Assessing equity of an integrated sanitation approach in 11 countries

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Introduction

Is there equity in sanitation uptake across vulnerable groups?

• SDGs target 6.2: By 2030, achieve access to adequate and **equitable** sanitation and hygiene for all and end open defecation, **paying special attention to the needs of women and girls and those in vulnerable situations**

• The focus of our study is on equity of the Sustainable Sanitation and Hygiene for All (SSH4A) program
  • What is the success rate in improving access in sanitation coverage, comparing those who are vulnerable to those who are not?
Methods

Is there equity in sanitation uptake across vulnerable groups?

• Data from 11 countries from projects implemented by SNV
• Cross-sectional household surveys in same areas over time
  • At baseline and three follow-ups
• Multi-dimensional intervention

• Project timeline:
  
  
  Baseline  Round 2  Round 3  Round 4
Methods

Is there equity in sanitation uptake across vulnerable groups?

• Measured coverage of improved sanitation at baseline and each of the follow-up rounds

• Assessed equity of sanitation uptake across several vulnerability characteristics:
  • Wealth quintiles
  • Disability within Households (HH)
  • Elderly within HH
  • Female headed HH
Coverage of improved sanitation
Most countries saw improvement over time

32% (95% CI: 31%-33%) overall increase in sanitation coverage
How do results compare?

- Recent meta-analysis improved sanitation coverage from various intervention studies:
  - 14% (95% CI: 10%, 18%)
  - N=27 studies
- Previous slide showed SNV had an average increase of ~32% across 11 countries
Coverage by Socioeconomic Status (SES)

Higher coverage of improved sanitation among higher SES

Coverage of improved sanitation comparing lower and highest wealth quintiles

- Lowest two wealth quintiles: 23% difference
- Highest two wealth quintiles: 49% increase

Round 1: 23% difference
Round 2: 19% difference
Round 3: 27% increase
Coverage by Households (HHs) with/without disability

Similar coverage of improved sanitation between households with and without disability

Overall coverage of improved sanitation comparing HHs with and without disability

HHs with any disability
- Baseline: 10%
- Round 2: 34%
- Round 3: 30%

HHs without any disability
- Baseline: 10%
- Round 2: 3%
- Round 3: 3%
Coverage by sex of head of HH

Similar coverage of improved sanitation between male headed and female headed households

Overall coverage of improved sanitation comparing female and male headed HHs
Coverage by HHs with/without elderly

Similar coverage of improved sanitation between HHs with and without elderly

Overall coverage of improved sanitation comparing HHs with and without an elderly

HHs with an elderly: baseline - 4% difference to round 2, then 34% increase to round 3.

HHs without an elderly: -4% difference to round 2, then 31% increase to round 3.
Used model to simultaneously control for all variables

**SES is the vulnerability that most inhibited coverage improvements**

- Impact among population without any of the four vulnerability risk factors:
  - $47\%$ increase from baseline to round 3 (95% CI: 45%-49%)

- Impact among pop. with all four of the vulnerability risk factors:
  - $25\%$ increase from baseline to round 3 (95% CI: 21%-30%)

- Which four of the vulnerability risk factors is driving this association?
  - $47\%$ increase among HHs with disability (95% CI: 42%-51%)
  - $49\%$ increase among HHs with elderly (95% CI: 48%-52%)
  - $45\%$ increase among HHs with female head (95% CI: 42%-47%)
  - $26\%$ increase among poor HHs (95% CI: 25%-28%)
Conclusions and implications

• Program is increasing coverage, even among most vulnerable groups that were assessed
  • HHs with low SES were less likely to have improved sanitation although low SES households still showed considerable improvement over time

• The program made considerable efforts to reach these vulnerable groups and to track progress among these groups
  • Future efforts and technologies should continue to emphasize reaching each of these vulnerable groups
  • Is persistent time in an area helpful to eventually reaching those vulnerable groups?
Limitations

• The results we present today were limited to sanitation coverage and not use
  • We have other variables that look at use and show similar trends
• Aggregation of data across the 11 countries might hide country-level trends in coverage
• No qualitative component to further explore why we got our observed results
• Generalizability:
  • Findings are generalizable only to rural settings in these countries
  • Findings might not be generalizable to late adopters
  • However, inclusion of many countries improves generalizability
Acknowledgements

• This research is jointly supported by:
  • the Australian Government, UK Department of Foreign Affairs (DFID)
  • SNV
• Sustainable Sanitation and Hygiene for All is supported by:
  • the UK Department of Foreign Affairs and International Development (DFID) in Ethiopia, Uganda, Ghana, Zambia, Kenya, Mozambique, Tanzania, Nepal,
  • the Australian Government in Nepal and Bhutan,
  • the Stone Family Foundation in Cambodia
  • the Embassy of the Kingdom of the Netherlands in Indonesia
• Special thanks to Antoinette Kome and Gabrielle Halcrow
Thank You

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