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## Conference Poster

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# Health System Costs of Safe Abortion and Post Abortion Care from Unsafe Induced Abortions in Zambia

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- Globally the number of unsafe abortions remain stubbornly high, especially in low-income countries.
- The global costs of treating complications from unsafe abortions are likely to be a significant burden on public health systems of these countries. However, there are little data and evidence that are of use to policymakers.
- In Zambia, despite induced abortion being legal since 1972, the proportion of maternal deaths attributable to unsafe abortion is estimated at 30% or more. The costs of safe and unsafe induced abortions to the Zambian health system have never been estimated.

**AIM:** To estimate the Zambia health system costs of induced abortions - PAC for unsafe induced abortions and safe induced abortions in health facilities

**METHODS:** Estimate the treatment costs and annual costs of providing SA and PAC services at University Teaching Hospital (UTH) in Lusaka and project these costs to generate indicative cost estimates for the Zambian public health system by using an adaptation of the WHO Mother-Baby Package Costing Spreadsheet.

## DATA

- Key informant interviews (n=18) to collect information on treatment protocols and costs
- Medical case records review of women receiving SA and PAC (n=71) to validate the treatment protocols
- Review of facility aggregate records (logbooks) to estimate the number of women receiving treatment for abortions at UTH.

## BOX 1. Definitions and terms

**UNSAFE INDUCED ABORTION:** "a procedure for terminating an unintended pregnancy, carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both" (WHO, 2012)<sup>1</sup>. Any abortions induced outside health facilities are regarded as unsafe abortions in this study.

**SAFE INDUCED ABORTION (SA):** Medical abortions (MA) for gestational age 5-9 weeks and manual vacuum aspiration (MVA) for gestation age 9-12 weeks conducted in health facilities are regarded as safe induced abortion for this study.

**POST ABORTION CARE (PAC):** Following an induced (safe or unsafe) or spontaneous abortion, women sometimes need PAC at health facilities, which ranges from treatment of abortion complication to counselling, and provision of contraception. In this study, PAC includes treatment for incomplete abortion, sepsis and shock. Time spend on counselling and contraception advice are included in personnel costs.

## BOX 2. Number of safe and unsafe induced abortion in Zambia

**Total number of induced abortions in Zambia (per year)**

$$= \text{Abortion Rate}/1000 \times \text{Number of women 15-44 years}$$

$$= 45,110 \text{ to } 114,279$$

**Total number of unsafe induced abortions in Zambia (per year)**

$$= \text{Unsafe abortion rate}/1000 \times \text{Number of women 15-44 years}$$

$$= 27,066 \text{ to } 108,264$$

**Total number of unsafe induced abortions requiring PAC in Zambia (per year)**

$$= \text{Percentage of unsafe induced abortions requiring PAC} \times \text{Total number of induced abortions} = 11,368 \text{ to } 45,471$$

**Total number of safe induced abortions in Zambia**

$$= \text{Total number of induced abortions} - \text{Total number of unsafe induced abortions}$$

$$= 6,015 \text{ to } 18,044$$

Value and sources of data

Unsafe Abortion Rate per 1000 women 15-44 years \*: 15 to 38

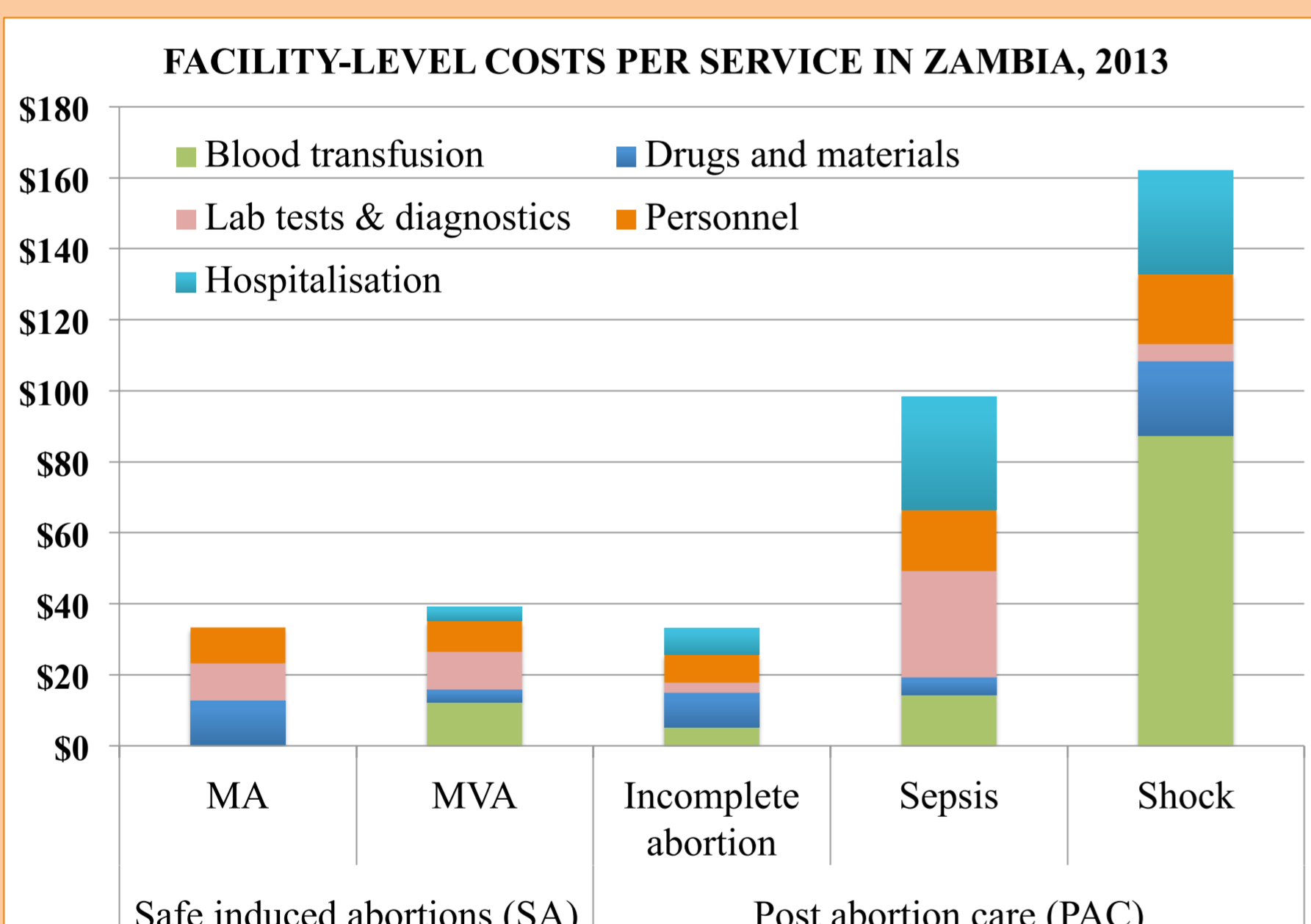
Safe Abortion Rate per 1000 women 15-44 years \*: 9 to 36

Percentage of unsafe induced abortions requiring PAC: 42%<sup>2</sup>

Population of women 15-44 years: 3,007,336

\*Abortion rates for Southern Africa are used as the lower values and abortion rates for Eastern Africa are used as higher values<sup>3</sup>

## RESULTS



## FACILITY-LEVEL AND NATIONAL-LEVEL ANNUAL COSTS FOR SA AND PAC POST- INDUCED UNSAFE ABORTION IN ZAMBIA, 2013

	Costs (\$)
<b>Facility-level</b>	
Safe induced abortion (N=222)	
MA	5,898
MVA	1,772
Incomplete abortion	856
Total cost of SA	8,525
Average cost per SA	38.29
PAC post-induced unsafe abortion (N=2123)	
Incomplete abortion	70,410
Sepsis	37,544
Shock	1,857
Total cost for PAC post-induced unsafe abortion	109,811
Average cost per PAC post-induced unsafe abortion	51.72
<b>National-level<sup>a</sup></b>	
Cost of SA (N=6,015 to 18,044)	230,280 – 690,840
Cost of PAC post-induced unsafe abortion (N= 45,471 to 11,368)	588,005 – 2,351,966
Cost savings <sup>b</sup>	152,774 – 611,046

<sup>a</sup> Due to absence of nationally available data, these calculations are based on numbers obtained from other studies and therefore presented as a range of costs as shown in Box 2. <sup>b</sup> Cost savings if all women who require PAC for induced unsafe abortion were to receive an induced SA

## CONCLUSION

- The Zambian health system would save \$13.43 per case (i.e. \$152,774 to \$611,046 per year) if each woman treated for a complication of unsafe abortion had instead accessed these services for SA.
- The Zambian health system spends between \$588,005 and \$2.4 million per year on PAC due to unsafe induced abortions.
- Ultimately costs could be reduced further if unintended pregnancies were reduced through the uptake of family planning. Zambia has a high level of unmet need for contraception at 27% (DHS 2007).

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