
MASS IMMUNIZATIONS: DO THEY BENEFIT OR HARM IMMUNIZATION COVERAGE

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PRICELESS SA
Priority Cost Effective Lessons
for System Strengthening

Message

The reduction in routine immunization coverage associated with the occurrence of mandated catch up campaigns raises the legitimate concern that they may negatively impact health systems' functioning

WHO Guidance 2011



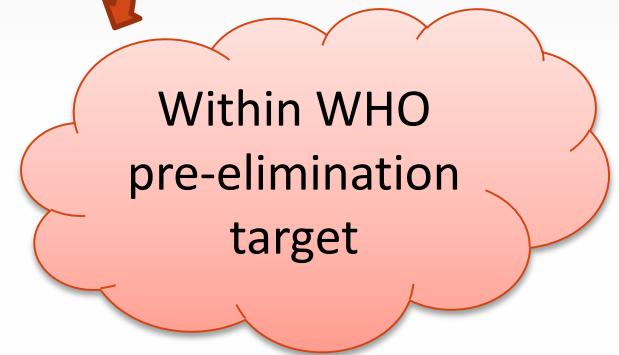
- Whatever the degree of control of measles in a country, high measles vaccine coverage in every new birth cohort through routine services is necessary to control measles and sustain the achievement over time
- SIAs should be accompanied by simultaneous actions aimed at improving routine services



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MEASLES in SA

- Incidence in 2016 - **0.31 per 1000 000**
- **Regional goal to achieving measles elimination by 2020**
 - >95% coverage of MCV1 at national /district level
 - >95% SIA coverage in all districts
 - Reducing to and maintain annual measles incidence <1 case per million

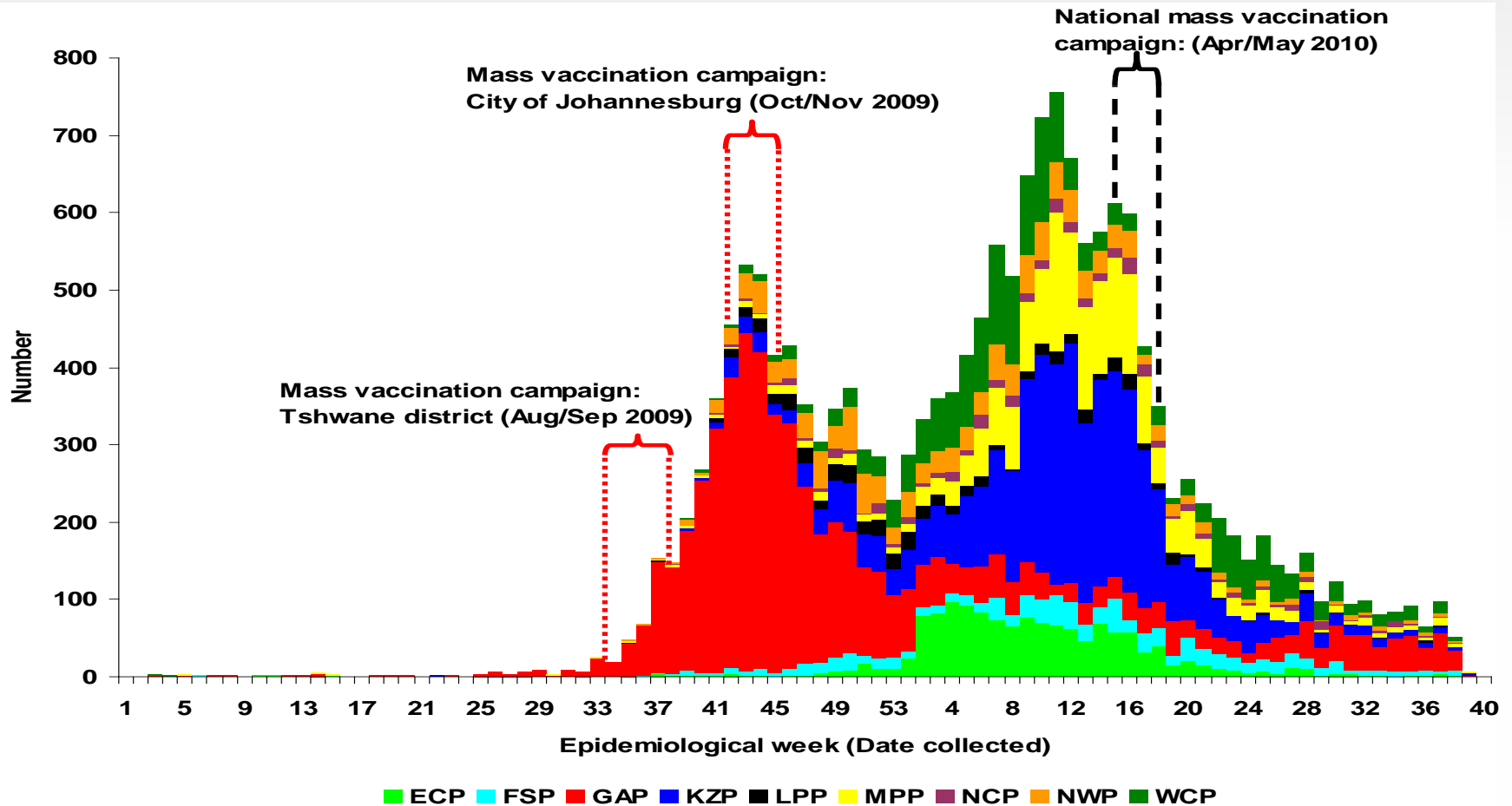


MEASLES OUTBREAK, 2009-10

18000 lab confirmed cases nationally
over 18 months



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IMPACT OF SIAs ON IMMUNIZATION AND HEALTH SYSTEMS IN SOUTH AFRICA

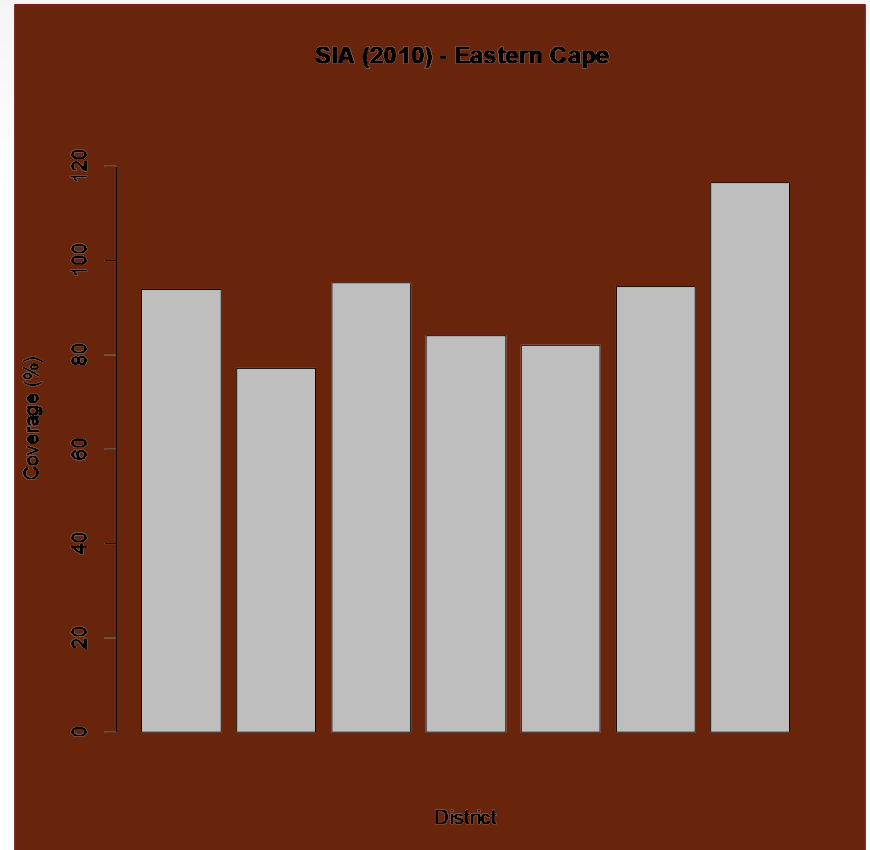
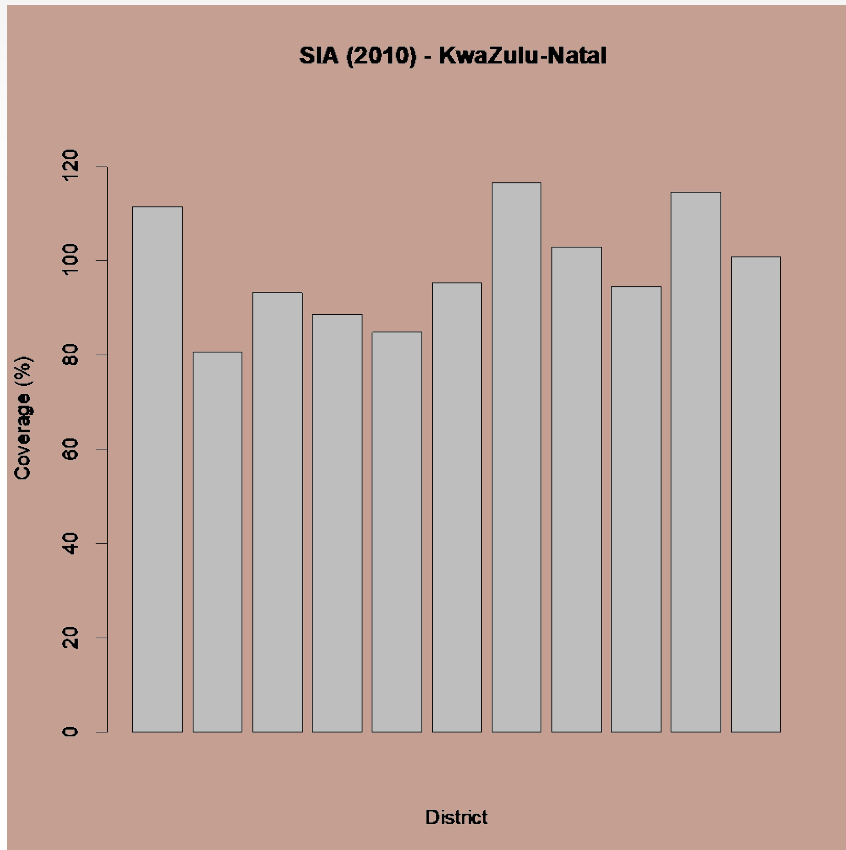


COSTS AND DISEASE AVERTED

- 2010 campaign cost \$37 million
- Range: \$8 million EC and KZN to \$500,000 N Cape
- Most costs incurred by MCV
 - MCV alone \$35 million
 - VAS alone \$23 million

	Averted deaths	DALYs	ICER
CH platform	1,171	37,351	823
Vit A	818	26,229	848
Measles	353	11,104	2,564

SIAs coverage per district/ province is variable





HIGH OPPORTUNITY COST OF SIA

- SIAs requires mobilization of large health workforce *from within health system*
- Adverse impact on health services during SIA campaign month in 52 districts over 10 years (2001 – 2010)
 - **30% decrease in children completing primary course of immunization**
 - **10% decrease in antenatal visits**
 - **12-17% decrease in use of injectable contraceptives**



OUTCOME OF ECONOMIC EVALUATION OF SIA

2010 SIA in SA

- Significant heterogeneity across provinces
- \$37 million on a nationwide campaign may not be best allocation of scarce government resources
- Health gain largely due to Vitamin A supplementation
- Measles lives saved contributes ~ 15% of health gain
- Measles vaccination alone not cost-effective



POLICY CONSIDERATIONS FOR FUTURE SIAS

1. Improve targeting of SIAs - focus on high risk and vulnerable

- Zero-dose children
 - Research finds ave. 66% of zero-dose children were reached
- *Other groups include: children of internal and external migrants; in informal settlements; vaccine resistant parents; population near borders*

2. Optimize scheduling of SIAs

- Decrease length to 1 week
- Start over weekend
- Ideal periodicity – determined by **population demographics** and existing routine **immunisation coverage**

Measles control strategies use huge resources



- **Optimizing country planning of activities**
 - Consider varying capacity across provinces
 - Focus on vulnerable groups to mitigate pockets of unvaccinated children

- **Invest in routine health systems and primary immunizations**
 - Focus on supply - more staff required
 - Create demand – incentivize immunization

- **Determine optimal combination of routine immunisation and SIA**



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Global guidance should be considered, but local circumstances and evidence should inform the strategy

THANK YOU
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- **Measles control in sub-Saharan Africa: South Africa as a case study.** *Vaccine*. 2012; 30 (9):1594-1600. Verguet S, Jassat A, Tollman S, Murray CJL, Jamison DT, Hofman K
- **Supplementary immunization activities: full economic evaluation of a child health delivery platform in South Africa.** *Global Health Action*, 2013, 1 (6) :1-9. Verguet S, Jassat W, Bertram M, Tollman S, Murray CJL, Jamison DT, Hofman K
- **Impact of supplemental immunization activity campaigns (SIA) on health systems: findings from South Africa.** *Journal of Epidemiology and Community Health*, on line 2013, 10.1136/jech-2012-202216. Verguet S, Jassat W, Bertram MY, Tollman SM, Murray CJL, Jamison D and Hofman KJ

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