Author's response to reviews

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

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Author's response to reviews: see over
Response to reviewer (Rolf Klemm’s) comments

Comment 2.1
Variables included in the construction of the asset index have now been included in the data analysis section of the paper.

Comment 2.2
Statement on cluster-sample methods has been rephrased to read “Since villages (clusters) were our unit of sampling, and children in the same cluster tend to be more similar to each other than those from a simple random sample of the whole population, individual analysis methods would tend produce standard errors that are artificially small. Hence we employed cluster-sampling analysis methods in STATA to obtain correct standard errors and confidence intervals for our parameter estimates. We used standard STATA svytab command to produce design-based F-tests.”

We have added three references on survey methods to further expand on the analytical approach used in this study.


Comment 2.3
The household survey for our study was carried out in July-August of 1999 whereas the sub-national measles campaigns were held in the 3rd week of September 1999 for two days. So the 1999 IMCI evaluation of the Morogoro Rural reflects the situation before piloting of the measles/VAS campaigns in the whole district. It is however true that the pilot in 1999 could have contributed to the good coverage in 2001. But the fact that the overall national coverage of VAS during the June and
December 2001 nationwide campaigns were 80% and 91%, respectively, the high coverage of Morogoro is equally more likely to have been influenced by the change of strategy from the EPI+ (i.e. routine EPI + VAS since 1997) to the twice-yearly social mobilization campaigns than sub-national campaigns held in the district in 1999. The rationale of including Morogoro Rural data before (1999) is that, the pilot campaigns came after our study and we therefore feel this is a fair before and after comparison.

Comment 2.4
The difference in coverage between our study and that reported by Mugyabuso et al has been answered in point 2.3 above. His report covers a period after the sub-national measles pilot campaign (late 1999) while our covers a period before that (mid 1999).

Comment 2.5
Second paragraph of the introduction section has been rephrased to clarify that vitamin A before its introduction into the routine EPI scheme and later through the campaign approach, was given as a treatment and not as a supplement to children suffering from xerophthalmia or vitamin A deficiency.

Comment 2.6
The differences between coverage figures of 15.2% and 94% in Morogoro districts in 1999 can partly be explained by the way the questions on vitamin A supplementation were phrased in the two surveys. However, the main reason is what we have already explained above (see 2.3) that the IMCI evaluation was done almost a month before piloting the integrated measles and VAS campaigns in 1999. It should also be noted that the 85% reported by HKI was a national coverage figure for children between 6 months and 5 years. Our study on VAS coverage is confined to children between 1 and 2 years old. There is no evidence that these districts are ‘normally’ any different from national average for other health service statistics.
Comment 2.7
A statement on ethical clearance has been included in the methods section as suggested.

Comment 3.1
We used local event and farmer’s (season) calendars to help the mothers in recalling the date of the child’s last vitamin A supplement. We also used MCH cards to provide information about receipt of VAS in the 6-months preceding the survey. According to health personnel the campaigns were carried out in June and December, and the mother’s recall data shows strong heaping around these months.

Comment 5.1
We agree that data from tally sheets would be useful to substantiate our discussion, however were not able to obtain these for analysis.

Comment 6.2
A statement mentioning both strategies and target groups has been included in the methods section of the abstract and it reads as follows:
“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 (2002), after the introduction of twice-yearly vitamin A supplementation campaigns for children aged 6 months to 5 years, a 6-monthly universal targeting scheme
Response to reviewer (Joanne S Katz’s) comments

Comment 1
We have rephrased our conclusion to be more cautious than before on the role of vitamin A supplementation on coverage. This now reads “Change in programmatic delivery of vitamin A supplementation was associated with a major improvement in coverage” Initially it read “Change in programmatic delivery of vitamin A has been shown to achieve major improvements in coverage.”

Comment 2
A paragraph to elaborate on the efforts done during the facility based IMCI study to rule out any contextual factors that might have caused the dramatic increase in VAS coverage has been included and it reads as follows, “Thirdly, the increase in vitamin A supplementation coverage may have been due in part to other factors and not to the change in the delivery strategy above. However, we are not aware of any factors that could be responsible for the dramatic increase in coverage despite a comprehensive investigation of contextual factors.”

Comment 3
A statement on multivariate analysis has been added in the results section at it reads “Multivariate analysis of the association between maternal education, knowledge of danger signs and vitamin A supplementation gave similar conclusions (data not shown)”

Comment 4
Point noted. One reference from Nepal has been added to enhance the discussion.