

Estimating demand for male circumcision services

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Why estimate demand?

- Global estimates inform planning for organizations that provide scale-up assistance across countries
- National estimates inform policy on whether and how to scale up MC services
- Local estimates facilitate resource planning for programs targeting specific catchment areas

Agenda



Rough demand estimates

Refined demand estimates

Process to derive rough estimates

- Define scope: African countries, males under age 49

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Process to derive rough estimates

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- Estimate number of uncircumcised males in each country
 - Population data from U.S. Census Bureau
 - MC rate data from DHS, Williams et al, educated guesses
- Sum estimates of uncircumcised males

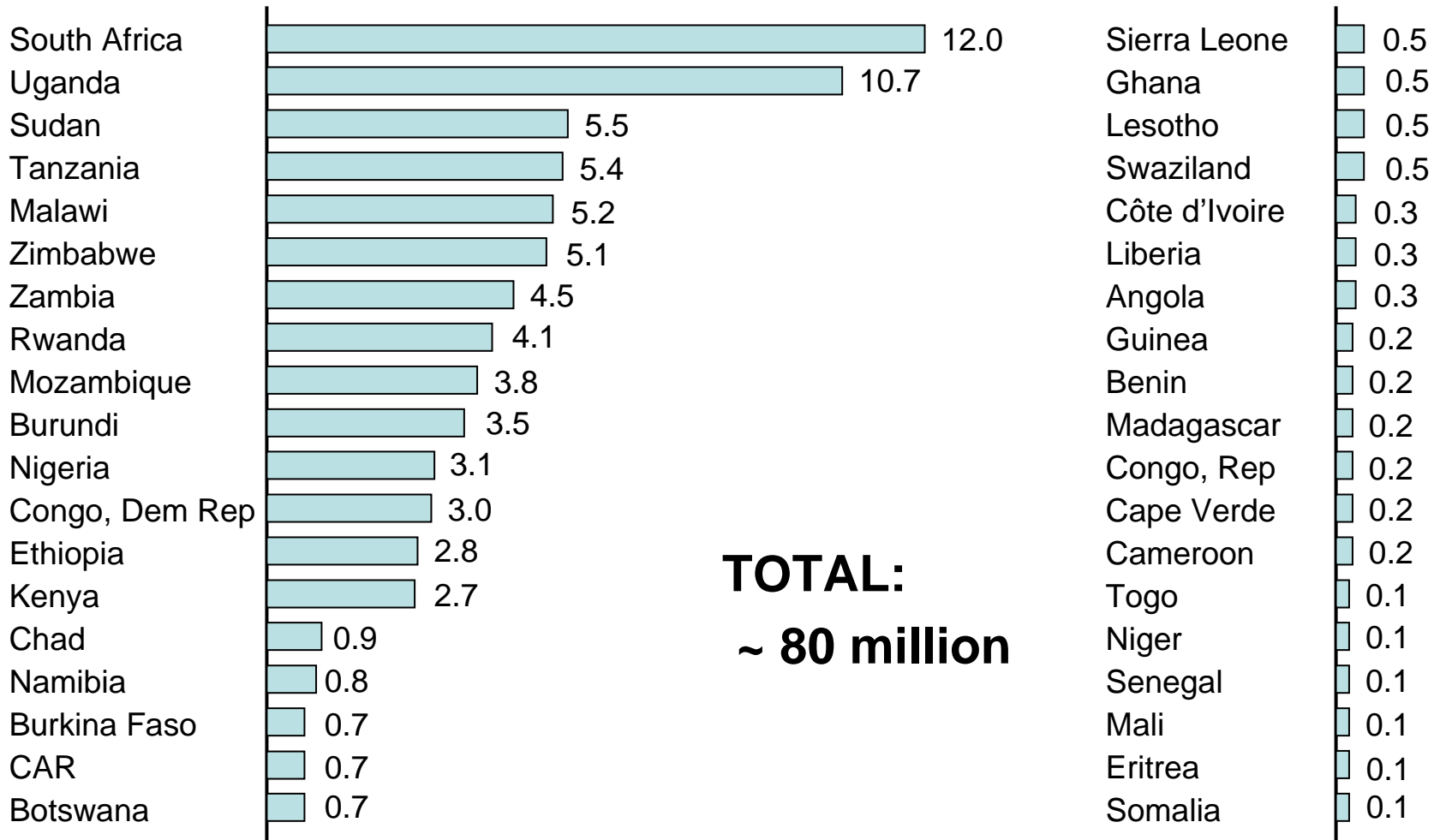
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Process to derive rough estimates

$$\begin{array}{ccc} \text{estimated \#} & & \\ \text{uncircumcised} & & \\ \text{males} & \times & \begin{array}{c} \% \text{ of} \\ \text{uncircumcised} \\ \text{males willing to get} \\ \text{circumcised}^* \end{array} & = & \begin{array}{c} \text{rough estimate of} \\ \text{MC demand} \end{array} \end{array}$$

* Willingness based on published acceptability studies

Estimated number of uncircumcised males (Africa, under age 49)*

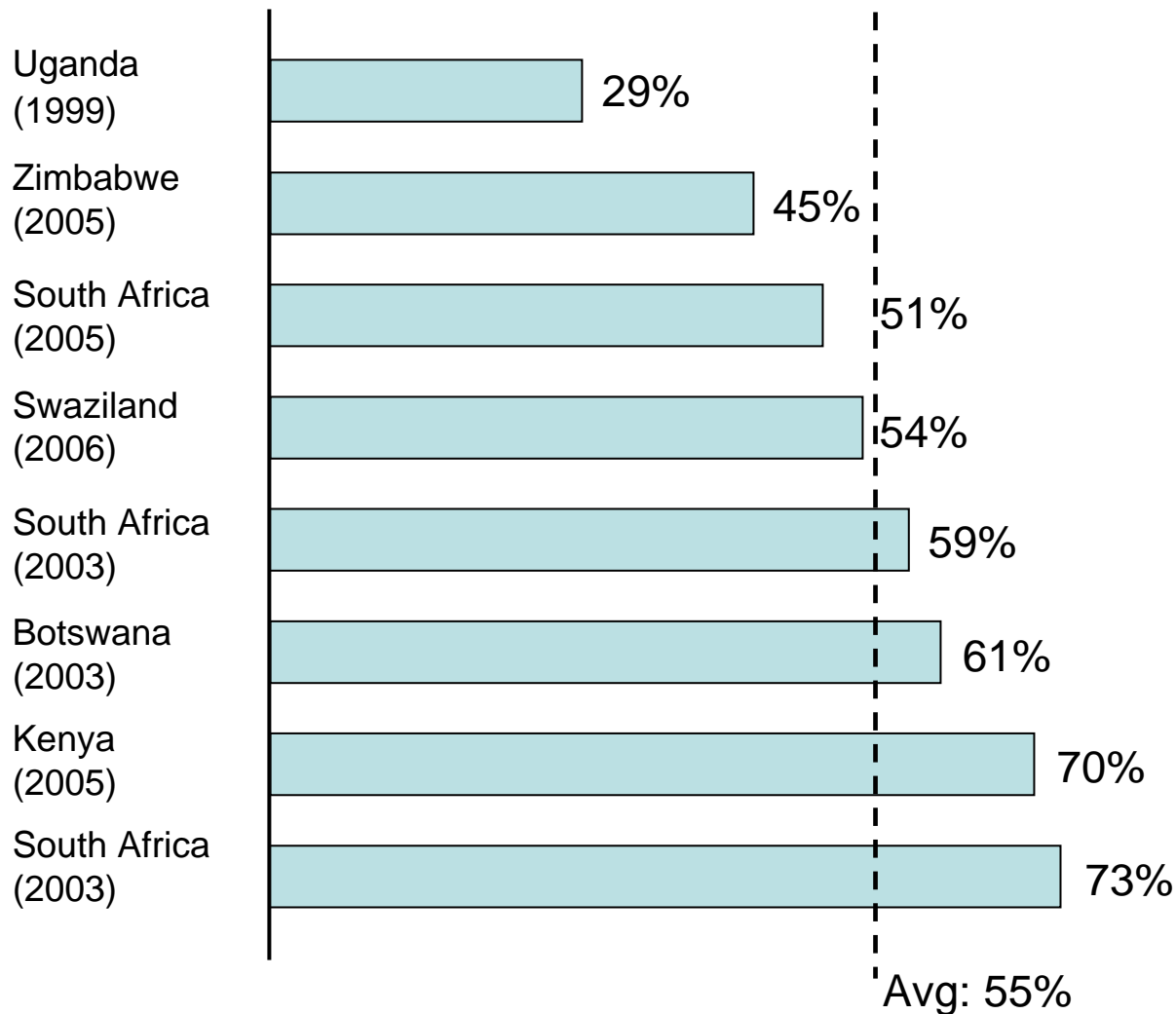


* Less than 0.1: Gambia, Guinea-Bissau, Gabon, Mauritania, Equatorial Guinea, Djibouti, Mauritius, Libya, Comoros, Algeria, Egypt, Morocco, Tunisia, Sao Tome and Principe, Seychelles

* Assumes uniform MC rate across age groups within each country

Sources: U.S. Census Bureau, DHS, Williams et al, team analysis

Percentage of uncircumcised males willing to get circumcised



Rough estimates of MC demand (Africa, under age 49)

~ 80 million
uncircumcised
males



Low willingness (30%) = 24 million

Medium willingness (50%) = 40 million

High willingness (70%) = 56 million

Rough demand estimates



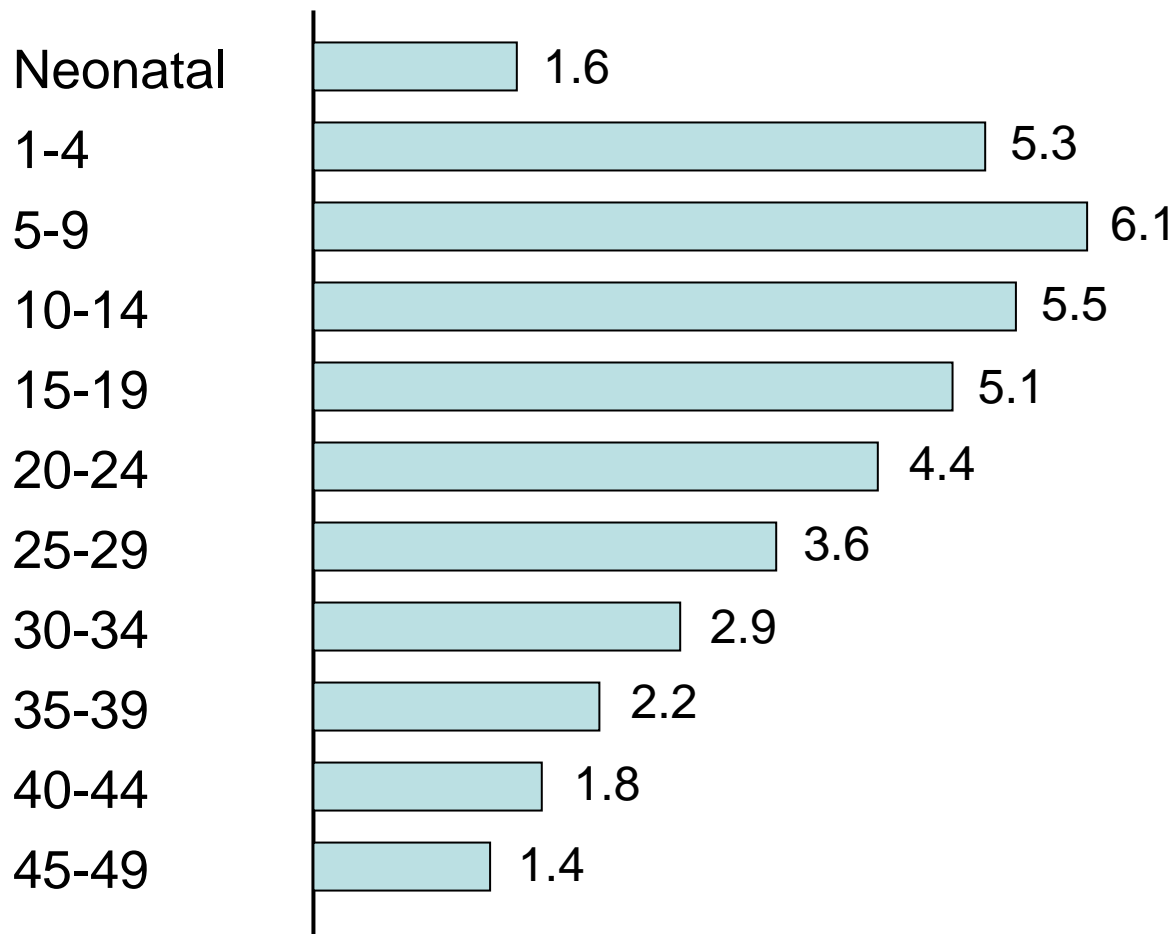
Refined demand estimates

Refined estimates require national-level assessment of MC policy

1. Targeting of age groups
2. Targeting based on HIV status
3. Patient cost
4. Distribution of service delivery sites

1. Targeting of age groups

MC demand estimate, by age* (50% willingness)

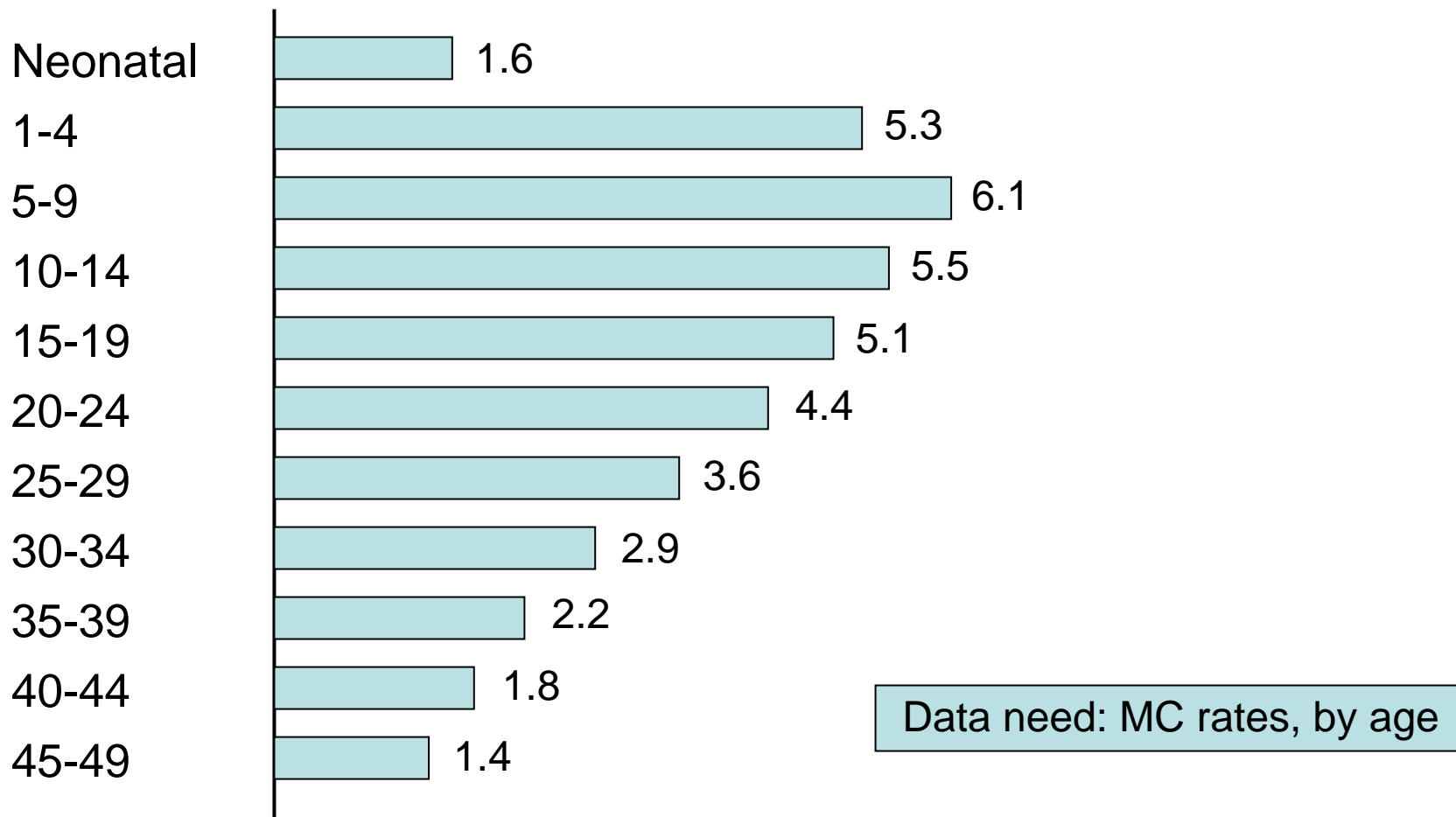


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1. Targeting of age groups

MC demand estimate, by age* (50% willingness)




* Assumes uniform MC rate across age groups within each country
Sources: U.S. Census Bureau, DHS, Williams et al, team analysis

2. Targeting based on HIV status

MC demand estimates*

76
80 million
uncircumcised
HIV- males



Low uptake (30%) = 24 million → **22.7**

Medium uptake (50%) = 40 million → **37.9**

High uptake (70%) = 56 million → **53.1**

* Assumes uniform MC rate across age groups within each country; uniform HIV prevalence among males 0-14; uniform HIV prevalence among males 15-49; no difference in HIV prevalence based on circumcision status


Sources: U.S. Census Bureau, DHS, Williams et al, 2006 UNAIDS Report on Global AIDS Epidemic, team analysis

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Data needs: HIV prevalence, by age and MC status
Impact of required testing on uptake

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3. Patient cost

Patient share of cost
will significantly
impact demand



- Cost cited as 1 of 3 most consistent barriers to acceptability
- In Mattson et al, 34% of those preferring to remain uncircumcised changed mind when cost set at only \$3

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Data need: Price elasticity of demand for MC

4. Distribution of service delivery sites

- Health service utilization decreases as distance that patients have to travel increases
- Unknown how far males will be willing to travel to access MC services

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Data need: Impact of travel distances on uptake

Summary

- Rough estimates suggest that MC demand could range from 24 to 56 million
- Refined estimates require national-level assessment of MC policy
 - Some data exist to estimate the impact of targeting (based on age or HIV status) on MC demand
 - Little data exists on how price or distance to services will impact MC demand

Thank you

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