Health Laboratory Service
- Division of Human Genetics, NHLS
- Limpopo DOH & University of Limpopo

A little history

Northern Province clinical genetic outreach programme 1990- 1997



“Dr Christianson I presume?”



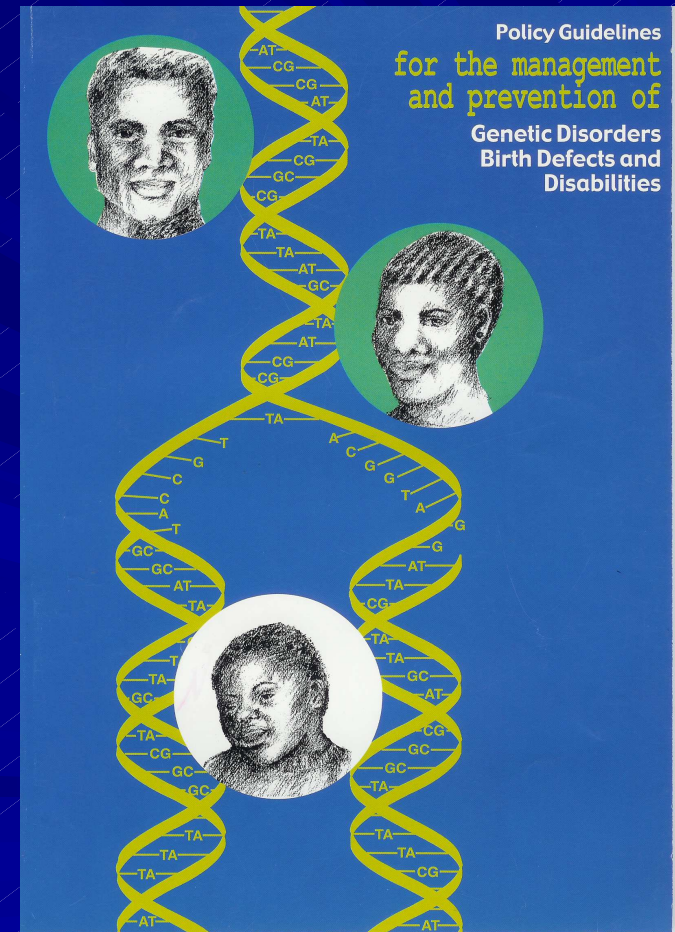
Prof V Penschaszadeh & Snr R Shimange-1997

Christianson A L, Venter P A, Modiba J H, Nelson M M: The development of a primary health care clinical genetic service in rural South Africa- the Northern Province experience 1990-1996. *Community Genetics* 2000; 3: 77-84.

Launch of the National Policy Guidelines by the Minister of Health- August 2001

Established:

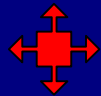
- The need & approach to delivery of services for care & prevention of birth defects
- Importance of PHC established
- Priority conditions
- National education training requirements-Doctors & nurses
- Role & integration of medical genetic laboratory services
- Need for acquisition of birth defects statistics
- Looked briefly at ethical and costing issues



Medical Genetic Departments in SA



Established



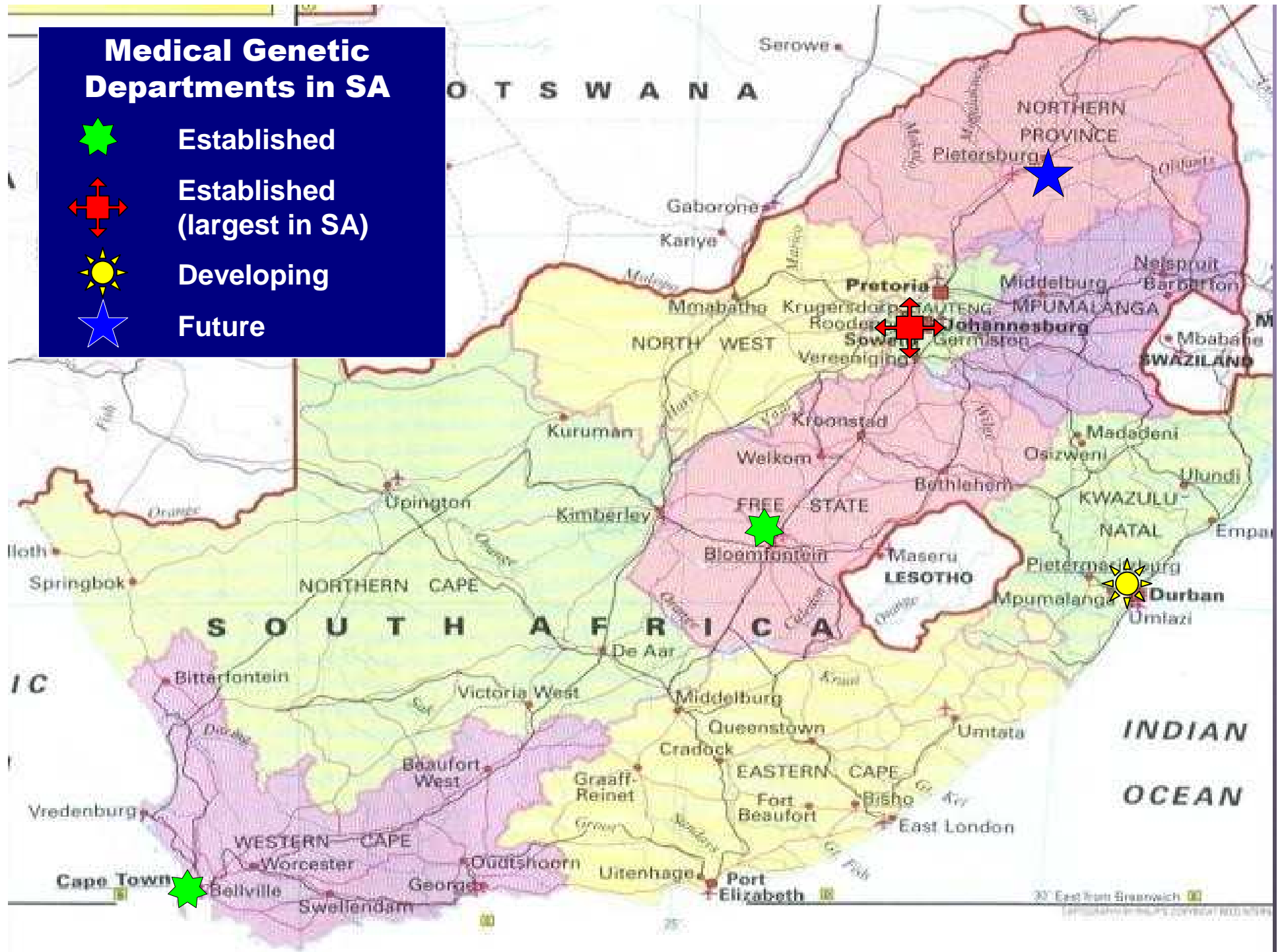
Established
(largest in SA)



Developing

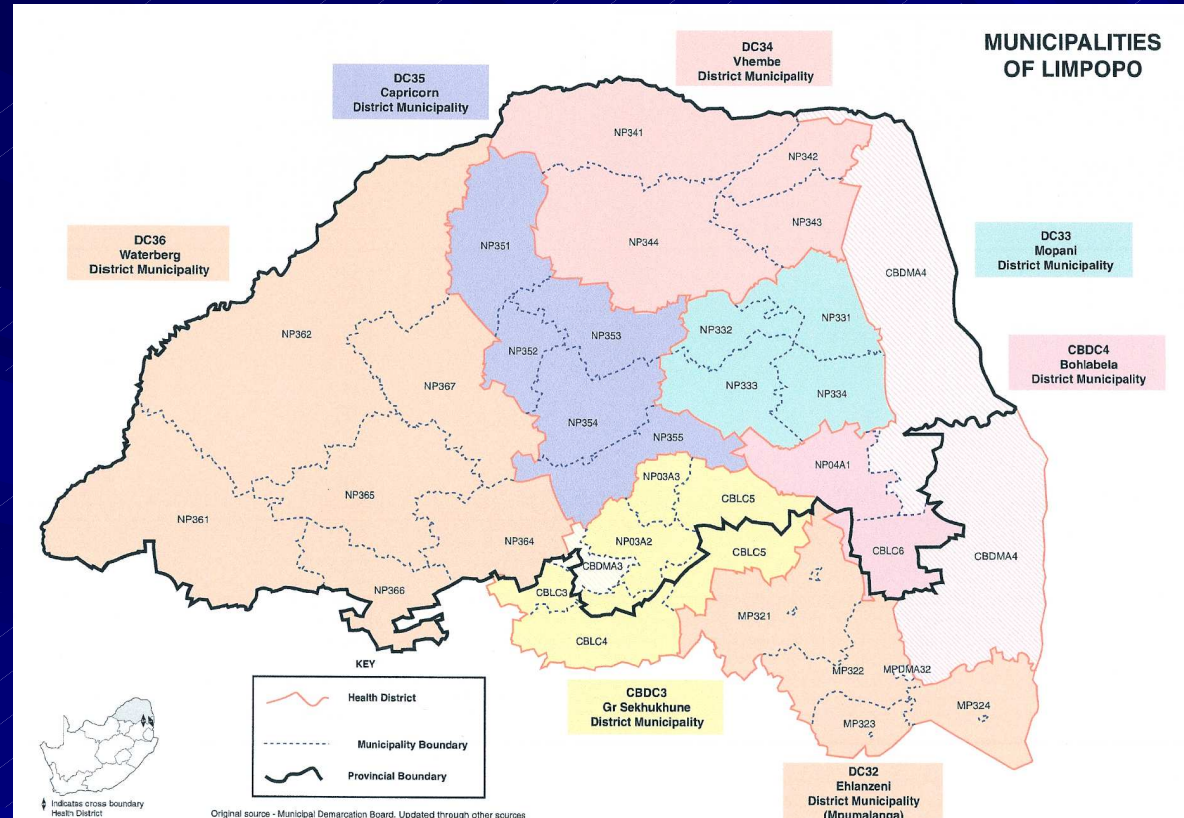


Future



LIMPOPO

Formerly Northern Province



LIMPOPO

- Land mass 124 000 km² (~10% of the country)
- Population 5.67 million (~12% of popⁿ)
- Popⁿ density 45.5/km², mostly rural (86.7%) black S Africans

Limpopo

Demography

- No of births ~140 2900
 - Fertility rate 3.7/woman (2.8)
 - U5MR 57/1000 live births
 - Life expectancy 56 years (50.7)
-
- Piped water 73.3%
 - Sanitation 85.1%



Limpopo

Health care

- 48 hospital (2 tertiary, 6 secondary, 37 primary)
- Support 443 clinics, 26 CHCs, 130 mobile clinics.
- 07/08 health budget-
R5429 million (~US\$775 m)
10.6% national health budget



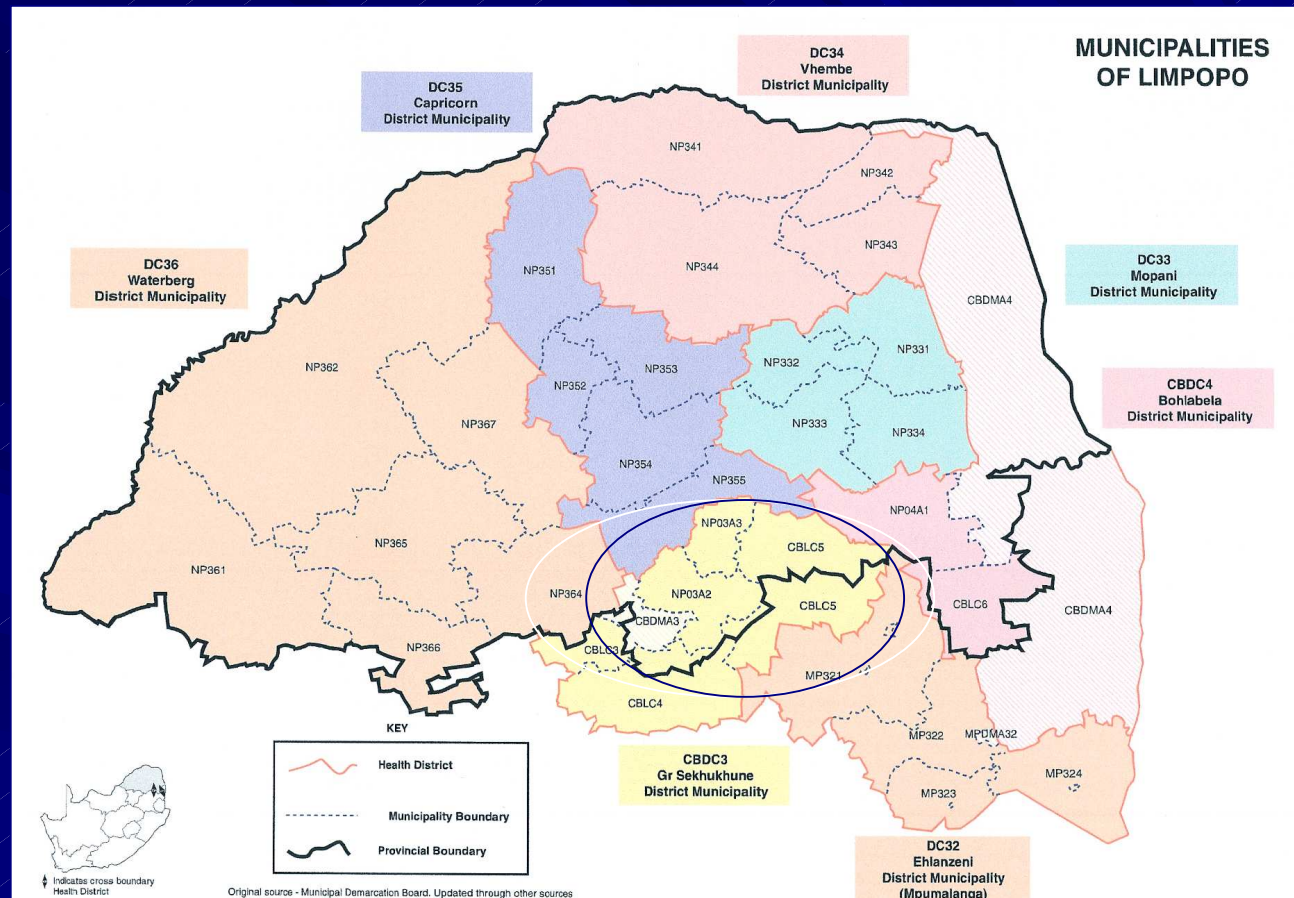
Limpopo

Health care

- ANC coverage 93.4%
- Assisted birth 87.7%
- 88% clinics with EPI
- 97% clinics with FP
- Doctors 780+75 specialists(26.8% posts vacant)
- Nurses 5827 (15% posts vacant)



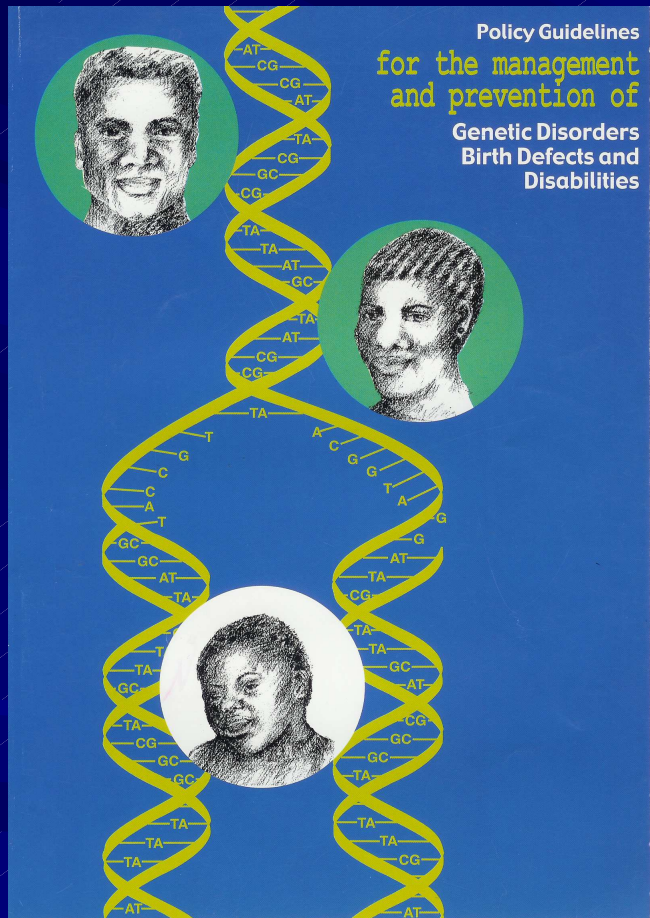
Greater Sekhukhune



- 1 secondary care & 6 district hospitals
- 65 clinics & 4 community care centres
- ~18 400 annual births

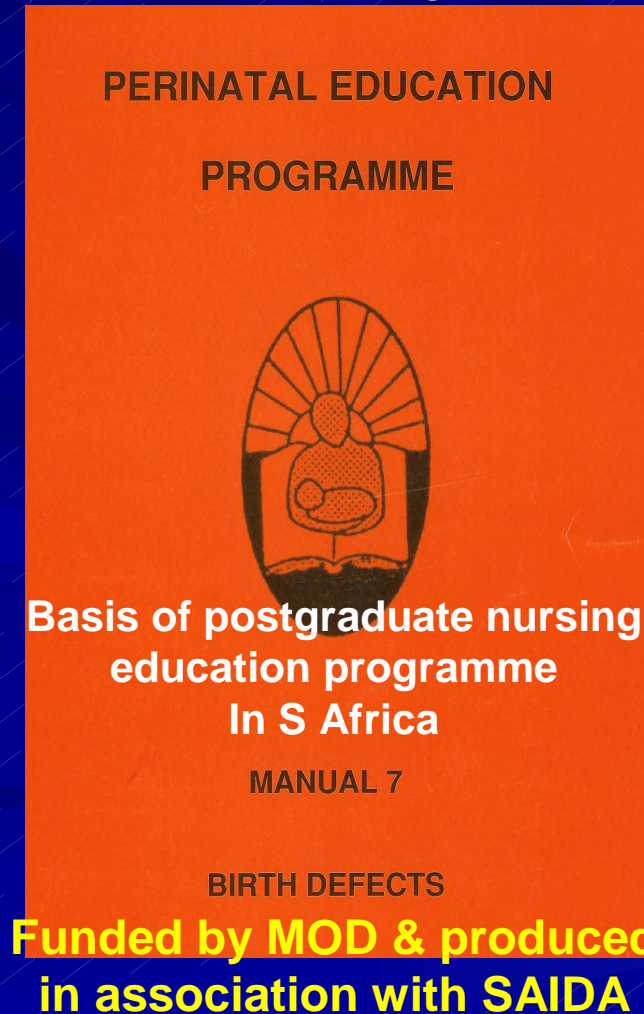
Proposed Greater Sekhukhune Outreach Programme

Clinical services



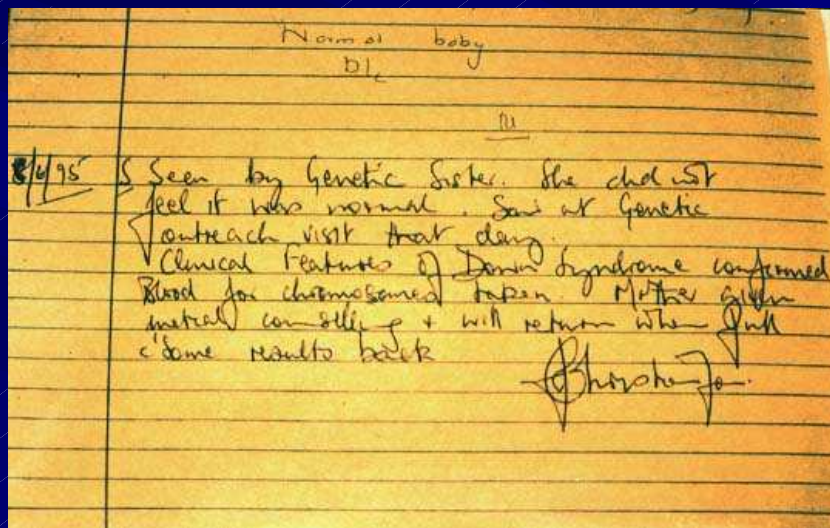
Christianson A L *et al.* Community Genetics 2000.

Medical Genetic Education Programme



Proposed Greater Sekhukhune Outreach Programme

Further evaluation of the MGEP



- Improves genetic knowledge & skills
- Need to assess if improves clinical practice
- Use the clinical diagnosis of Down syndrome to assess if practice is improved
 - Use LIMPOPO to introduce MGEP by teleconferencing

Proposed Greater Sekhukhune Outreach Programme

The previous outreach programme to Limpopo was instrumental in developing principle and practices for the development of clinical genetic services in SA.

This outreach should assist in furthering that process, but can be used as a clinical laboratory to test the implementation and clinical utility of medical genetic tests.



Proposed Greater Sekhukhune Outreach Programme

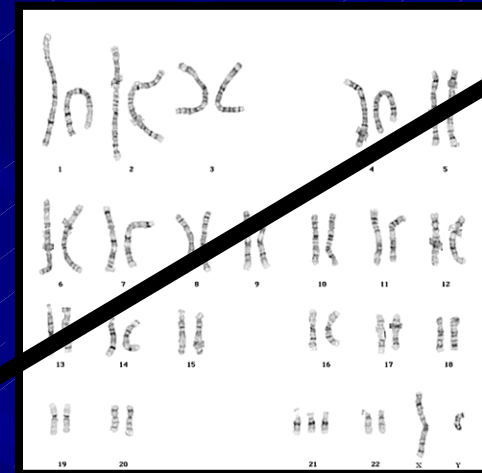
In developing future laboratory diagnostic testing for South Africa the future appears to lie in applying DNA based tests as soon and widely as possible.

The goal of this process is to develop a diagnostic laboratory service that complements the clinical service available, and is

‘better, cheaper, faster...’

There are numerous issues

But the time is right to confront them!



The future DNA based diagnostic testing