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Strengthening Partnerships, Results
and Innovations in Nutrition Globally

Assessing Anemia Causes & Interventions at the District Level

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JSI/SPRING

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Overview

- 🍃 National anemia dashboard
- 🍃 Understanding the regional and district situation
- 🍃 District Guide and Tool

National Anemia Dashboard



ETHIOPIA National Anemia Profile



In pregnancy, malaria – a key cause of anemia – can be prevented by sleeping under an insecticide treated net and taking intermittent preventive treatment for malaria (IPTp).



In pregnancy, anemia can also be prevented by continuing to take deworming pills and IFA.



For infants, small children, and mothers, sleeping under a bednet, exclusive breastfeeding, and birth spacing reduce the risk of becoming anemic.



For small children, eating fortified foods, complementary feeding, micronutrient supplementation, and taking deworming pills can prevent anemia and promote healthy growth.



In adolescence: iron folic acid (IFA) supplements and deworming pills help prevent anemia. Family planning delays the age at first birth.



Challenges for Reducing Anemia in Ethiopia

In 2011, **less than 1%** of pregnant women in Ethiopia consumed 90 tablets of IFA.

Prevention of malaria in pregnancy is very low: **less than 1%** of pregnant women receive any IPTp (2005).

Exclusive breastfeeding in the first six months has plateaued over the past decade.

The adequacy of the minimal acceptable diet is low: In 2011, **only 7.5%** of children consumed animal protein within a day of the mother being interviewed.

Nearly **one-third** of adolescent girls (ages 15-19) expressed an unmet need for family planning (2011).



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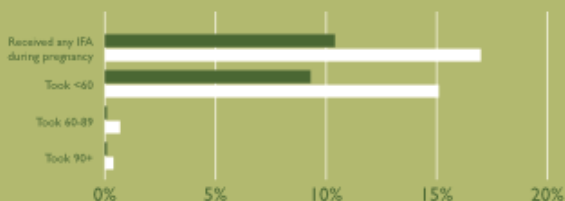
National Anemia Dashboard

Anemia is a Preventable Condition—Simple Interventions Can Have a Huge Impact

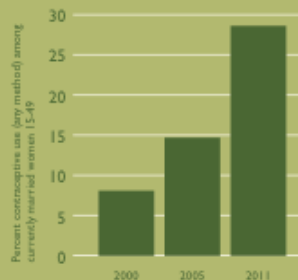
Increase iron uptake and stores

The Proportion of Pregnant Women in Ethiopia Receiving Iron Folic Acid Supplements and then Consuming them Increased from 2005 to 2011, but Remained Low, DHS Data.

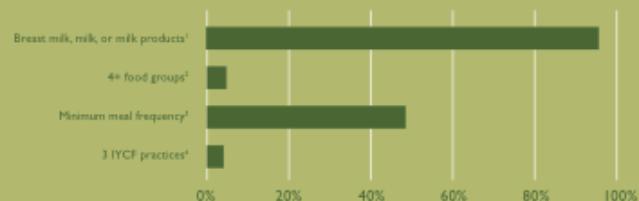
■ 2005
■ 2011



The Proportion of Currently Married Women Using Any Type of Contraceptive has Increased Steadily in Ethiopia from 2000 to 2011, DHS Data.



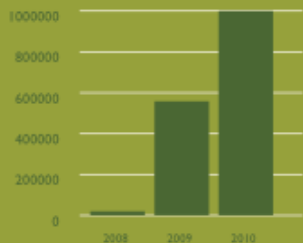
The Proportion of Children Under Two Years of Age in Ethiopia Consuming Eight Food Groups in the Previous Day or Night in 2011, DHS Data



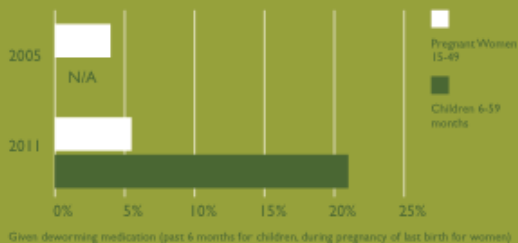
Reduce iron losses and infection in women and children.

The number of insecticide treated mosquito nets (ITNs) increased sharply from 2008 to 2010 in areas of Ethiopia where malaria is a public health problem, PMI data

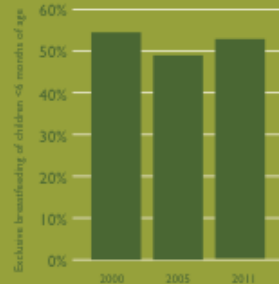
Source: President's Malaria Initiative (PMI) "Ethiopia." PMI Saving Lives in Africa President's Malaria Initiative 2014. <http://www.pmi.gov/countries/profiles/ethiopia.html> (accessed March 25, 2014).



Proportion of Children 12-59 Years of Age Receiving Deworming Medication in the Last Six Months, and Women Receiving Deworming Medication in their Last Pregnancy, Ethiopia, 2005 and 2011, DHS Data.

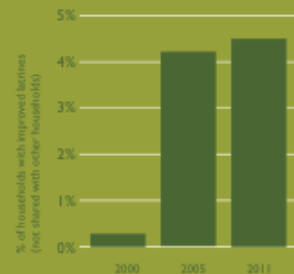


The Proportion of Infants Less Than 6 Months Old That Were Exclusively Breastfed Remained Steady at about 50% in Ethiopia from 2000 to 2011, DHS Data



The Proportion of Households with an Improved Latrine¹ Remained Very Low in Ethiopia from 2000 to 2011, DHS Data

¹includes flush/pour flush to pit latrine, VIP, pit latrine w/ slab, excludes those shared with other households



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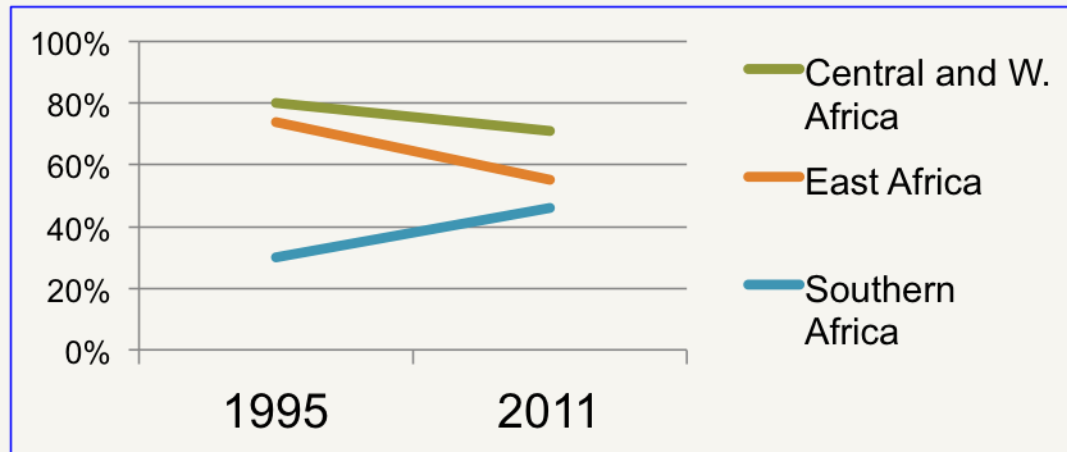
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How can this help accelerate reduction in anemia?

- Progress has been slow in spite of sound national policies
- Growing evidence that contextual factors may be more important than previously thought
- Regional and district context and program progress vary considerably
- Many countries are rapidly decentralizing

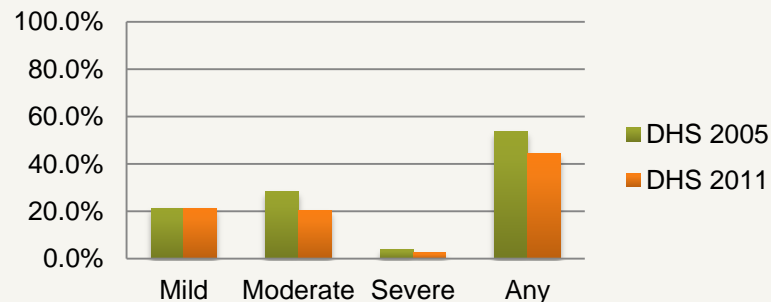
Reduction in anemia rates has been slow

Global anemia prevalence trend in 6-59 mo. children

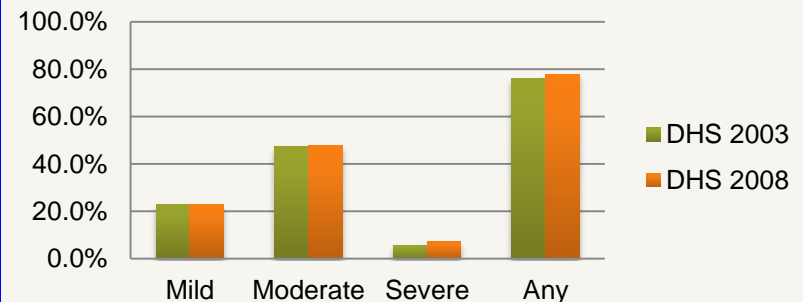


Lancet Glob Health 2013; 1: e16–25

Ethiopia: Anemia in 6-59 mo 2005 and 2011

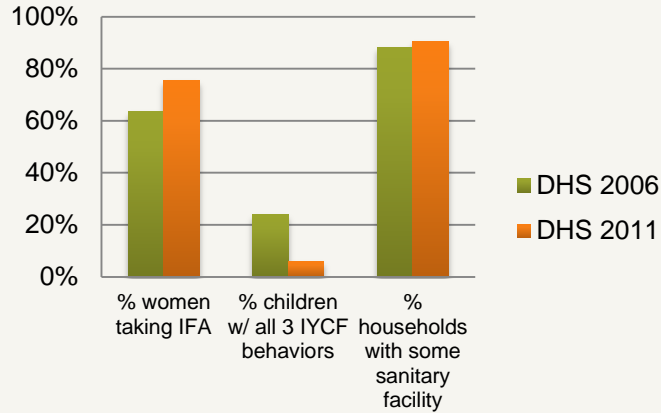


Ghana: Anemia 6-59 mo 2003 and 2008

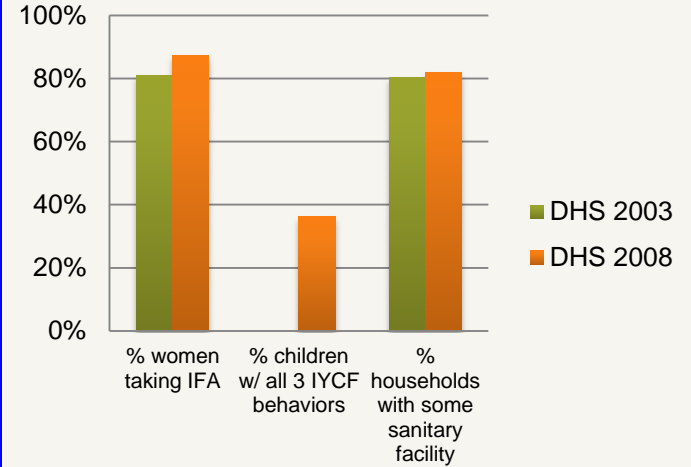


Progress with key interventions mixed

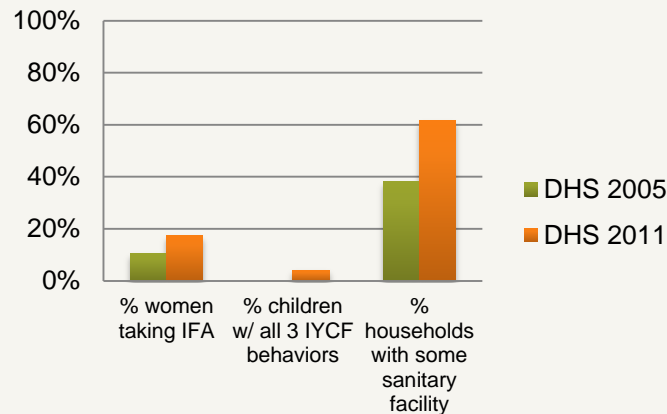
Uganda program trends



Ghana program trends



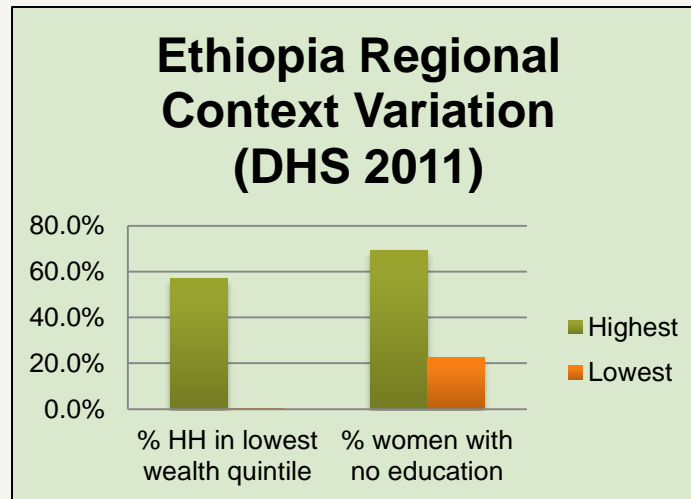
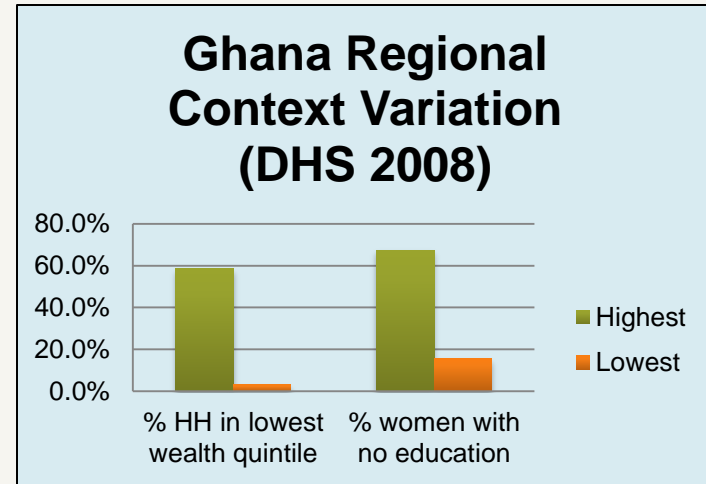
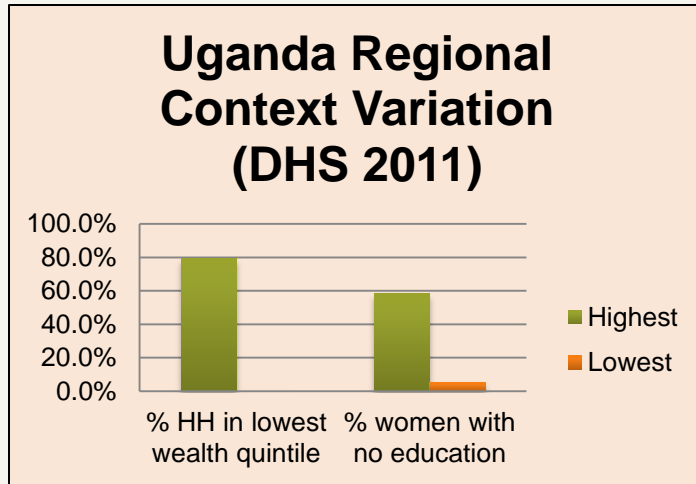
Ethiopia program trends



Data limitations

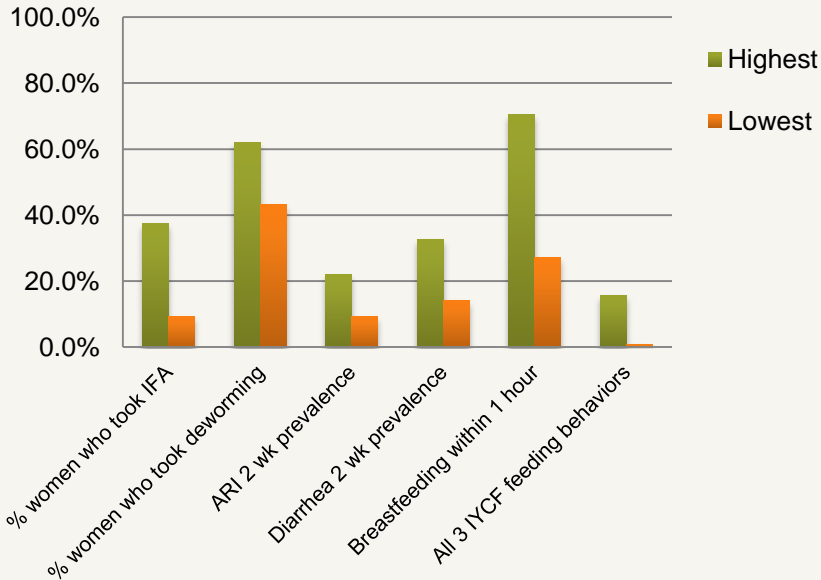
- DHS includes many indicators important for anemia interventions
- DHS usually includes stratification to the regional level
- Districts are left with HMIS reported data with which to assess their programs

Context Variability Across Regions

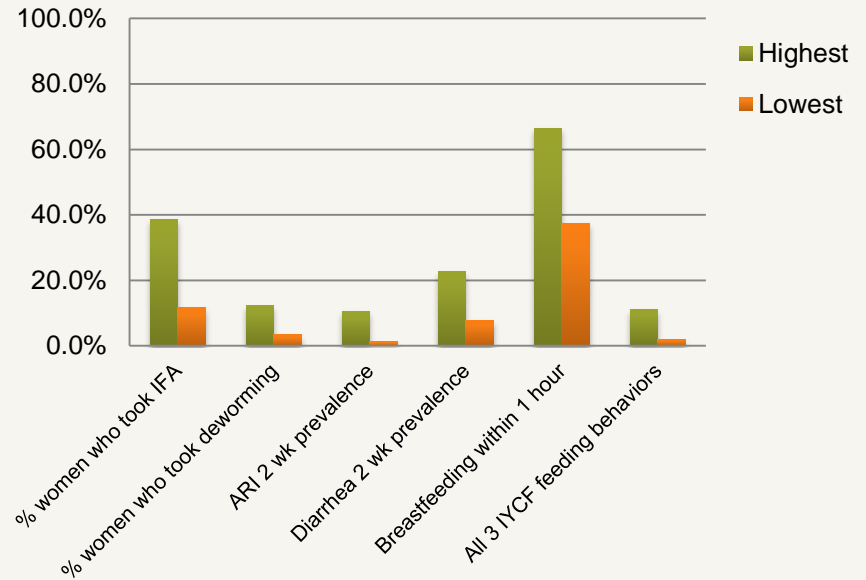


Program Variability Across Regions

Uganda: Regional variation in selected program indicators

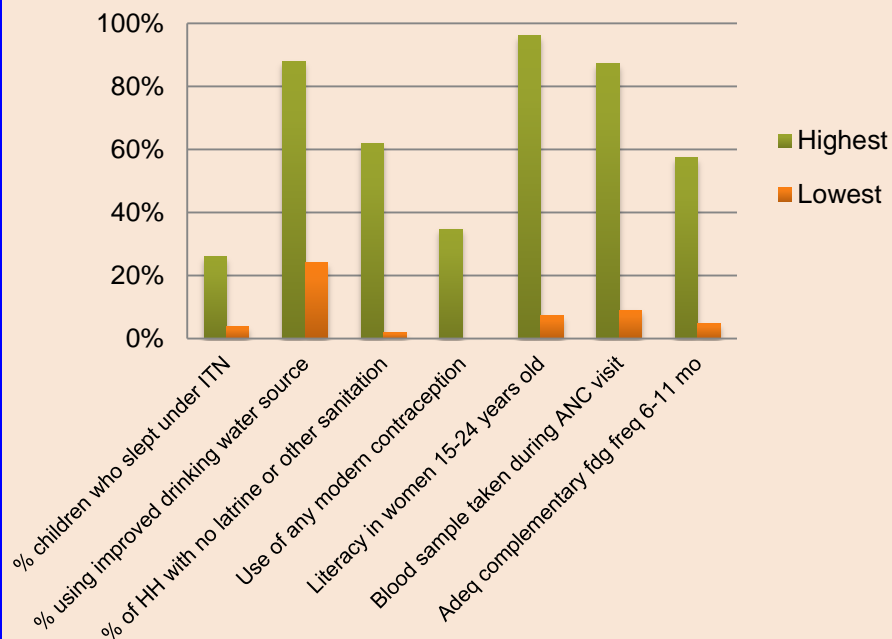


Ethiopia: Regional variation in selected program indicators

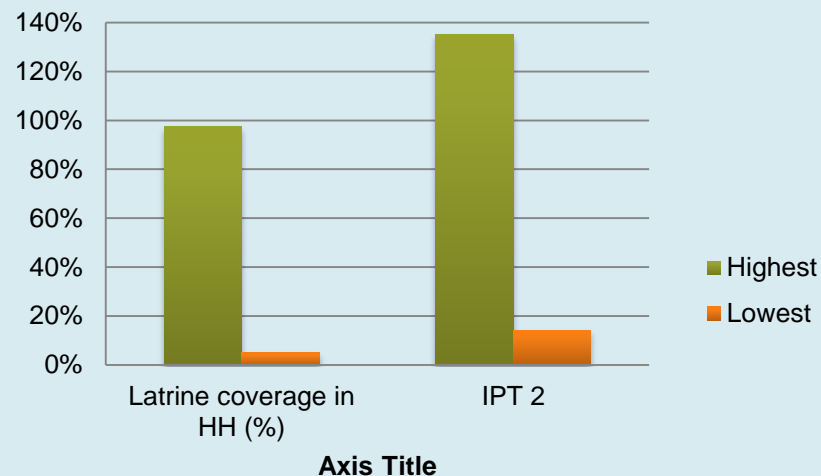


Variable district progress

Nigeria: Variation across states for selected program indicators



Uganda: Variation across districts for selected program indicators



Evolving district situation

- Greater capacity for program management
- Improved (but incomplete) HMIS
- In some countries improved computerization and analytic capacity
- Movement toward decentralization
- As seen with regions, large variation between districts in context and program progress

District data constraints

- Most districts do not have population-based household data
- HMIS has intrinsic bias (those who attend facilities)
- HMIS is often limited in the number and quality of indicators relevant to anemia programs

Constraints con't

- Districts thus limited to 'estimating' their situation using existing data and 'field wisdom'
- Ideally districts will in the future be empowered to expand their data sources (sentinel sites; early immunization visit questionnaires)

Implications for programming

- One size fits all won't be efficient
- Prioritization at the district level will improve efficiency
- Analysis based on existing data should help districts focus on critical gaps
- Local understanding (wisdom) and HMIS should be adequate, but enhanced district M&E would be optimal

The Guide

Draft outline for District tool Guideline

Part I: Background

- A. Why worry about anemia?
 - Relationship between anemia and maternal and child mortality
 - Morbidity from anemia (work productivity, education)
 - High prevalence globally and nationally
- B. Anemia at the national level: Understanding the national dashboard
 - Implications of national prevalence
 - Estimating contributing factors
 - Review of national strategies and interventions
 - DHS and data limitations

Part II: The District Anemia Tool and Guideline

- A. What is the problem in this district, and how well do we understand it?
 - Presence or absence of anemia data
 - Assessing the relative contribution of different causes: best guestimates based on limited data
 - Thinking across sectors: What can each sector do to help?
- B. General approach to the district anemia context
 - Lack of DHS data and using HMIS indicators to help in estimating program effectiveness
 - Logistics, Demand, Coverage, and Compliance
 - Prioritizing activities to strengthen implementation
- C. Assessing interventions to increase iron intake and improve iron stores
- D. Assessing interventions to reduce iron losses and infection

Part III: Algorithms and other tools

- A. Algorithm for assessing logistics, demand, coverage and compliance
- B. Algorithm for assessing iron intake and stores
- C. Algorithm for assessing iron losses and infection
- D. Annotated Key References

Provides background on multiple contributing causes

Provides analytic process for assessing district context

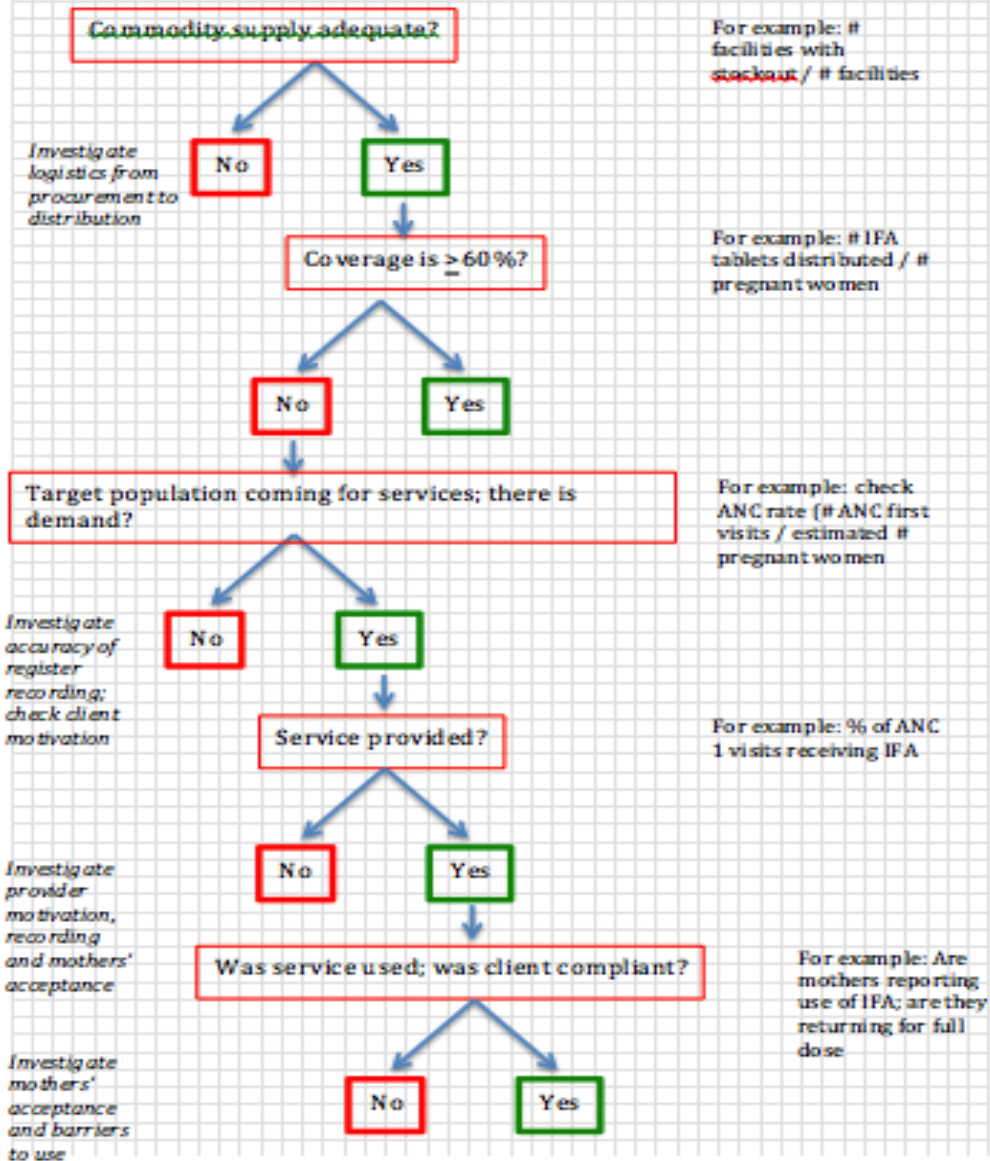
Provides tools for analysis and evidence basis for each intervention

Appendix A: General algorithm for assessing anemia program elements for which policy exists:

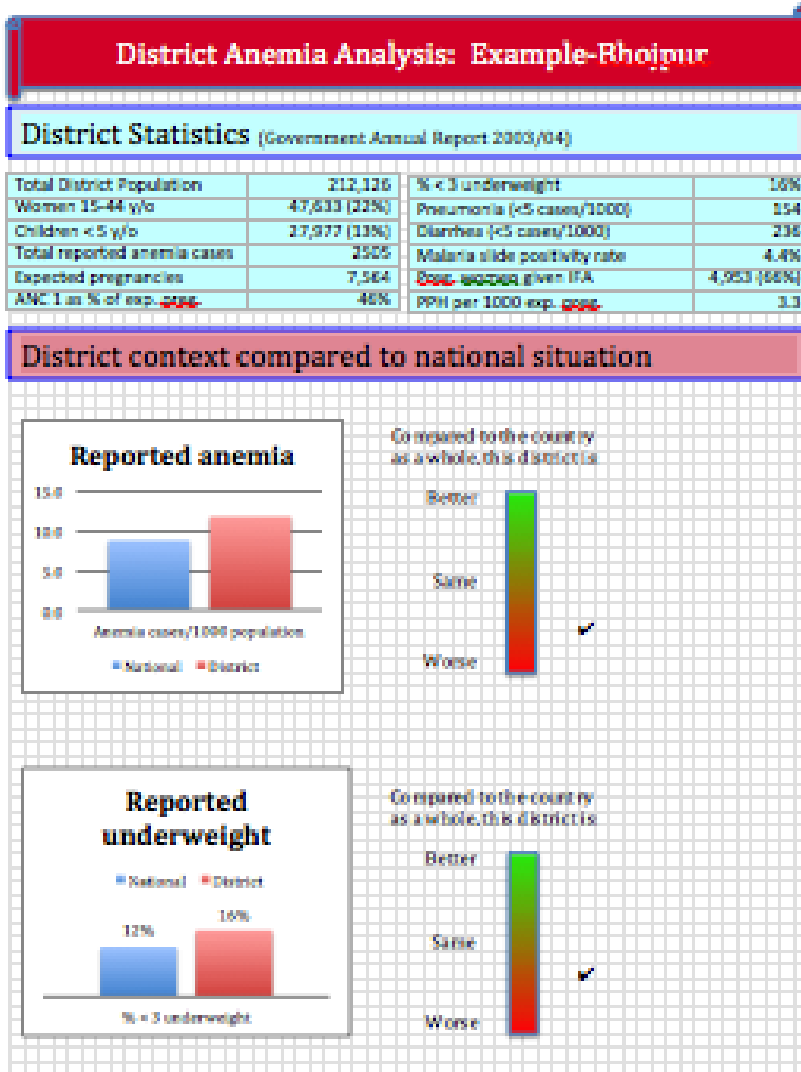
Example: Analytic process Appendix A

Analyzes:

- Logistics
- Demand
- Coverage
- Compliance



The Tool



Facilitates comparison with the national situation

District specific figures to highlight context

Using best available district data, compare to national figures

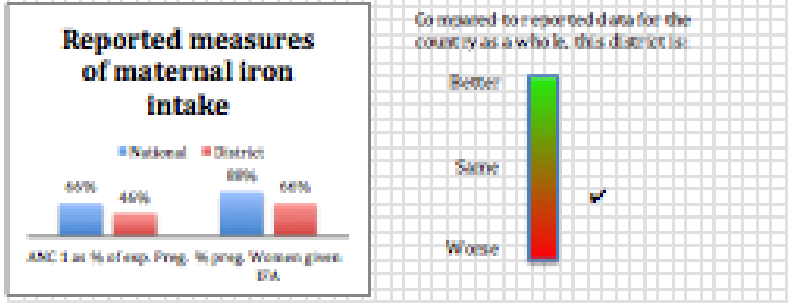


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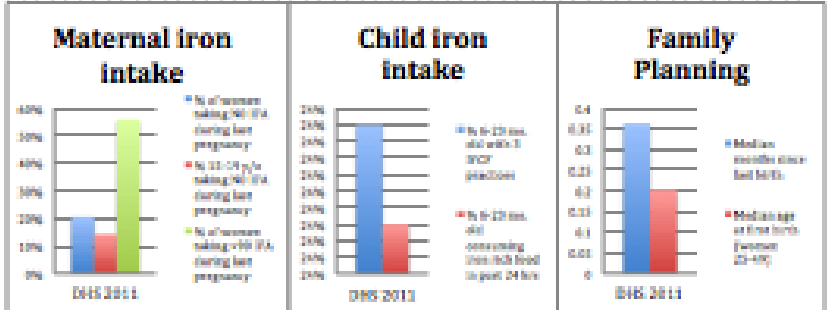
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The Tool

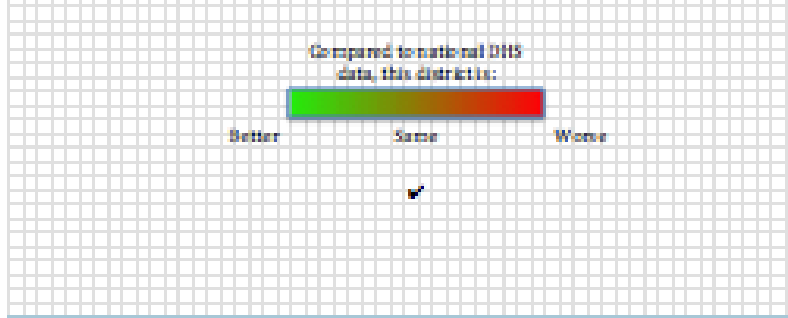
Interventions to improve iron intake and stores



Organized by type of intervention



Where data are missing, best estimate of district status, compared to national DHS figures



Example: Appendix B

Appendix B: Interventions to improve iron intake and stores

Interventions to improve iron intake and stores	District level data	Logistics	Demand	Coverage	Compliance																								
1. IFA supplementation during pregnancy		<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better			
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2. Delayed cord clamping		<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better			
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3. Appropriate complimentary feeding (including frequency and diversity)		<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better			
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4. Micronutrient powders (MNPs) for 6-23 mo. old children		<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better			
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5. IFA for adolescent girls (age 15-19)		<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better			
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6. Family planning to increase birth spacing		<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better				<table border="1"> <tr><td>Worse</td><td>Same</td><td>Better</td></tr> <tr><td colspan="3"></td></tr> </table>	Worse	Same	Better			
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District Anemia Tool and Guide

- Designed to increase awareness of the multiple causes of anemia and help districts prioritize activities
- Through facilitated analysis, districts can assess whether they are better or worse than the national average for key anemia interventions

Thank you



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