Vitamin A supplementation in Tanzania: the impact of a change in programmatic delivery strategy on coverage

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Abstract

Background: Efficient delivery strategies for health interventions are essential for high and sustainable coverage. We report impact of a change in programmatic delivery strategy from routine delivery through the Expanded Programme on Immunization (EPI+) approach to twice-yearly mass distribution campaigns on coverage of vitamin A supplementation in Tanzania

Methods: We investigated disparities in age, sex, socio-economic status, nutritional status and maternal education within vitamin A coverage in children between 1 and 2 years of age from two independent household level child health surveys conducted (1) during a continuous universal targeting scheme based on routine EPI contacts for children aged 9, 15 and 21 months (1999); and (2) three years later after the introduction of twice-yearly vitamin A supplementation campaigns for children aged 6 months to 5 years, a 6-monthly universal targeting scheme (2002). A representative cluster sample of approximately 2,400 rural households was obtained from Rufiji, Morogoro Rural, Kilombero and Ulanga districts. A modular questionnaire about the health of all children under the age of five was administered to consenting heads of households and caretakers of children. Information on the use of child health interventions including vitamin A was asked.

Results: Coverage of vitamin A supplementation among 1–2 year old children increased from 13% [95% CI 10–18%] in 1999 to 76% [95%CI 72–81%] in 2002. In 2002 knowledge of two or more child health danger signs was negatively associated with vitamin A supplementation coverage (80% versus 70%) ($p = 0.04$). Nevertheless, we did not find any disparities in coverage of vitamin A by district, gender, socio-economic status and DPT vaccinations.

Conclusion: Change in programmatic delivery of vitamin A supplementation was associated with a major improvement in coverage in Tanzania that was been sustained by repeated campaigns for at least three years. There is a need to monitor the effect of such campaigns on the routine health system and on equity of coverage. Documentation of vitamin A supplementation campaign contacts on routine maternal and child health cards would be a simple step to facilitate this monitoring.