

North West Experience with the Recent Measles Outbreak in South Africa

Presented

at

North West 2007 EPI Symposium: Orion Safari Lodge

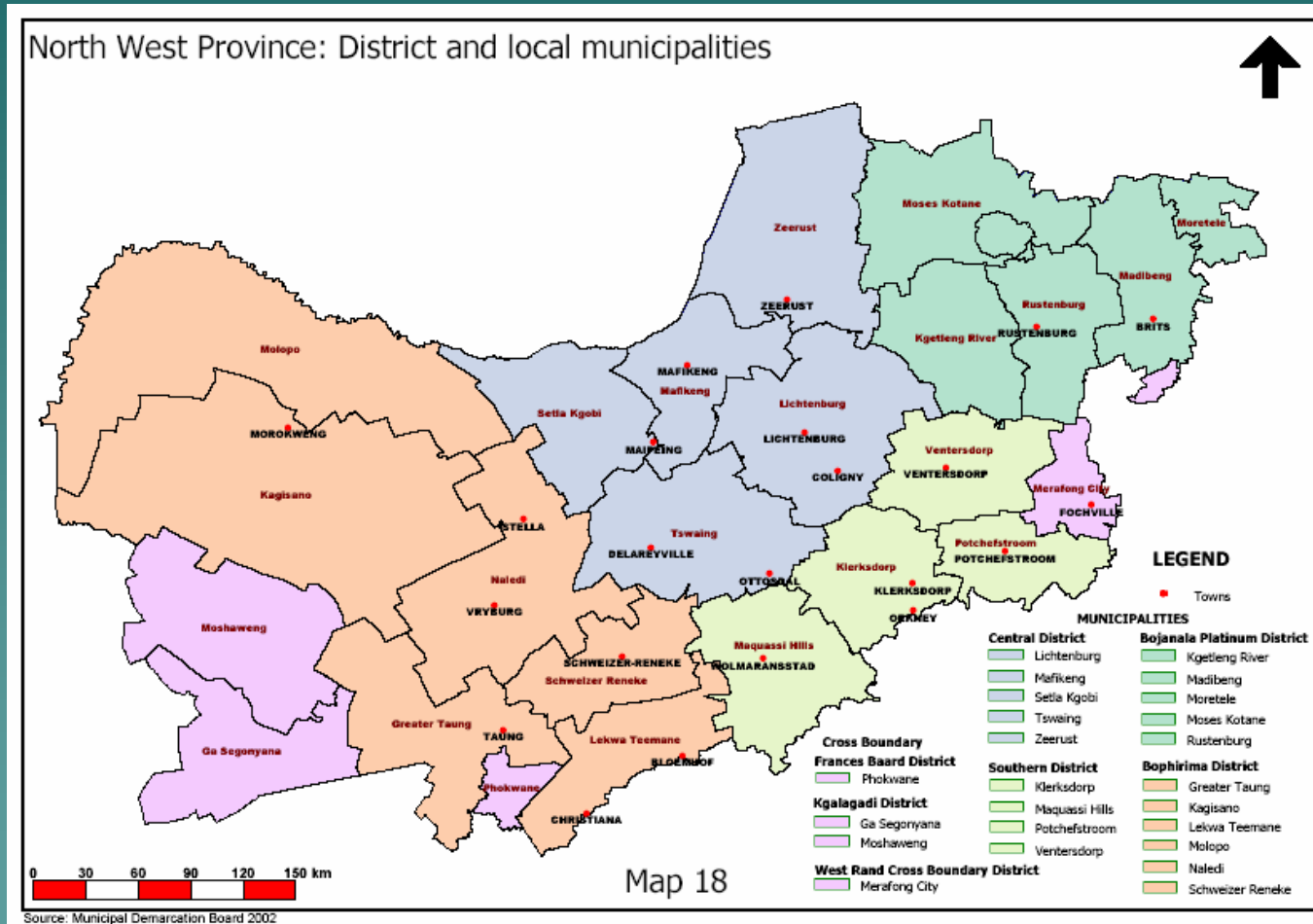
by

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23 August 2007

A stylized silhouette of a mountain range in shades of teal, located at the bottom right of the slide.

Map of the North West Province



Background

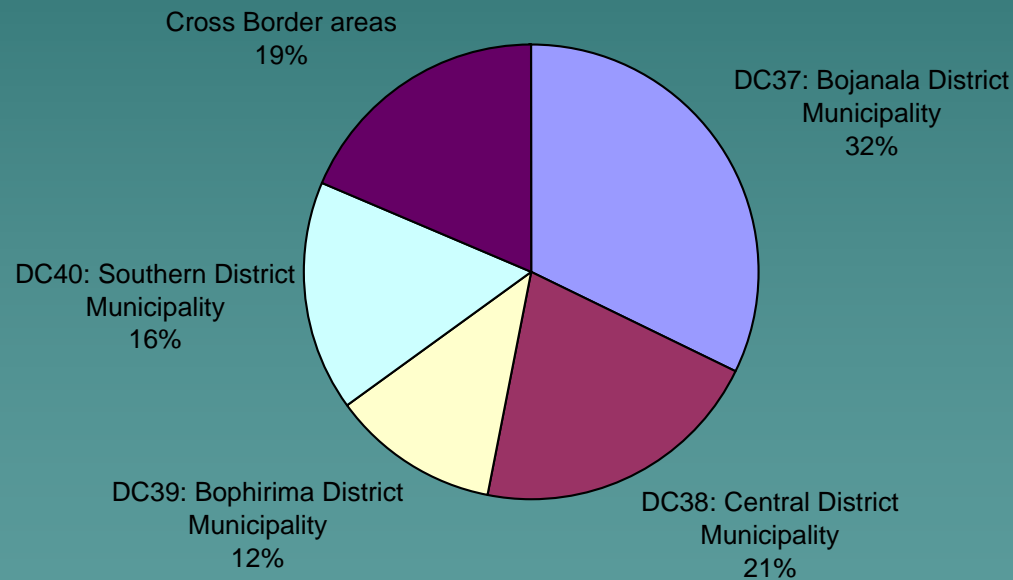
- ◆ The North West Province is predominantly rural (64.4%).
 - ◆ Comprises four Municipal Districts
 - ◆ Cross borders with other provinces and countries
 - ◆ Population 3,6m
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Geographic Distribution of the Population: North West Province

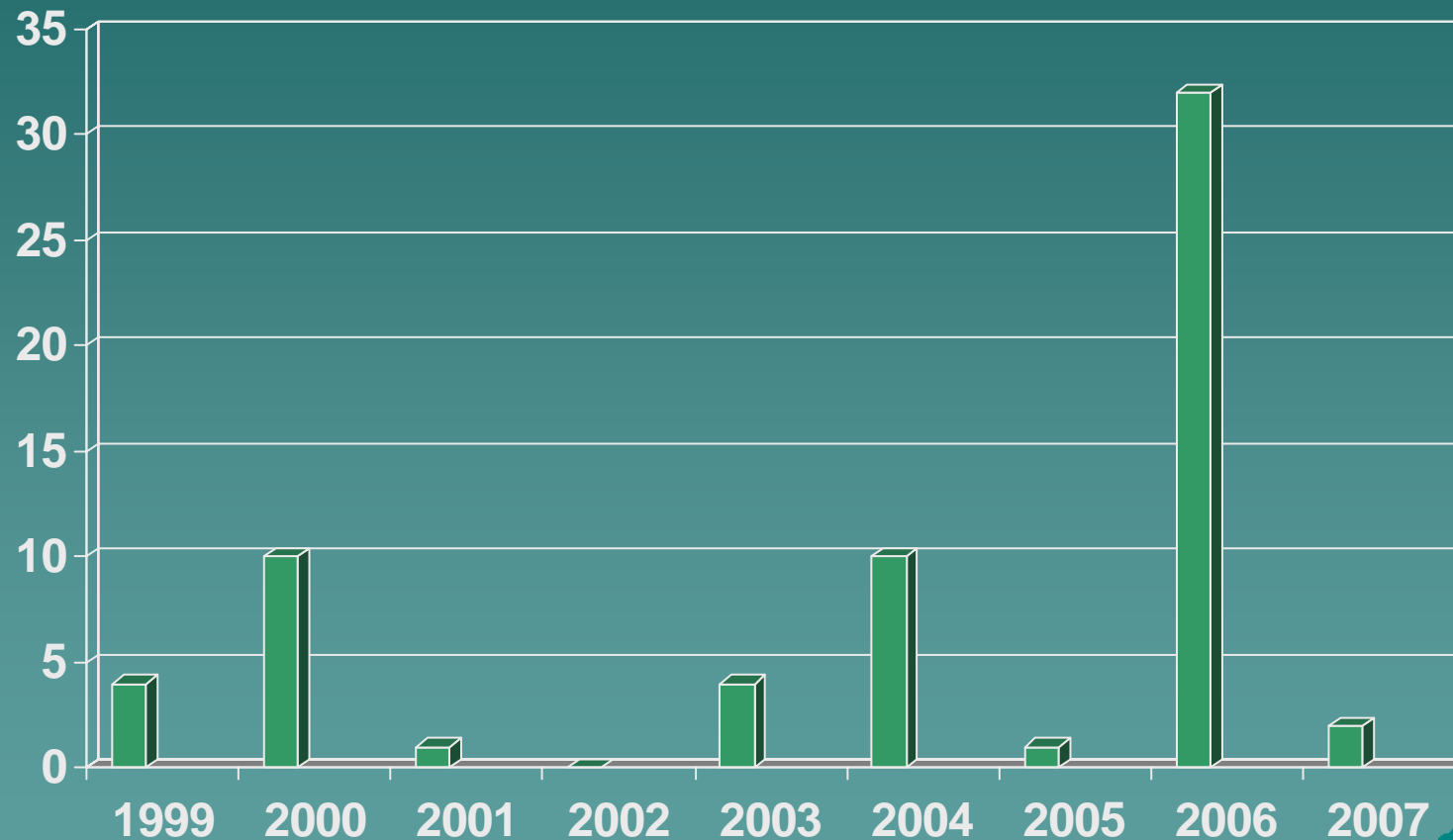
District	Population	% Population
Bojanala	1,185,332	32%
Bophirima	439,680	12%
Central	762,994	21%
Southern	599,665	16%
Cross Border Areas	681,678	19%
Total	3,669,349	100%

Graphical Representation of % Population Distribution Among the Districts of North West Province.

Table: Census 2001 by district council.



Annual Incidence of Measles: North West Province: 1999-2007



Measles Outbreak in the North West

- ◆ Province experienced measles outbreak in 2006
- ◆ Central District
- ◆ Mafikeng Sub-District
- ◆ First case reported in July 2006
- ◆ Last case reported in November 2006
- ◆ No deaths, admission rate: 50%
- ◆ Investigations begun after report of the first case

Methods

- ◆ Information obtained from CIF (inadequate)
- ◆ Survey undertaken in October 2006
- ◆ Aim was to obtain in-depth information around the outbreak to inform appropriate interventions
- ◆ 21 households of affected children identified
- ◆ Visitation to affected households
- ◆ Questionnaire administered to parents/caregivers by interviewers.


Findings

- ◆ 26 reported cases in the outbreak
- ◆ 77% response rate (20 of 26 cases)
- ◆ Ten villages in the Sub-District affected
- ◆ Villages adjacent to one another
- ◆ Six schools in affected villages
- ◆ 70% of cases school going
- ◆ Non schooling going cases were linked with school going cases

Reason for Non Immunisation

Relationship	Reason	Number	%
Mother=7	Don't know	11	55
Mother	Child very ill	4	20
Mother	Didn't know if vaccination needed	1	5
Mother	Don't believe in vaccination	2	10
	Under age	1	5
Mother	Health centre far	1	5
Total		20	100

Results

- ◆ Age Distribution
 - ◆ Geographic distribution
 - ◆ Immunisation status
 - ◆ Reason for non immunisation
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- A decorative graphic at the bottom right of the slide, consisting of a series of overlapping, jagged shapes in various shades of teal and blue, resembling a mountain range or a stylized landscape.

Age Distribution of cases

Age Group	No. of Cases	% cases
0-5	7	27
6-10	12	46
11-15	5	19
>15	2	8
Total	26	100

Geographic Distribution of Cases

Village	No. of Cases	% Cases
Dithakong	1	4
Dibate	1	4
Lomanyaneng	4	15
Majemantsho	6	23
Makhubung	1	4
Mocoseng	7	26
Setlopo	2	8
Tontonyane	1	4
Lekoko	1	4
Motlhabeng	2	8
Total	26	100

Immunisation status of Cases

Immunisation status	%
Incompletely immunised	16 (80%)
Not immunised	7 (35%)
Fully immunised	1 (5%)
Don't know	2 (10%)

Reason for Non Immunisation

Relationship	Reason	Number	%
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Total		20	100

Interventions

- ◆ Sub-District immunisation campaign in Sept. 2006
- ◆ Cases continue to occur
- ◆ Well planned District immunisation campaign in December 2006
- ◆ No case reported after the campaign
- ◆ Last case reported in November 2006

Discussion

- ◆ All age groups affected
- ◆ Age groups mostly affected: 6-10 yrs (46%) followed by 0-5 yrs (27%)
- ◆ >15 yrs least affected
- ◆ All cases had epidemiological linkage: village or school
- ◆ A significant percentage (80%) was incompletely immunised (dropout rate)
- ◆ Knowledge and beliefs played a major role in failure to immunise

Lessons Learnt

- ◆ Low immunisation coverage causes outbreaks
- ◆ False contraindications contribute to low immunisation coverage
- ◆ A need to strengthen social mobilisation in the EPI programme
- ◆ A need to strengthen health worker education in EPI
- ◆ All outbreaks to be properly investigated
- ◆ Proper planning necessary for outbreak responses.

Conclusion

Indeed immunisation is the most cost effective public health intervention. If neglected, the programme has a potential of becoming a crisis and very costly (finances, time, energies).

Thank you

