

# Speech and Language Delays in Children with Neurodevelopmental Disorders in South Africa

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# Background

- Speech and language skills provide a child with the ability to express wants and needs, interact socially, and gain information about the complex world in which we live.
- A significant impairment in the development of speech and language has far reaching consequences for a child's long-term development including education and employment.
- Children with neuro-developmental disorders are at extremely high risk for speech and language disorders secondary to their primary condition.
- This project brings together researchers from the United States and South Africa to examine the patterns of language disorders in children with neuro-developmental disorders.

# Background

- South Africa provides a unique setting for the study of this issue.
  - It is a country where 11 national languages are immersed within a range of socio-economic and cultural contexts.
- This study will extend the knowledge related to speech and language delays in children with neuro-developmental disorders from different language backgrounds.
  - Adaptation of assessment tools to this context must be informed by observation and rigorous information about the caregiver's perception of language development.

# SPECIFIC AIMS

- AIM 1: To conduct a cross-sectional pilot study to examine the speech and language delays in children, ages 3-8 years, who come from the four predominant language groups (i.e., Afrikaans, English, Setswana and Zulu) in northern South Africa.
  - to develop measurement tools to identify speech and language delays in children with neuro-developmental disorders within specific language contexts so that appropriate behavioral interventions can be provided to the children.

# SPECIFIC AIMS

- AIM 2: Given the substantial need to develop qualified behavioral investigators in South Africa, we will also provide training to develop expertise about measurement and research design. We expect to contribute to the long term goal of building sustainable capacity in behavioral research on speech and language delays at the University of Pretoria.
  - Institutional partnerships between Pretoria and colleagues at hospitals and other universities are being developed to enhance participant recruitment and research training with respect to measurement design and methodology for neurodevelopment disorders.

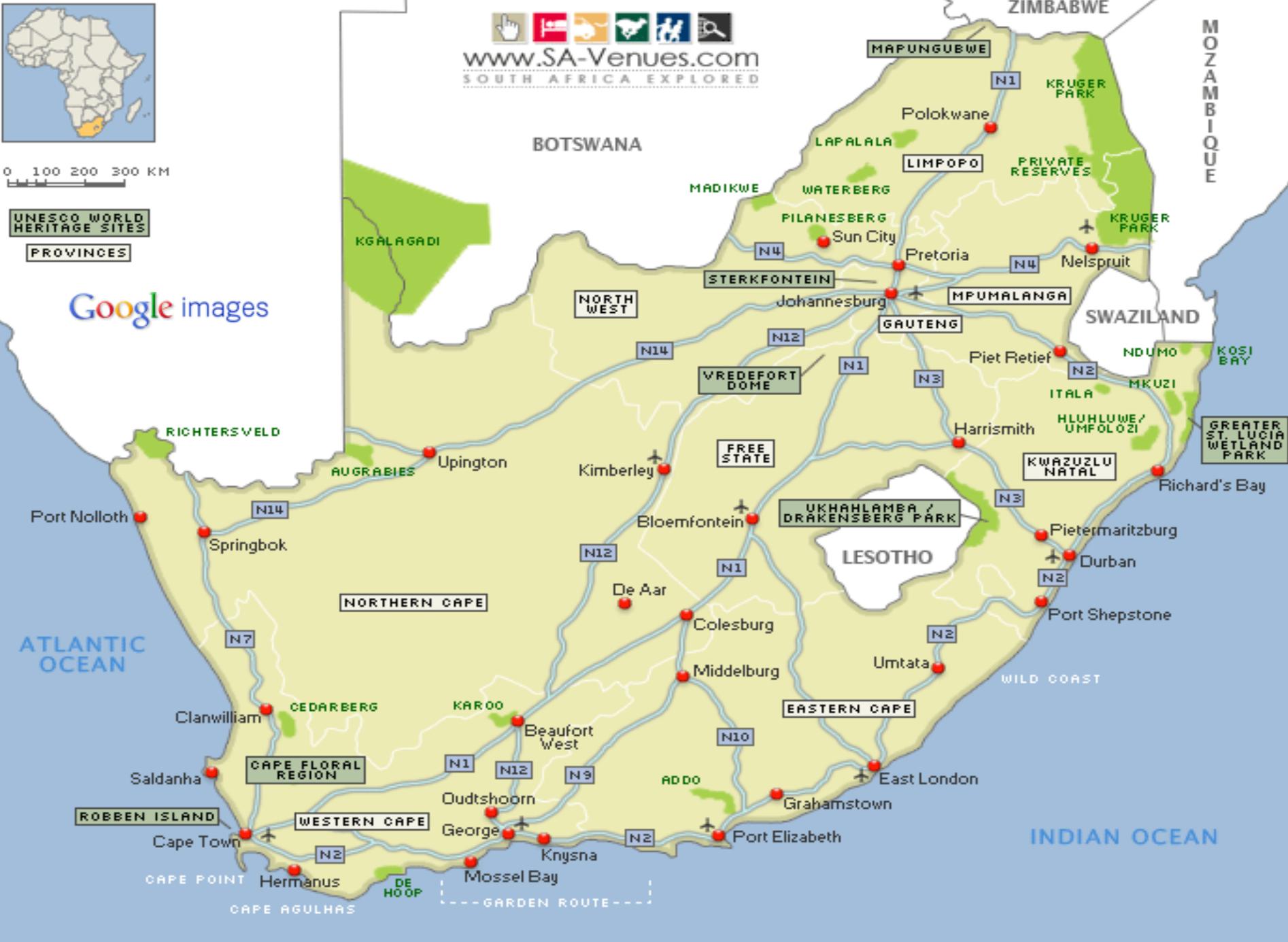


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SWAZILAND

LESOTHO

ATLANTIC OCEAN

INDIAN OCEAN

CAPE AGULHAS

GARDEN ROUTE

GREATER ST. LUCIA WETLAND PARK

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# Ongoing Activities: SPECIFIC AIM 1

- 2011 IRB approvals in place and renewed!
- January 2012 GSU Subcontract initiated to the University of Pretoria
- Assessment tools translated into four languages/cultures (Zulu, Setswana, Afrikaans, and English (cultural translation)) using linguistic/cultural protocol we developed:
  - Mullen Scales of Early Learning
  - Demographic information form
  - Caregiver Perception of Language Development
  - Developed Observation Protocol of caregiver-child interactions
- Prepared protocol materials for each language/culture
- Developed agreements with 3 government hospitals in northern South Africa
  - Chris Baragwanath Hospital– Soweto
  - Dr. George Markari Hospital– University of Limpopo teaching hospital
  - Steve Biko Hospital-University of Pretoria teaching hospital
- We are currently training hospital speech-language staff to administer the assessment protocols
  - Typical preschool children
    - norm the Mullen in each language
  - Children with neuro-developmental disorders – 25 in each language



Dr Sadna Balton, Director of Speech Therapy and Audiology Services With Dr. Bornman and Dr. Romski  
Chris Baragwanath Hospital



DR. GEORGE MUKHARI HOSPITAL

Entry For:  
Ambulance, Delivery  
Vehicles And  
Emergency Vehicles  
Only



BY 36 FB GP



**Training session for Speech Therapists  
at Steve Biko Hospital Pretoria**

# Ongoing Activities: SPECIFIC AIM 2

- As we began the project, the University of Pretoria provided supports for a post-doc fellow who was trained at Georgia State in developmental psychology
  - A doctoral level person on the ground in South Africa has permitted us to provide both group training and individual supports in statistics and methodology for the staff in Pretoria and at the teaching hospitals
- Behavioral research ethics training
- Renegotiating university agreements
- Working with the University of Pretoria on their FCOI policy

- Thank you!