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Iron-Folic Acid Distribution and Consumption through Antenatal Care: Using DHS Data to Identify Barriers

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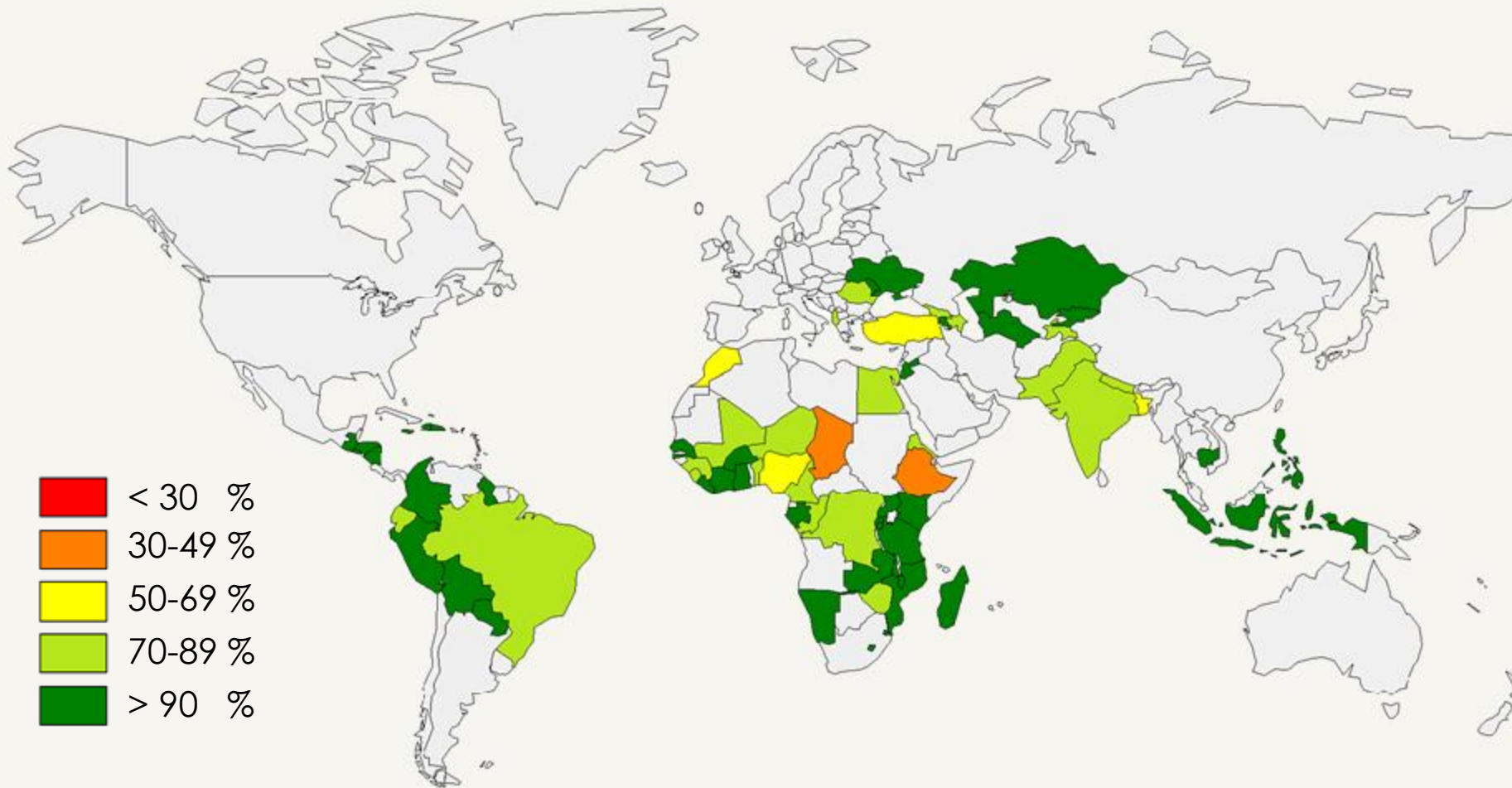
The Global Prevalence of Anemia among Women

- In 2011, the prevalence of anemia among pregnant and non-pregnant women had fallen by **less than half a percentage point a year** since 1995
 - **528 million** women of childbearing age were anemic
- At this current rate of progress, it will be **2043** before “only” one-in-three pregnant women and “only” one-in-four non-pregnant women are anemic

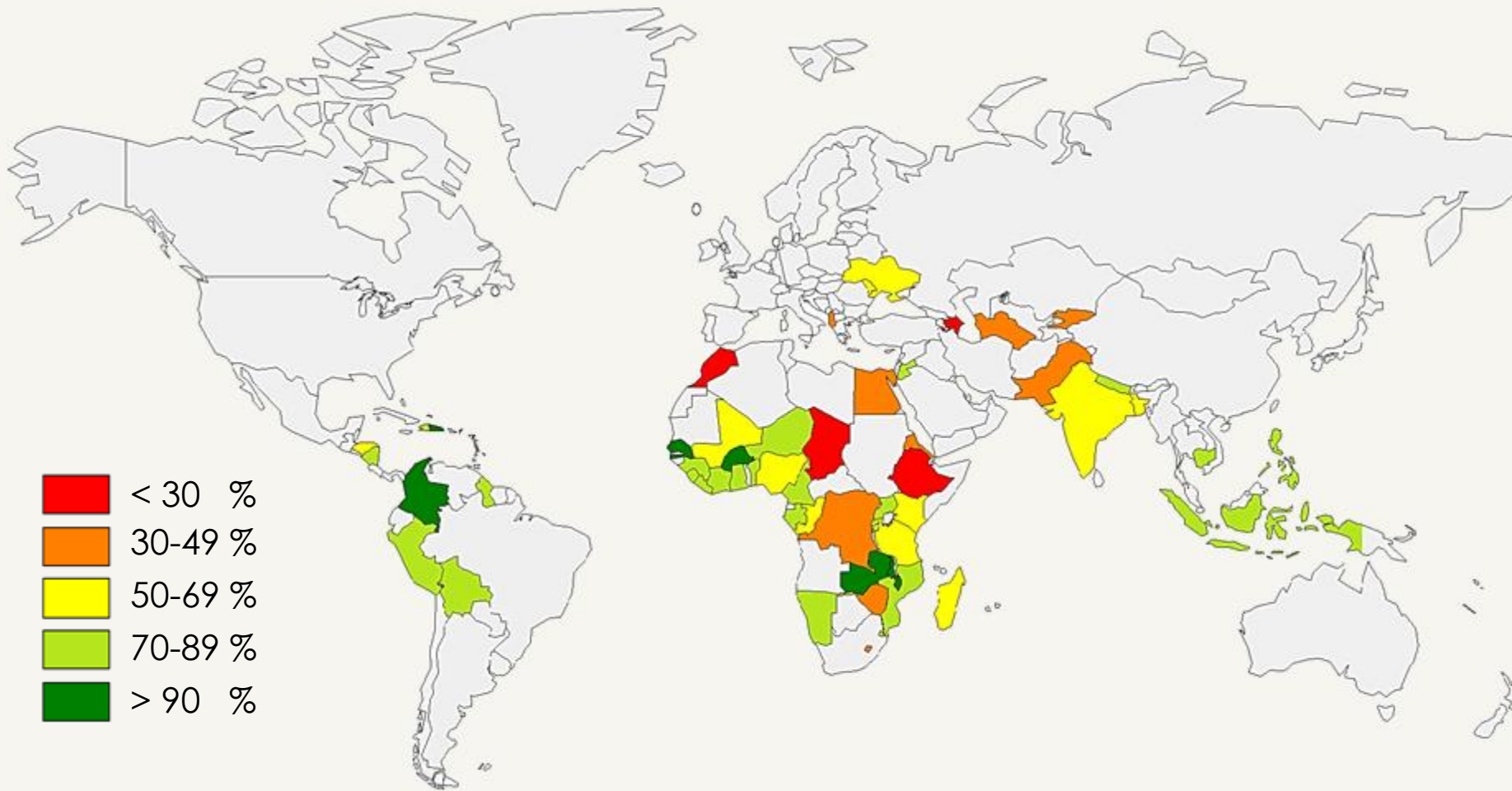
Iron Supplementation Programs

- Roughly half of the episodes of anemia that women of childbearing age suffer can be corrected by iron supplementation
- Globally the most common micronutrient supplementation program implemented at national scale is iron supplementation for pregnant or non-pregnant women

ANC Coverage (1+ ANC visits) According to Most Recent DHS



IFA Coverage (Consumption of 1+ IFA) According to Most Recent DHS



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Rationale

- 🍃 Antenatal care (ANC) coverage has improved dramatically over the past few decades
- 🍃 Although the majority of countries have iron-folic acid (IFA) supplementation policies for pregnant women, IFA coverage has not kept up

What are the barriers to IFA distribution through ANC?

Supply- and Demand-side Barriers

Supply-side

- Adequate supplies of IFA tablets
- Convenient location of ANC service
- Accessibility (e.g. ANC services provided at a convenient time and for sufficient days during the week)

Demand-side

- Care-seeking behaviors
- Understanding the significance of iron-deficiency anemia
- IFA tablet characteristics (taste, appearance, etc.)
- Beliefs about actual or potential side effects
- Technical knowledge and skill of ANC providers

Data Needs

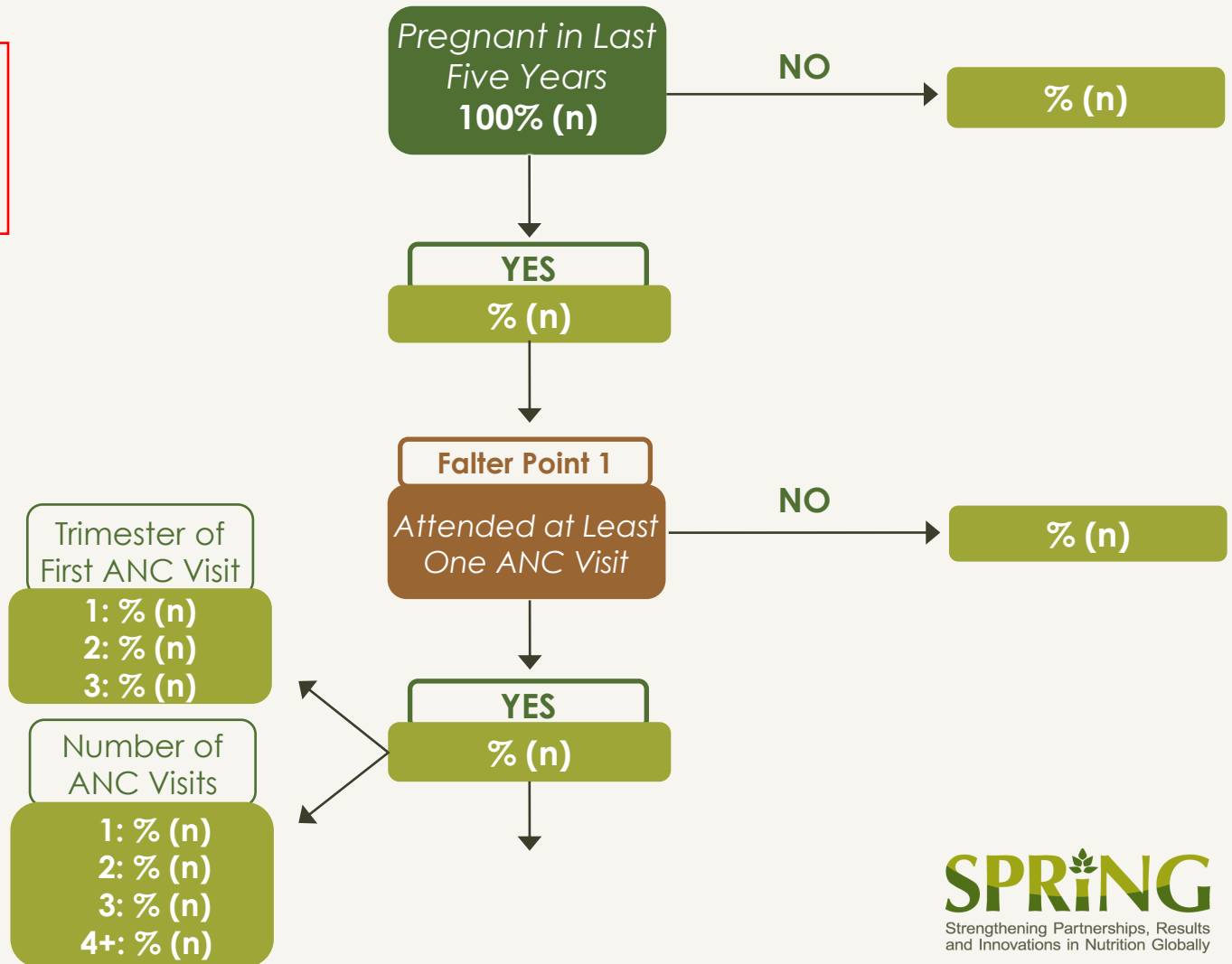
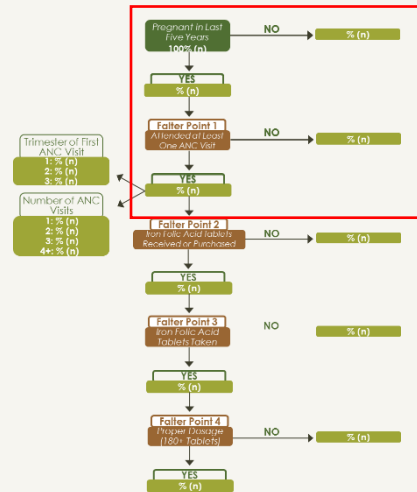
- Well-developed monitoring systems for iron programs are often nonexistent
- Often there is no data on coverage or compliance
- Demographic and Health Survey (DHS) data
 - 1) Did you see anyone for antenatal care for this pregnancy?
 - 2) During this pregnancy, were you given or did you buy iron tablets or iron syrup?
 - 3) During the whole pregnancy, for how many days did you take the iron tablets or iron syrup?

Analysis

- DHS data from 22 countries with high burdens of undernutrition were used to identify four sequential “falter points” that may inhibit women from obtaining and consuming an ideal of 180 IFA tablets during pregnancy
- Looking at:
 - Women who received ANC
 - Women who received IFA tablets (or syrup)
 - Women who consumed IFA tablets
 - The number of tablets consumed

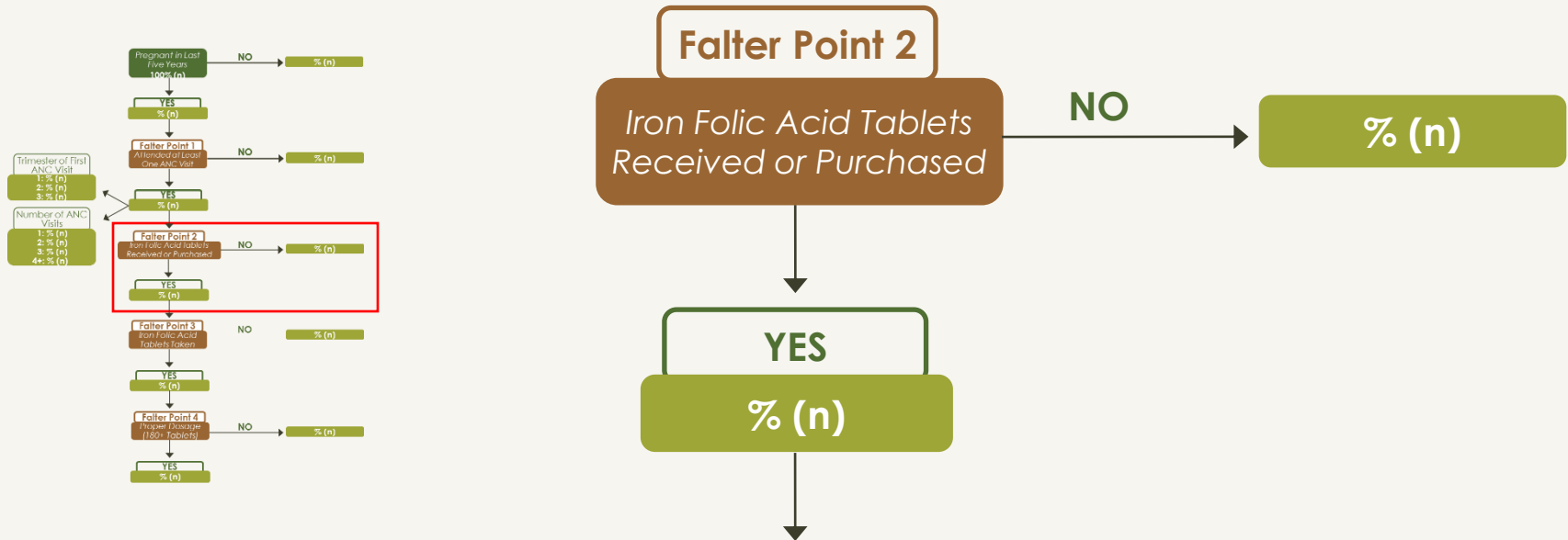
Falter Point 1

Percentage of pregnant women who did not attend at least one ANC visit



Falter Point 2

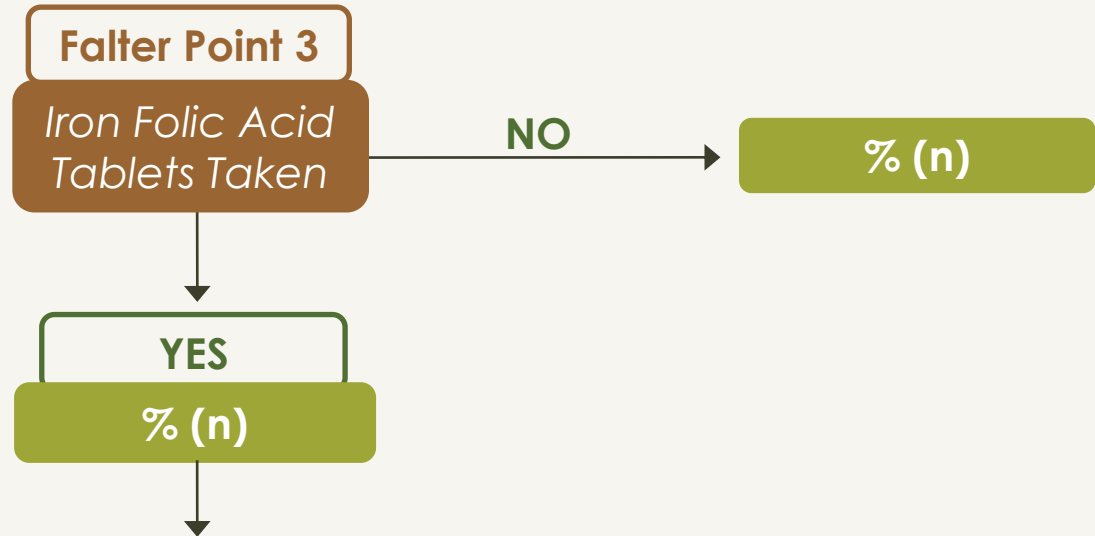
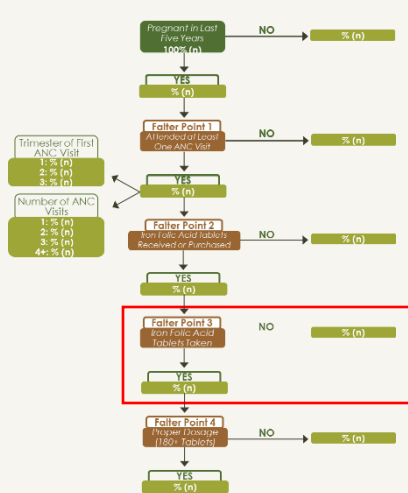
Percentage of pregnant women who attended at least one ANC visit but did not receive or purchase IFA tablets



421	<p>During this pregnancy, were you given or did you buy any iron tablets?</p> <p>SHOW TABLETS.</p>	<p>YES 1</p> <p>NO 2</p> <p>(SKIP TO 423) ←</p> <p>DON'T KNOW 8</p>
422	<p>During the whole pregnancy, for how many days did you take the tablets?</p> <p>IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.</p>	<p>NO. OF DAYS ... <input type="text"/> <input type="text"/> <input type="text"/></p> <p>DON'T KNOW 998</p>

Falter Point 3

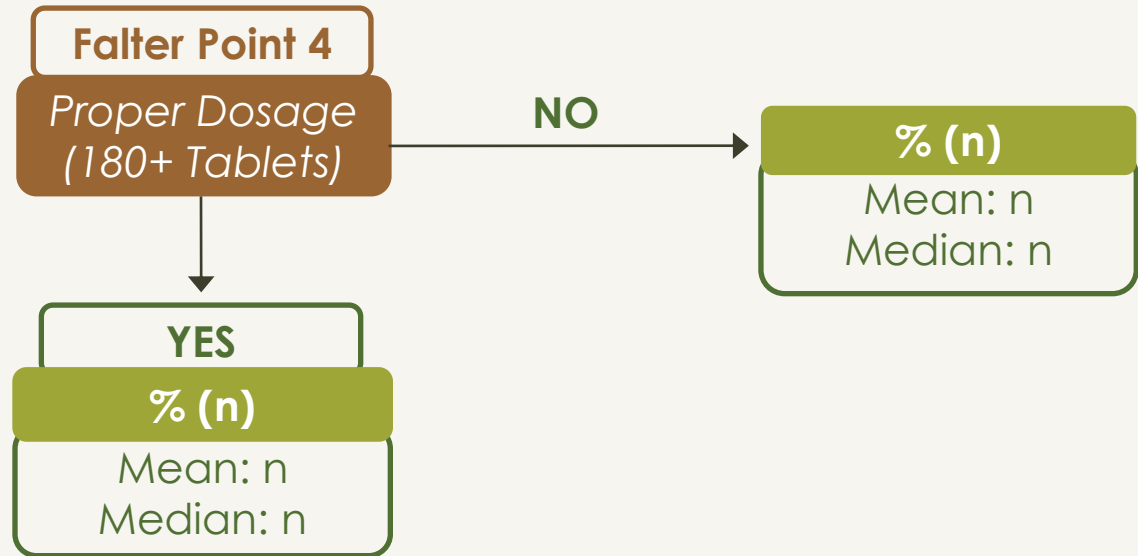
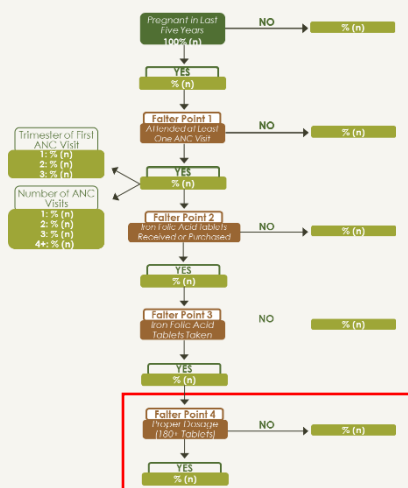
Percentage of pregnant women who attended ANC, received or purchased IFA tablets, but did not consume at least one IFA tablet



421	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLETS.	YES 1 NO 2 (SKIP TO 423) ← DON'T KNOW 8
422	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NO. OF DAYS ... <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 998

Falter Point 4

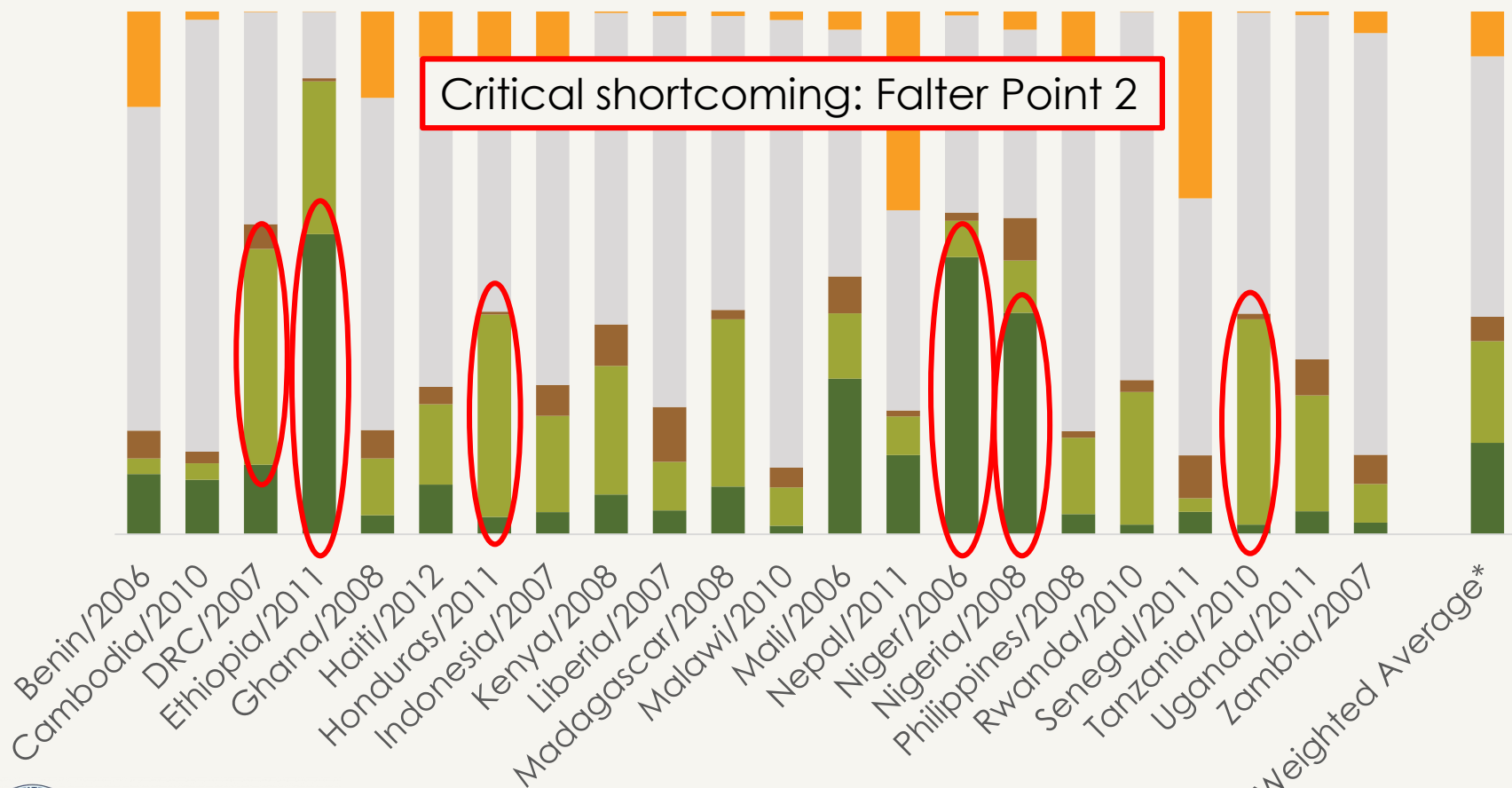
Percentage of pregnant women who attended ANC, received or purchased IFA tablets, consumed at least one, but did not consume 180+ tablets



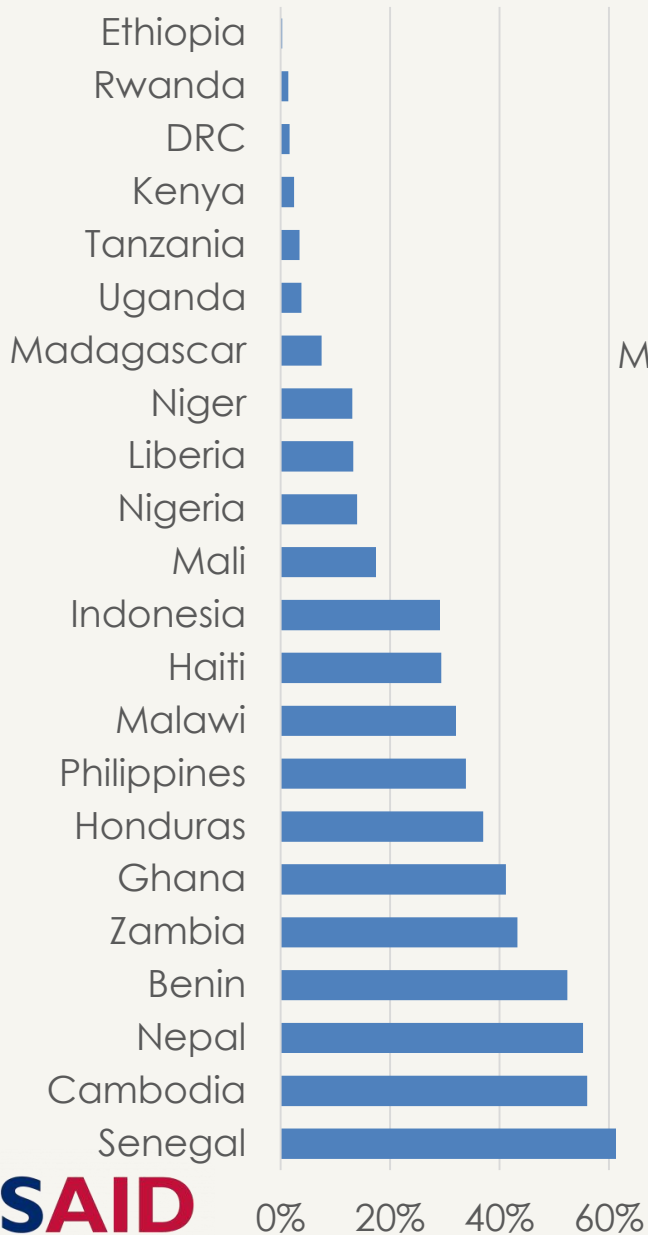
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The Percentage of all Pregnant Women Faltering at each of the Four Falter Points

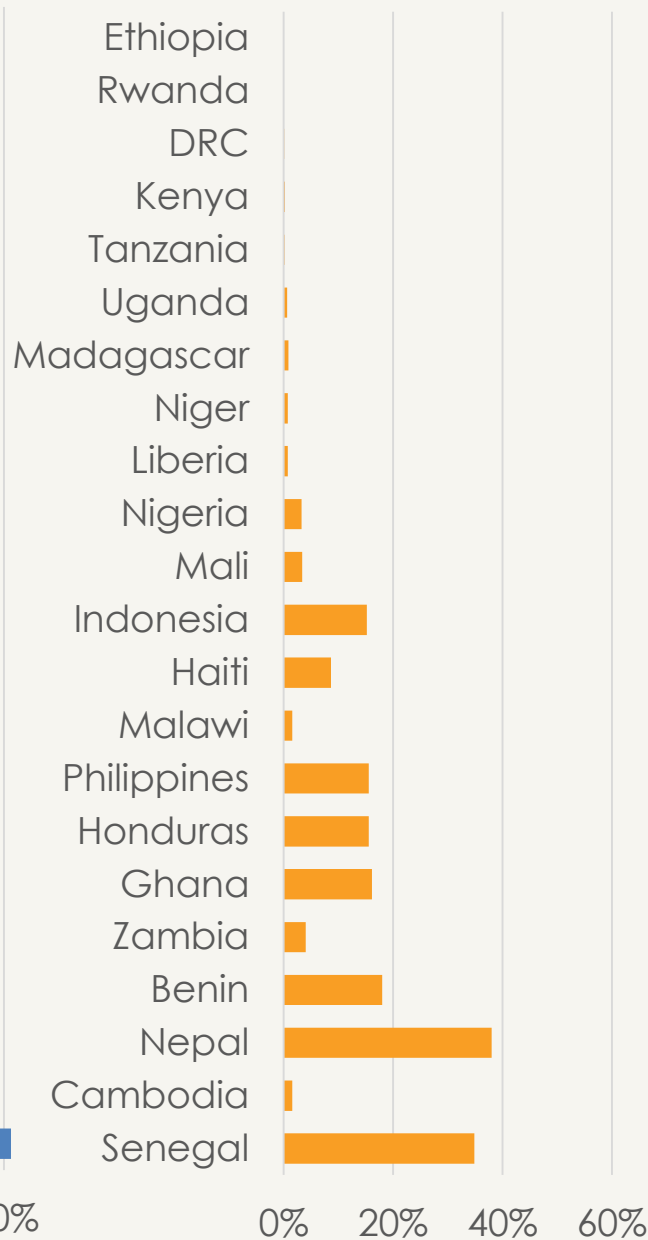
■ Falter Point 1
 ■ Falter Point 2
 ■ Falter Point 3
 ■ Falter Point 4
 ■ Did Not Falter



Took 90+ tablets



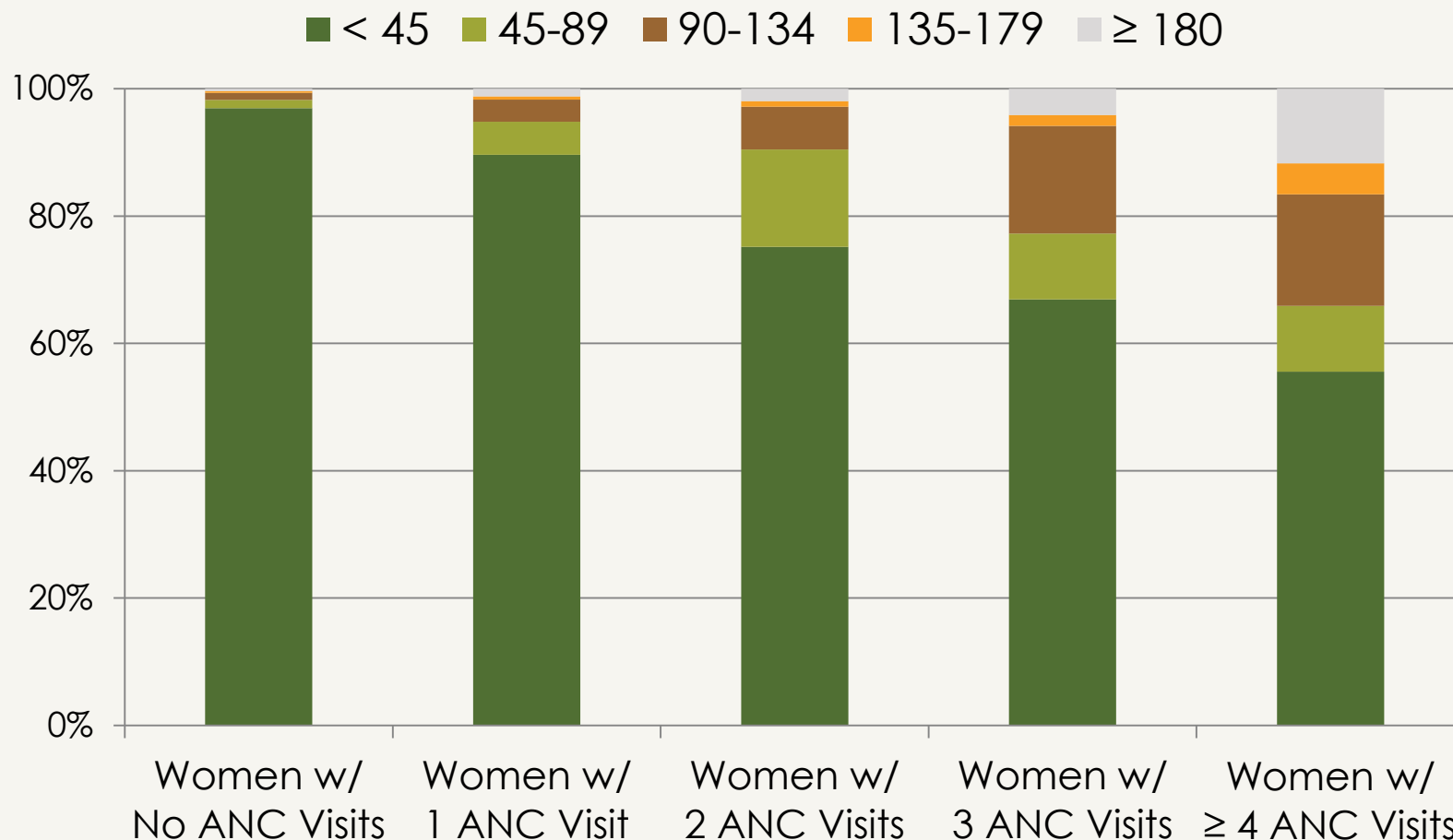
Took 180+ tablets



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Number of IFA Tablets Increases with the Number of ANC Visits



Discussion

- IFA supplementation is recommended during pregnancy whether or not anemia remains a problem
 - Why is faltering so common, when ANC coverage is so high?
 - How do we determine the unique supply chain and/or demand side constraints within each country?
- Addressing these issues requires understanding:
 - How the ANC program functions within the health system
 - The knowledge, attitudes, motivations and behaviors of ANC providers and patients

Thank You

Questions or Comments?

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