Subnational trends and inequalities of under immunization and zero dose among children aged 12-23 months in Uganda

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Targets according to the Global Vaccine Action Plan (GVAP)

- National coverage for all routine immunization vaccines: at least 90%.
- Subnational level: at least 80%.

Objectives of the study

a) Examine the subnational trends of under-immunization and zero dose among children aged 12-23 months in Uganda.

b) Assess the inequalities of under-immunization and zero dose among children aged 12-23 months in Uganda.
Under immunization is the percentage of children aged 12-23 months who did not receive at least one of the following vaccines: one dose of BCG, three doses of polio, three doses of pentavalent, and one dose of measles vaccine.

Zero-dose is the percentage of children aged 12-23 months who have not received a single dose of the four basic vaccines (BCG, polio, DPT/pentavalent, and measles).
RESULTS: Half of Ugandan children are under-immunized.

Percentage of under-immunized children - National

Prevalence of zero-dose - National

 UDHS

2006 2011 2016 2022

Percentage

54% 48% 45% 46%

Prevalence

7% 4% 1% 2%
Major progress 2006-2016 in all regions but not in North Buganda and Busoga

- Progress highest in Southwest, West-Nile, and Western
- North Buganda has stagnated
Inequality gap between the least and most privileged has narrowed.

**Place of residence**

- 2016
- 2011
- 2006

**Education level**

- Proportion of under-immunized children:
  - No education
  - Primary
  - Secondary/Higher

**Household wealth**

- Proportion of under-immunized children:
  - Lowest
  - Second
  - Middle
  - Fourth
  - Highest
Widening gap between national and best performing region in under-immunization

The gap between the best and worst performing region has increased over time.

While efforts are made to improve immunization coverage nationally, two regions are still lagging behind.
Conclusions

- Under-immunization is a useful indicator to assess inequalities with survey data.

- Zero-dose shows a similar pattern but its prevalence is low, limiting the equity analyses (1% by 2016).

- Regional differences are large and can be complemented with further assessment of district coverage trends using health facility data.

- Programmatic implications: Re-assess existing strategies to reach high coverage in all regions and allocate additional funding and resources to regions with lower immunization coverage.