Reducing maternal mortality due to unsafe abortion: The Ghana Paradox

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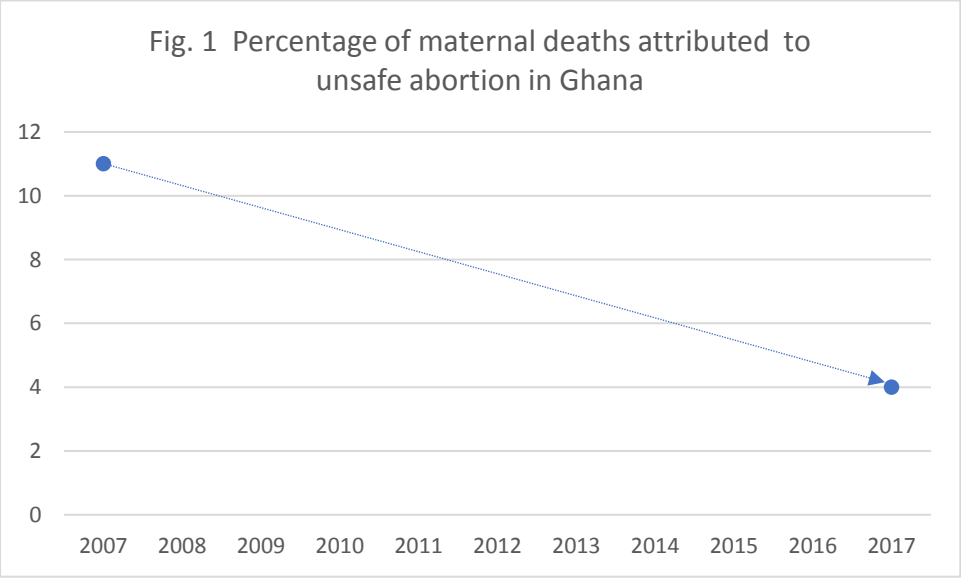
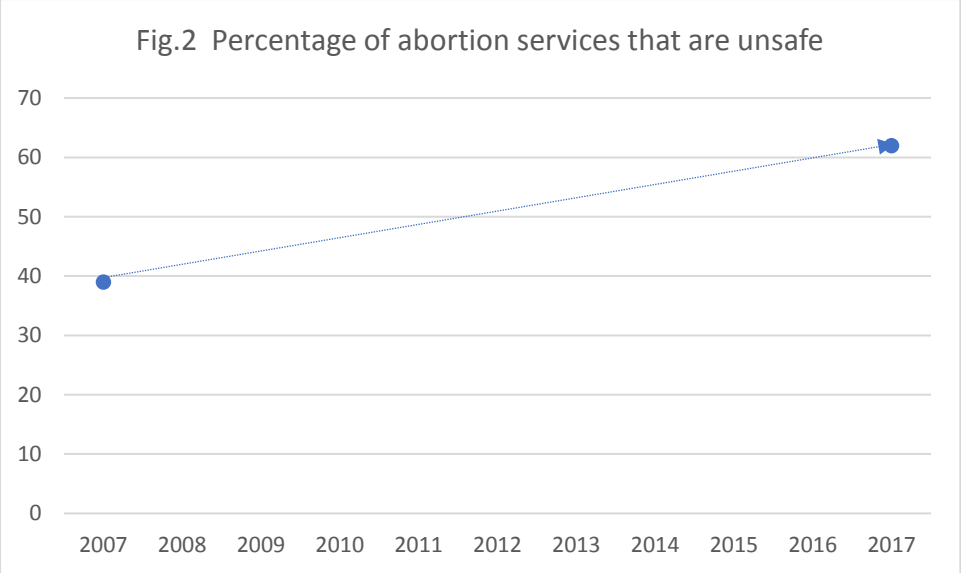
Introduction

Maternal mortality is a problem in many developing countries, especially those in Sub-Saharan Africa. The regional maternal mortality ratio, estimated to be 546 per 100000 live births, is by far the largest in the world, more than double the world average of 216/100000 live births [1]. A major contributing factor to this high maternal mortality ratio in the region, including Ghana, is unsafe abortion [2, 3]. The contribution of unsafe abortion to maternal mortality in the region is estimated to be over 37 deaths per 100000 live births [2]. Thus in spite of the efforts governments and respective partners are making, unsafe abortion and its consequences are still public health issues. With most of the countries having restrictive abortion laws, there are lots of clandestine abortion services making the region record the highest proportion of abortions that are unsafe [3, 4, 5]

It follows, and perhaps needless to say that there is a positive relationship between unsafe abortion and abortion-related maternal mortality. However, Ghana's story of unsafe abortion and its related maternal mortality does not follow this expected trend, at least in the last ten years or so. In 2007 maternal mortality due to unsafe abortion was substantial, estimated to be 11% [6]. This shows that in spite of the existence of favorable legal conditions, unsafe abortion and its effect on maternal mortality were still high in the country. To reduce it, Ghana Health Service (GHS), with support from various partners implemented a policy to increase access to safe abortion services by expanding the provider cadre to include midwives. This was backed by the development of the Standard and Protocol document that further gave clearer direction to what the law requires as far as the provision of safe abortion services is concerned. The implementation of this policy has been largely successful in reducing maternal mortality due to unsafe abortion from 11% to just 4% between 2007 and 2017 [7] as shown in Figure 1 below.



However, in the same period, unsafe abortion as defined by the World Health Organization and enshrined in the Standard and Protocol for abortion service as a pregnancy termination that is performed either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards or both [8], increased from 39% to 62% as shown in Figure 2 below. Our aim in this paper is to attempt to explain the reasons behind this paradox. But more importantly, we raise a more fundamental issue of the definition of unsafe abortion that we hope will take the discussion around the provision or administration of safe abortion services.

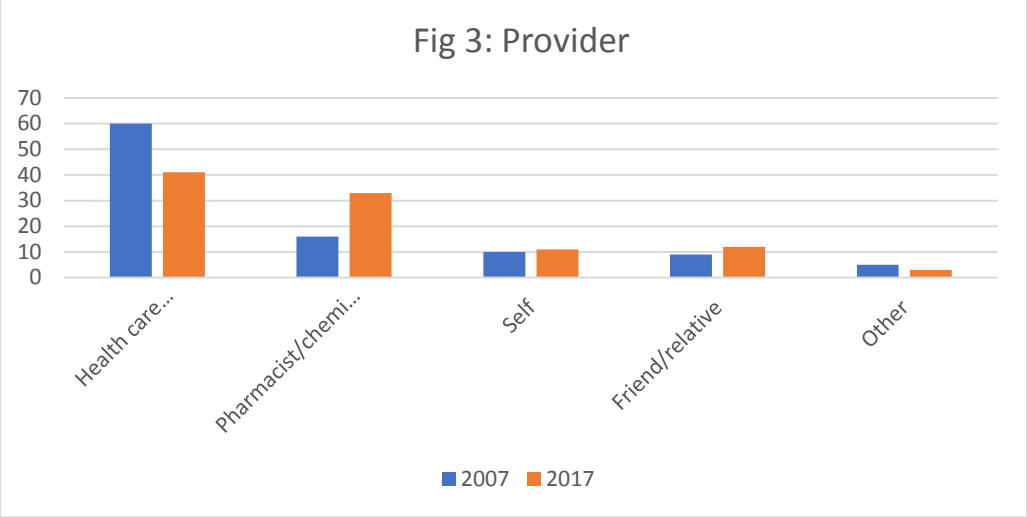


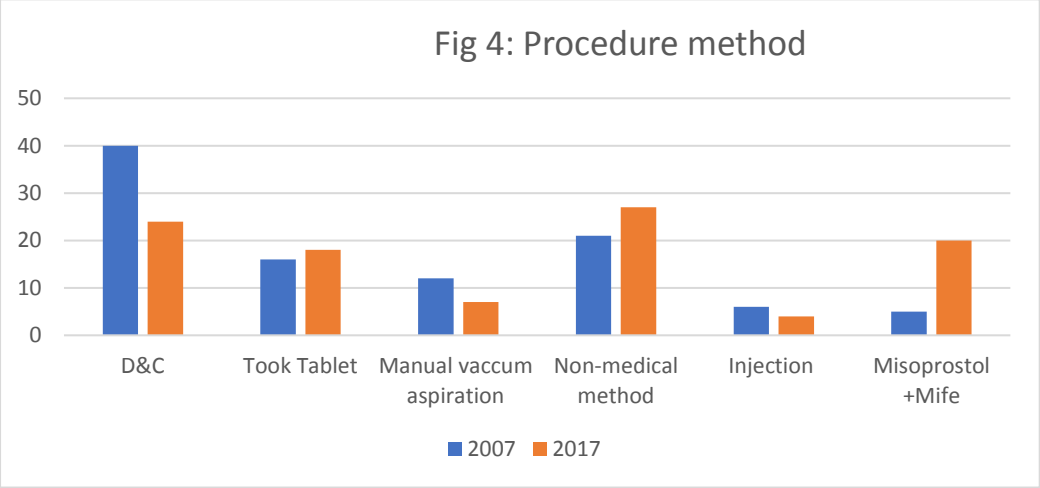
Method

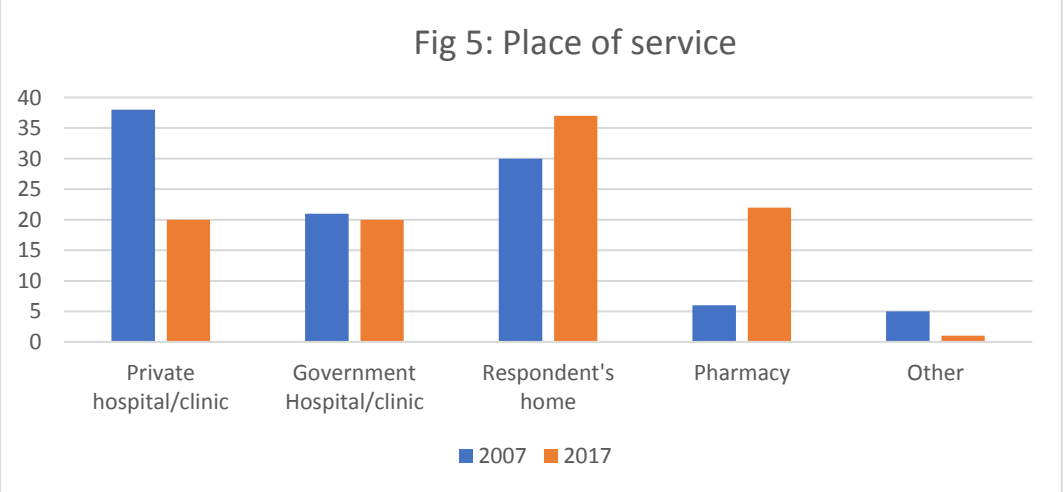
The Ghana Maternal Health Survey of 2007 was done as a form of baseline assessment before the full implementation of the Standard and Protocol on abortion services. In 2017 the survey was repeated to help gauge the progress made so far after the implementation. Using both surveys, we first determine safe versus unsafe service levels based on the WHO definition. We then examine the reasons behind this paradox of seemingly inverse relationship. Basically, we use descriptive statistics to compare access points, cadre of providers, knowledge of where to get safe services, method of procedure, morbidity, etc. We then employ logistic regression to determine key factors that influence safe abortion services in 2007 and 2017.

Preliminary Results

Figures 3-5 are preliminary results from descriptive statistics comparing the provider or person who assisted in the administration of the procedure, the method of the procedure, and the place of administration between 2007 and 2017. Within the period proportion of women whose services were provided or assisted by healthcare personnel such as physicians and midwives reduced from 60% to 41% while that of pharmacists and over-the-counter medicine sellers (chemical sellers) more than doubled from 16% to 33%. Also while there was a significant reduction in D&C and MVA procedures, the use of medication abortion drugs such as misoprostol-only and combination drugs increased significantly. The use of combination drugs, for example, increased by four times to 20%. While the use of private facilities declined significantly during the ten years, there was an equally appreciable







increase in the use of Pharmacies/chemical shops as well as individual homes for the administration of the procedure, mainly the medication drugs.

	Percentage of Safe Abortion service		
	2007	2017	Pearson Test of proportions
Age			
15-17	44	34	0.614
18-24	49	29	0.001
25-35	66	40	0.000
35+	74	53	0.010
Marital status			
Married /Liv tog	63	41	0.000
Not married	56	34	0.000
Religion			
Catholic	57	47	0.358
Protestant	62	38	0.004
Charismatic	60	37	0.000
Islam	58	38	0.169
Traditional/None	50	42	0.700
Education			
Primary	51	32	0.024
Middle/JSS	61	36	0.000
Secondary	72	42	0.000
Higher	100	58	0.003
Wealth			
Poor	35	33	0.834
Middle	45	31	0.091
Rich	70	44	0.000
Place of residence			
Urban	71	39	0.000
Rural	44	37	0.249
Partner attitude			
Favoured	65	41	0.000
Opposed	58	36	0.008
Neutral	48	35	0.412
He didn't know	50	34	0.064
Who paid			
Self	51	35	0.004
Partner	74	41	0.000
Parent/Family member	78	65	0.302
Friend	41	36	0.896
No one	3	14	
Abortion legal			
Yes	75	57	0.097
No	57	35	0.000
Don't know	72	40	0.001
Reason			
Health	80	71	0.385

Economic	53	33	0.006
Fertility	59	40	0.013
Social	64	35	0.000
Other	54	34	0.368

Some preliminary conclusions

As stated earlier the WHO defines unsafe abortion service as a pregnancy termination that is performed either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards or both [8]. Given this definition, it is not surprising that the proportion of unsafe abortions over the last ten years has increased as more and more women preferred to seek procedures from chemical sellers or pharmacists and had administration of the procedure at home or in shops. With its positive association with morbidity and maternal deaths, one would expect the contribution of unsafe abortion to maternal mortality in Ghana to increase, but this has rather not been the case at least in the last ten years or so. The mediating factor seems to be the increasing self-use of medication abortion drugs being procured from pharmacies and chemical shops mostly without prescription. The current policy in Ghana is that chemical shops cannot stock medication abortion (MA) drugs, pharmacies can stock, but cannot dispense without a prescription from physicians. Two possible policy implications: one, if medication abortion self-use is proving to be less risky as suggested by the above result, is it time to start reviewing the policy to allow pharmacies to dispense the drugs without prescription from physicians? Two, can the policy be expanded to include pharmacies and chemical shops as approved environments that meet the minimal medical standard for the administration of the MA? Or perhaps it is too early to start this discussion or maybe it is time for WHO to start rethinking redefining unsafe abortion. Further analyses that include morbidity, will perhaps tell.

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