

The cost of diabetes and its complications to the patients and their household : *Development of an advocacy tool in sub-Saharan Africa*

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Background

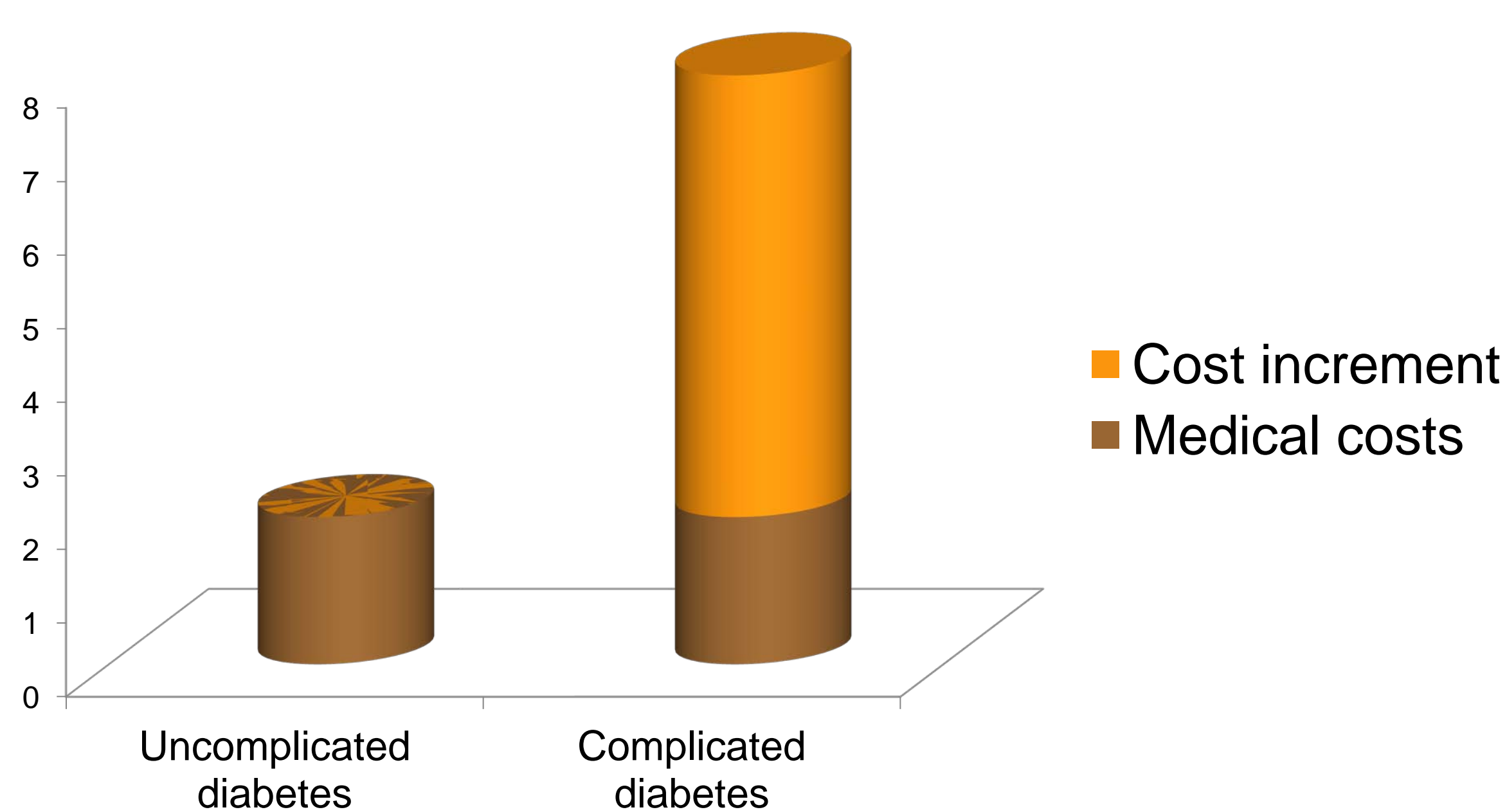
- Non-communicable diseases including diabetes are escalating in sub-Saharan Africa
- Advocacy is needed, and focusing on diabetes is relevant because it is a known and feared disease
- Estimating the cost of the disease at country level can be useful for advocacy

Objective of study

To assess direct medical cost of diabetes based on national data in West African countries for advocacy

Strategy for advocacy

- To highlight the elevated cost of management of complicated vs uncomplicated diabetes because of late diagnosis



Methods

1. Consensus on acceptable management of diabetes: Without and with complications

2. Costing of treatment components in 4 countries: Bénin, Burkina Faso, Guinea, Mali
Range of costs in public and private sector

3. Simulation of total medical cost of diabetes/year
-With specifically designed calculator
-Based on national data on prevalence and complication rate

Results

• Estimated total cost for country:

(a) + (b)

(a) = Cost for uncomplicated diabetes

$$\% \text{ prevalence} \times \text{population} = \text{N cases} \times \text{cost/year}$$

(b) = Cost for complications

$$\sum (\text{Frequency} \times \text{cost}) \text{ for each of 4 main complications}$$

• Estimated prevalence rates in region

☐ Diabetes 3%

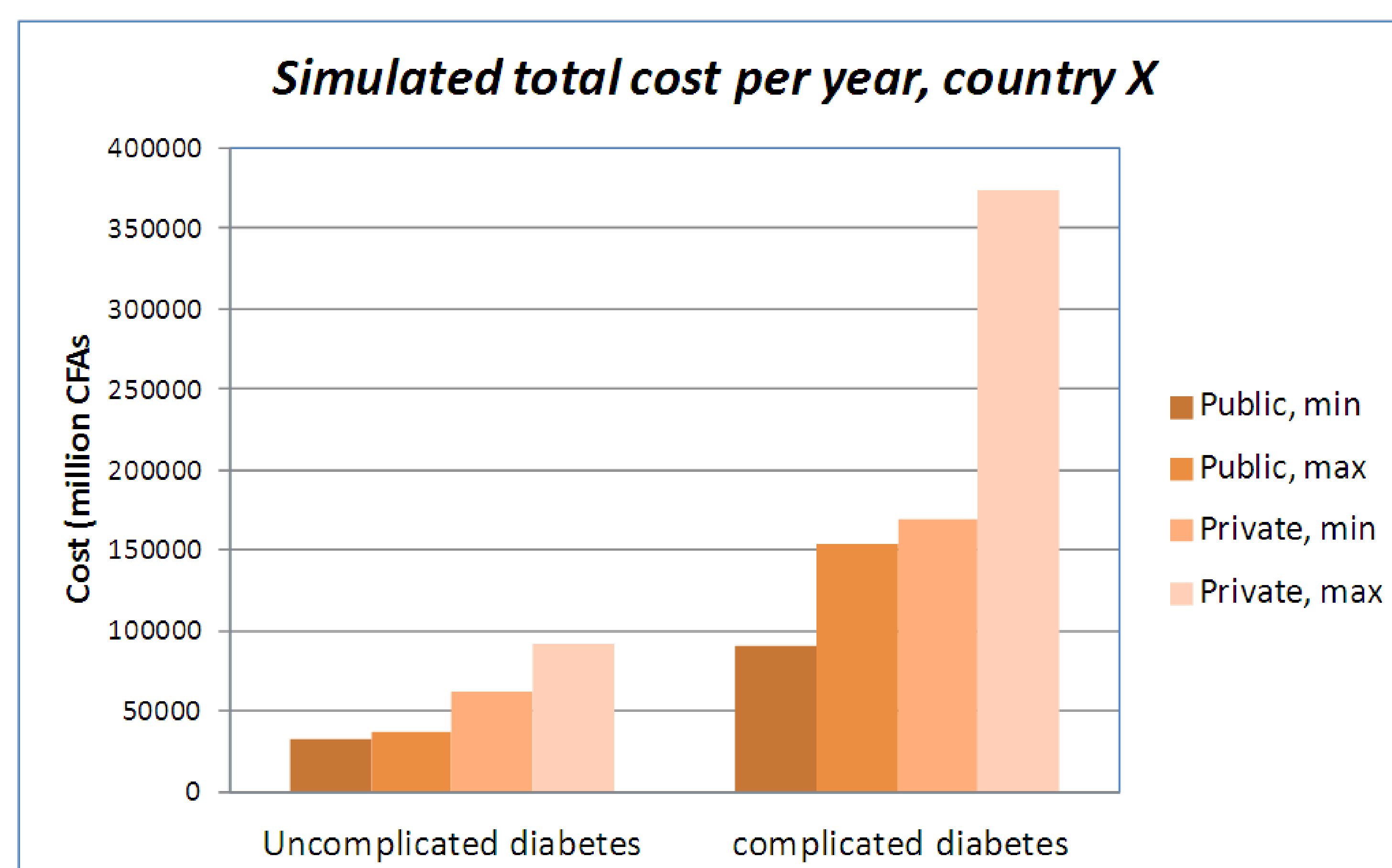
☐ Main complication rates: (total 100%)

-Diabetic foot 12%-15%

-Retinopathy 32%-40%

-Hypertension 50%

-Keto-acidosis 6%



Conclusion

- The calculator is user-friendly and flexible
- Reliability of output depends on quality of data
- Direct non-medical costs to patients and their family would be relevant additions but difficult to assess (diet; transportation...)
- The next step is to test, utilize and disseminate the tool.