



**epicentre**  
ÉPIDÉMIOLOGIE • EPIDEMIOLOGY



**Ipas**

# High severity of abortion complications in fragile and conflict-affected settings

AMoCo, a mixed-methods cross-sectional study in two referral hospitals in sub-Saharan Africa

MSF Scientific Day International – 7 June 2023

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<sup>1</sup>Epicentre – Médecins Sans Frontières, <sup>2</sup>Institute of Tropical Medicine of Antwerp, <sup>3</sup>Ghent University, <sup>4</sup>Ipas, <sup>5</sup>Médecins Sans Frontières, <sup>6</sup>Guttmacher Institute,

<sup>7</sup>IntraHealth International, <sup>8</sup>Institute of Tropical Medicine, Antwerp, <sup>9</sup>London School of Hygiene and Tropical Medicine, <sup>10</sup>Ministère de la Santé, République Centrafricaine

# Abortion complications - Background

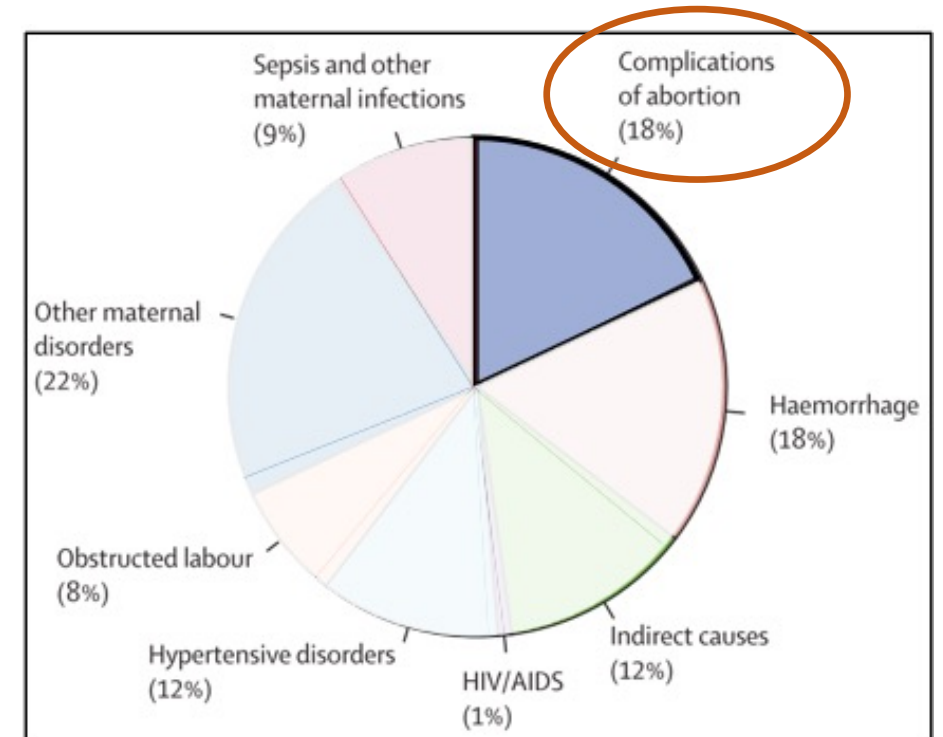


Fig 1: Main causes of maternal deaths<sup>1</sup>

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- One of the 5 main direct causes of maternal mortality<sup>1</sup>
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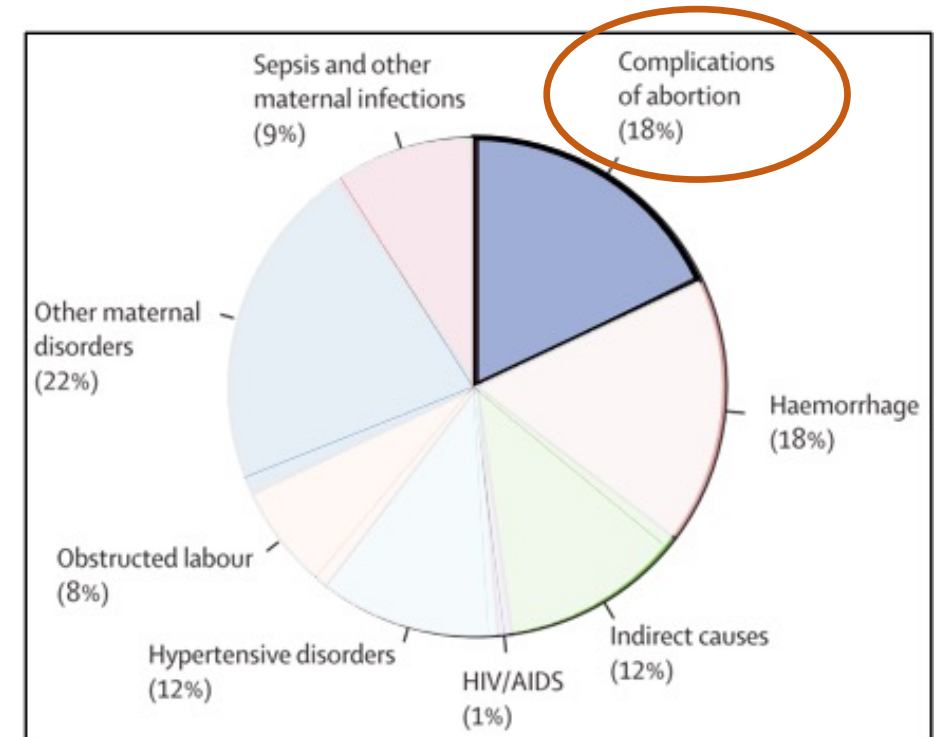


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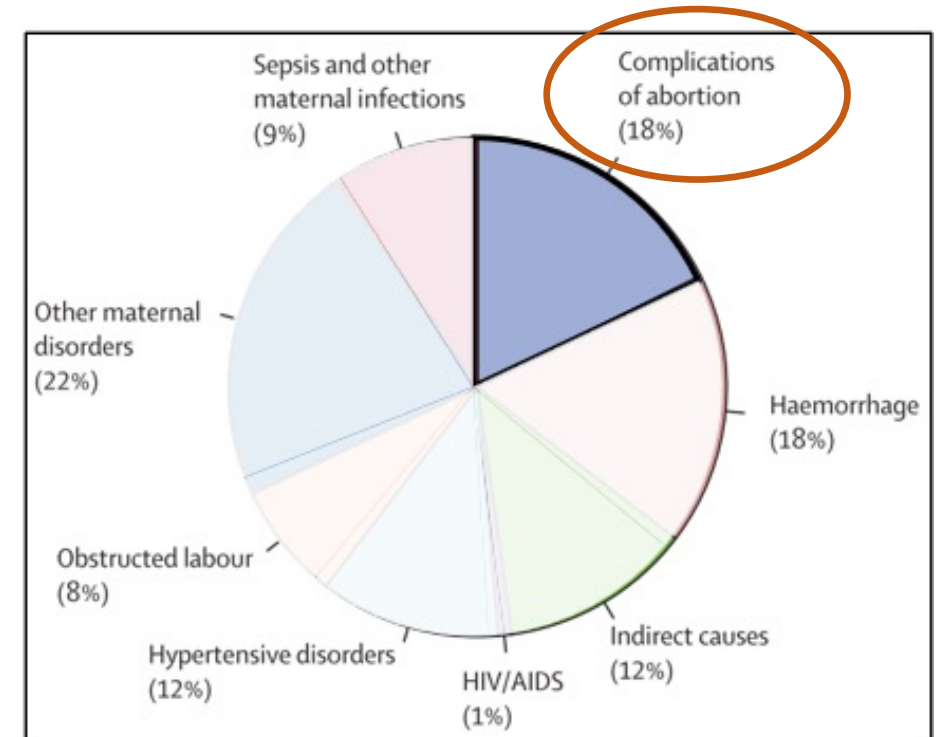


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- **In fragile and conflict-affected settings**

- No data on abortion complications

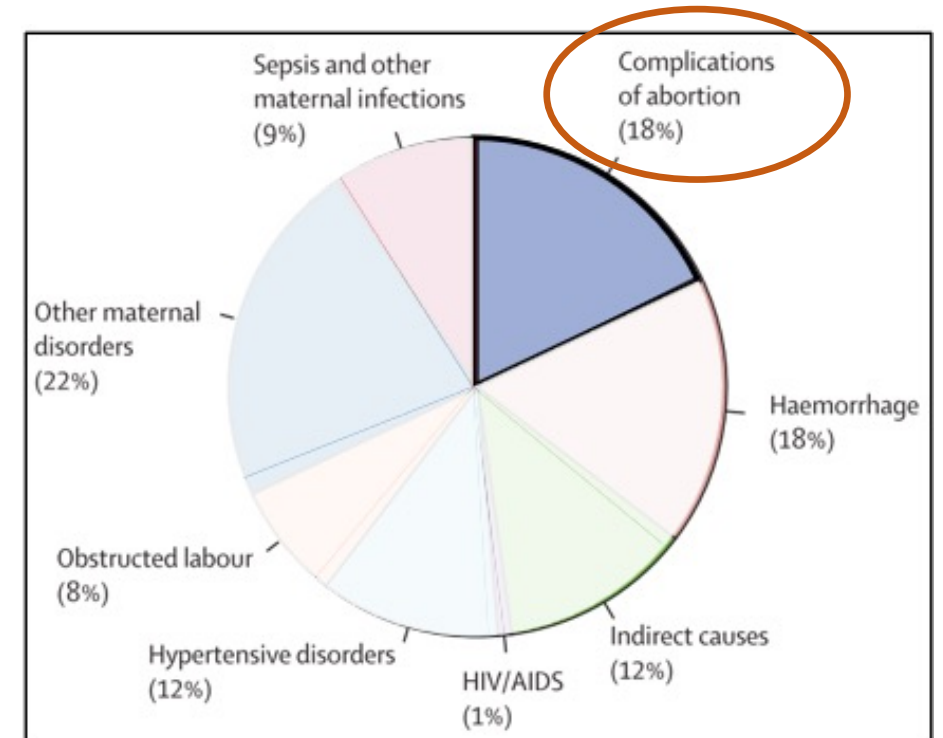


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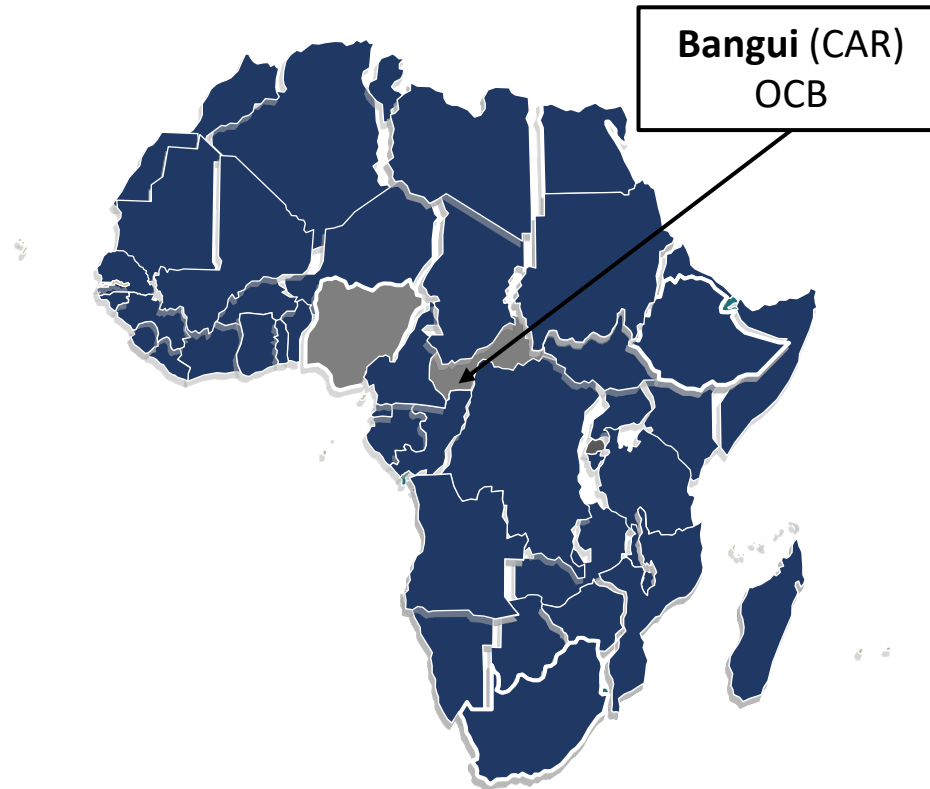




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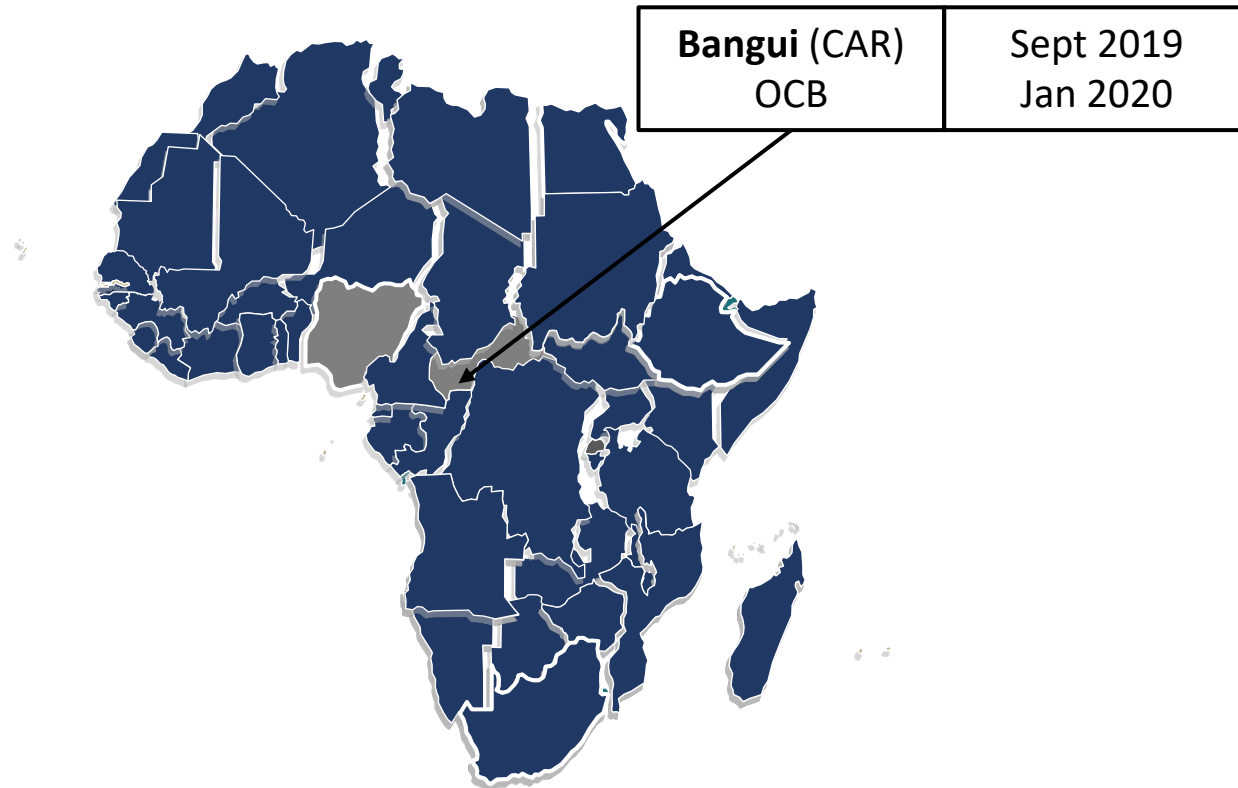
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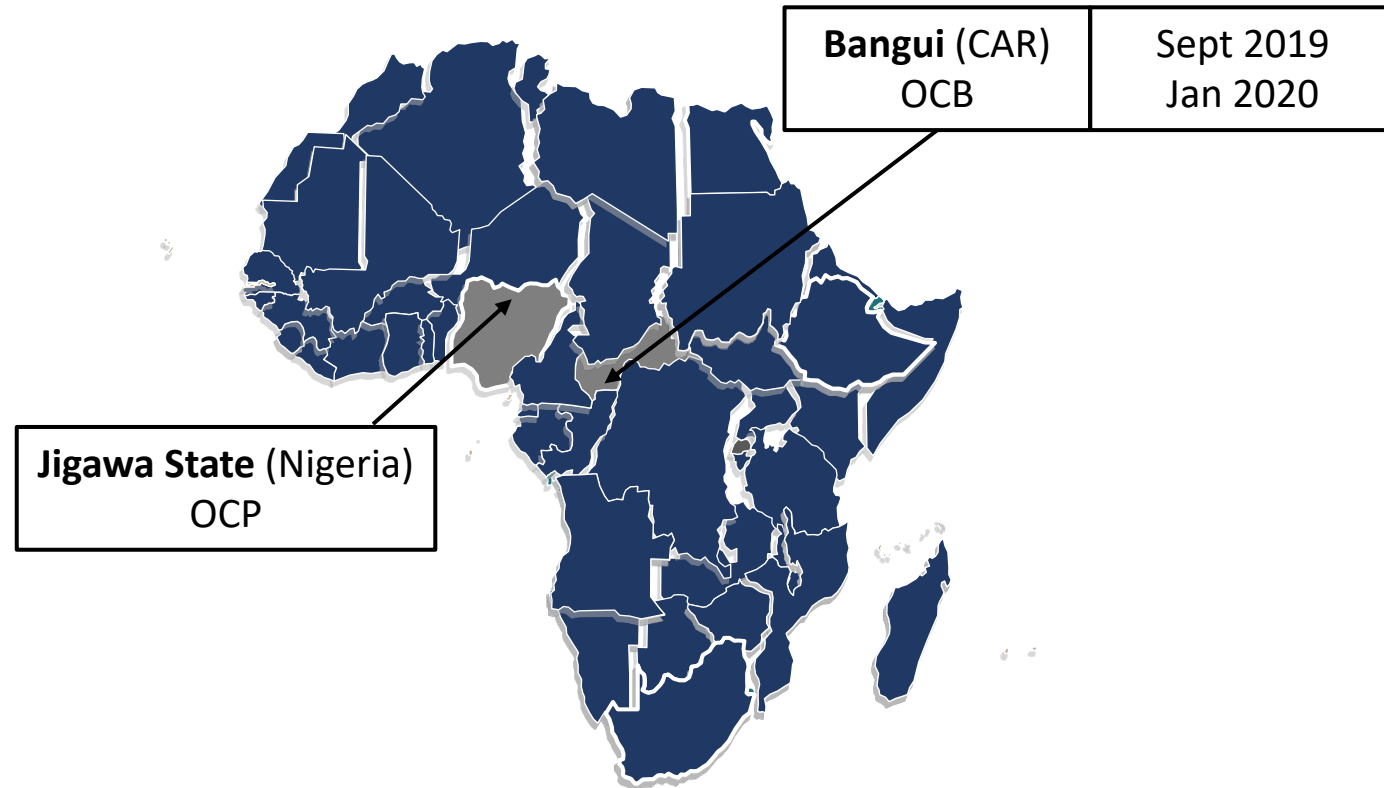
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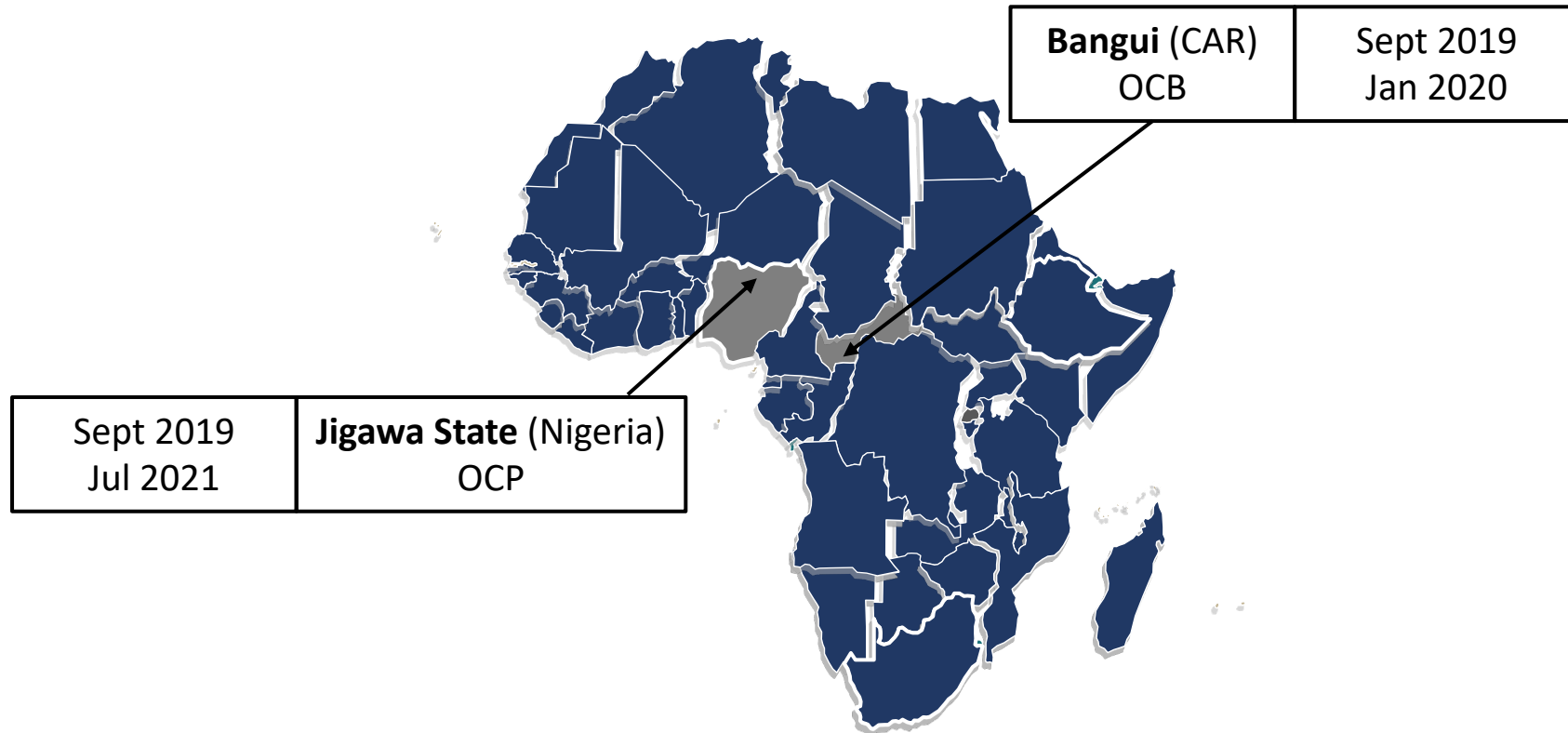
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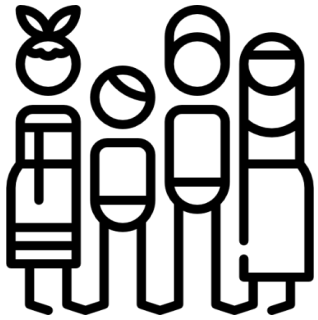
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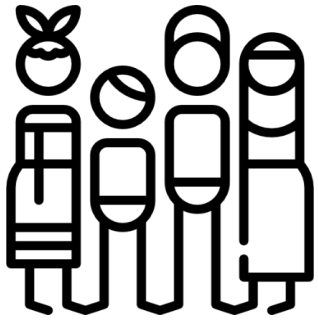
*Patients with abortion  
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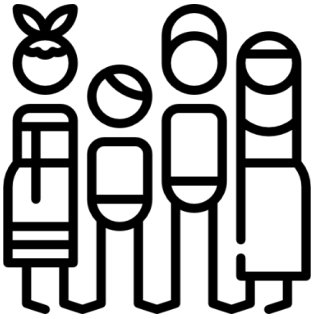
**Clinical study**

All women

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**Quantitative survey**

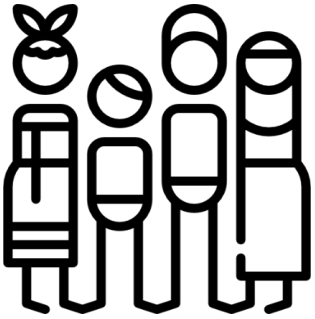
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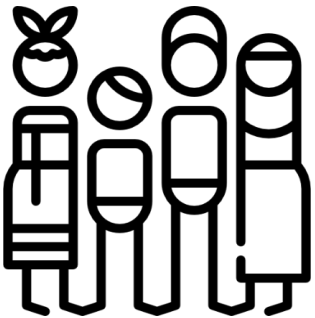
Hospitalized

**Qualitative study**

Severe

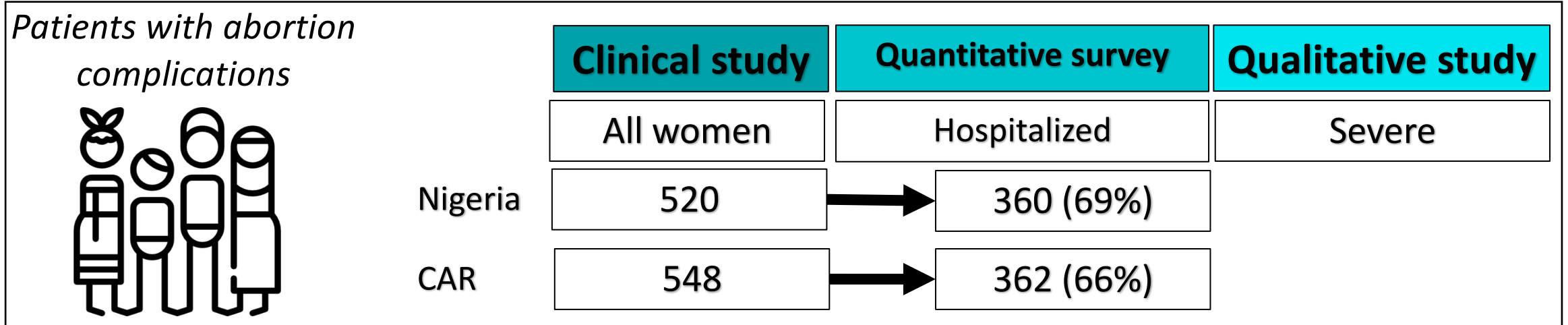
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<i>Patients with abortion complications</i>		<b>Clinical study</b>	<b>Quantitative survey</b>	<b>Qualitative study</b>
		All women	Hospitalized	Severe
	Nigeria	520		
	CAR	548		

# Methodology

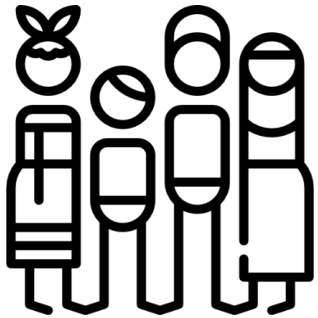
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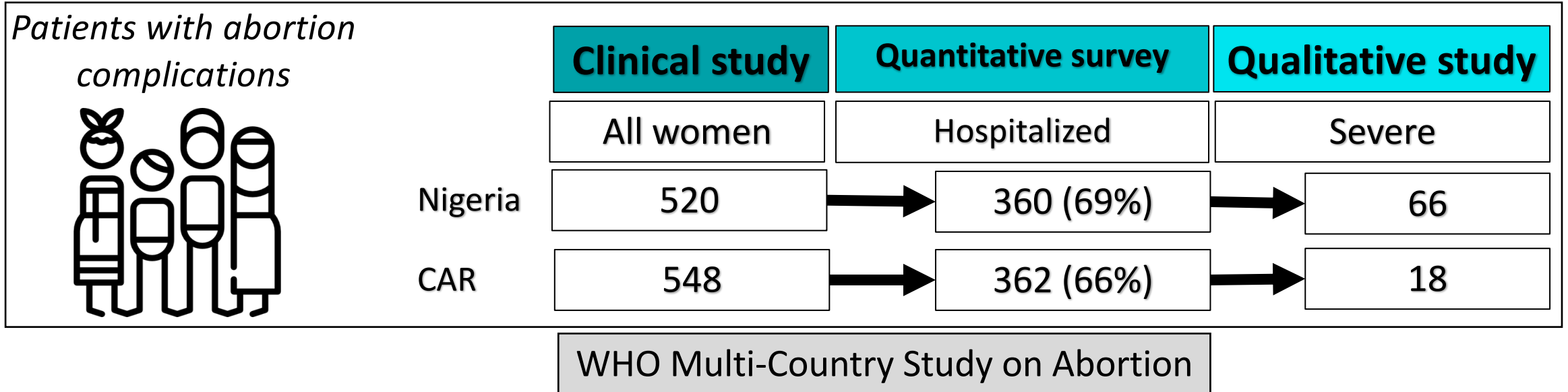
*Patients with abortion complications*



	Clinical study	Quantitative survey	Qualitative study
	All women	Hospitalized	Severe
Nigeria	520	360 (69%)	66
CAR	548	362 (66%)	18

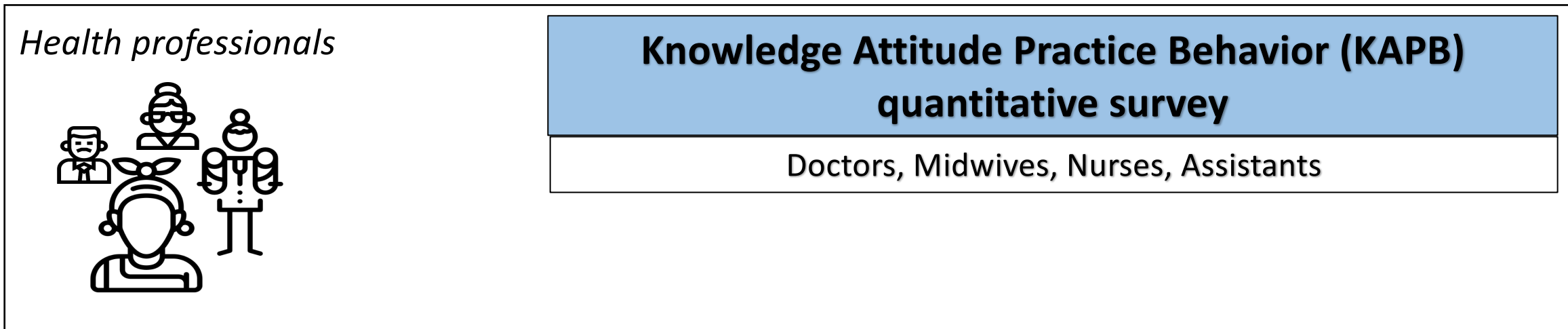
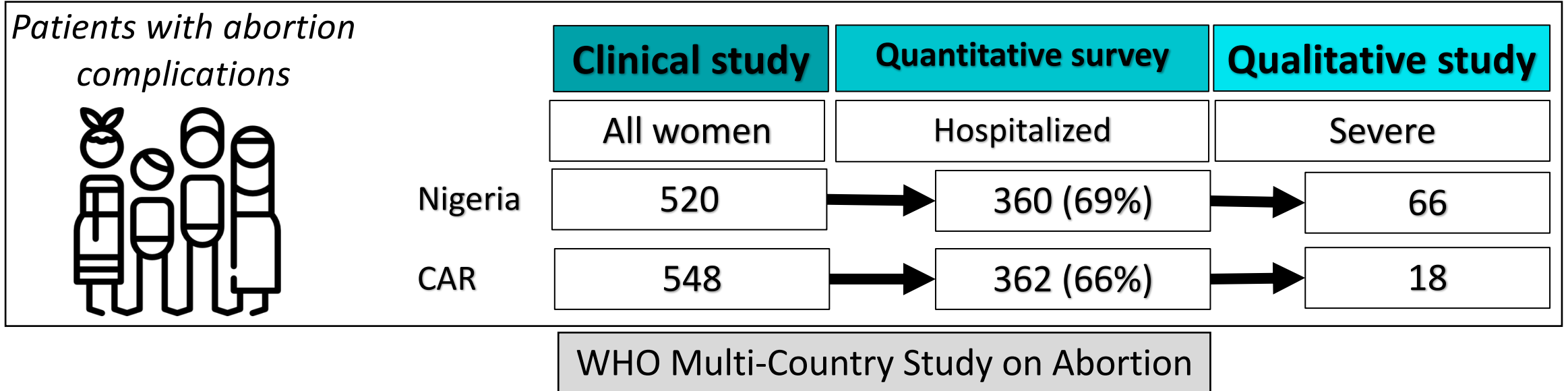
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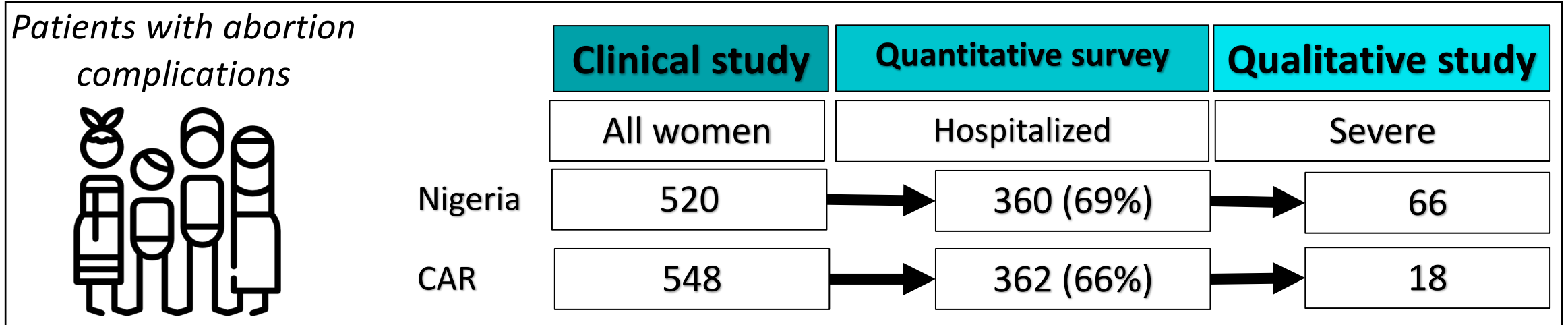
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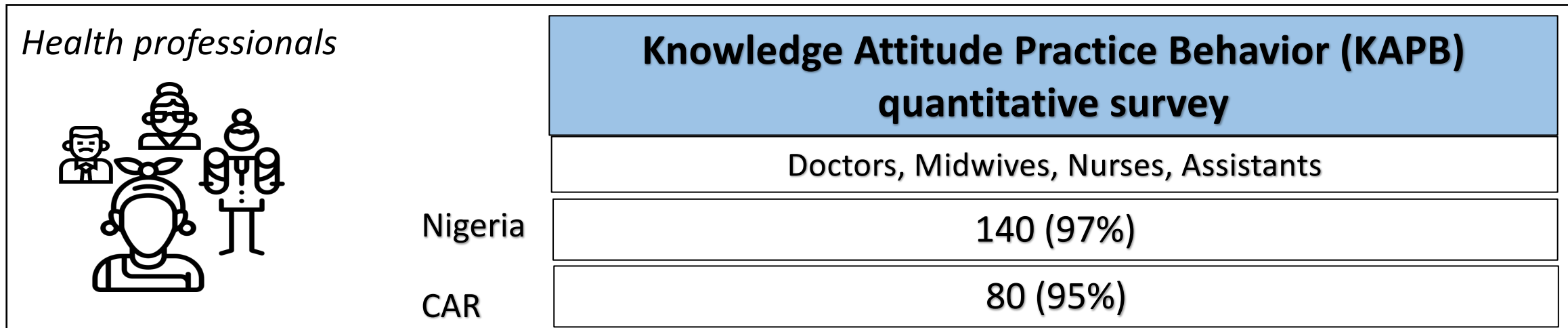


# Methodology

- Cross-sectional mixed-method study with 4 components:



WHO Multi-Country Study on Abortion



# Results : Women characteristics



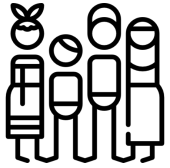
**Clinical study**

**Quantitative survey\***

DEMOGRAPHIC AND REPRODUCTIVE CHARACTERISTICS		NIGERIA	CAR
		%	%
		N=520	N=546
Age (years)	≤19	16.7	26.0
	20-29	43.3	51.5
	≥30	40.0	22.5
		N=360	N=360
Education*	No formal	61.7	0.8
	Any primary	27.8	27.2
	≥ Any secondary	10.5	72.0
		N=488	N=514
Gestational age (weeks)	<13	38.5	67.1
	13-28	61.5	32.9



# Results : Women characteristics

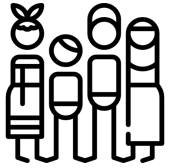


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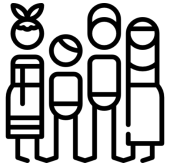


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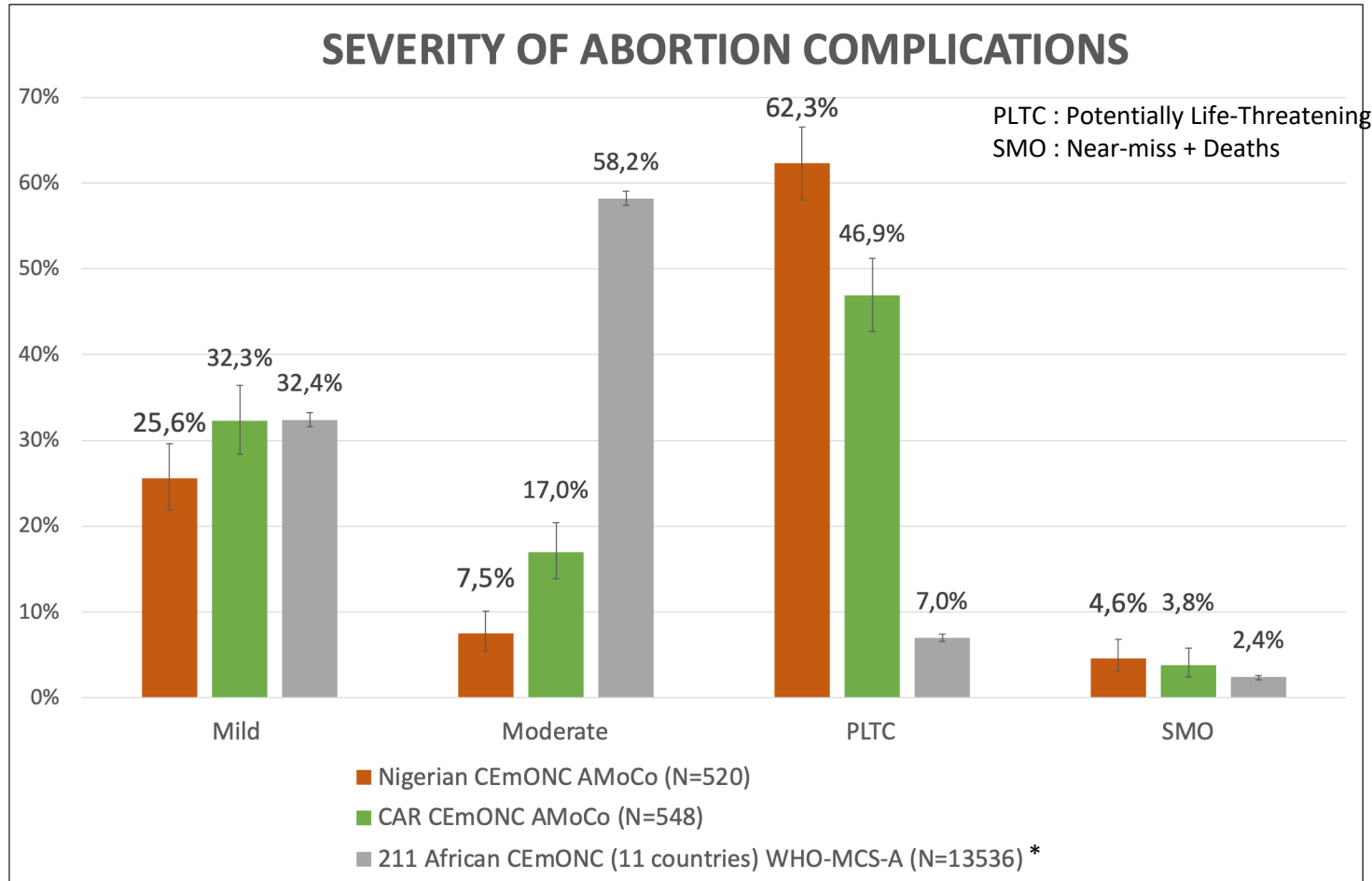


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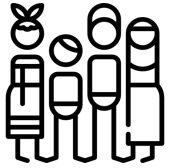


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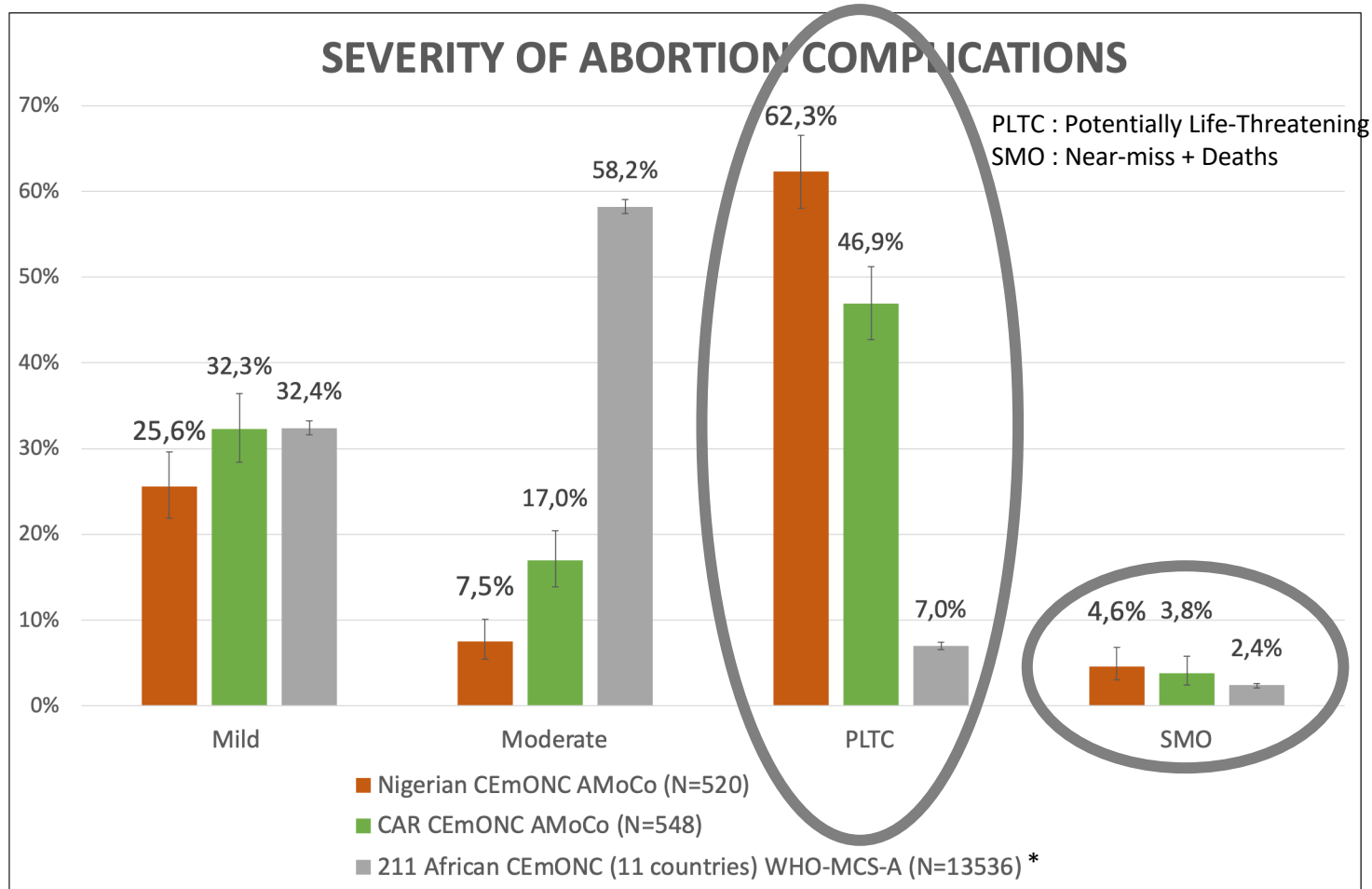


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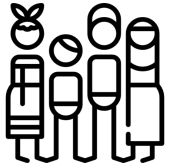


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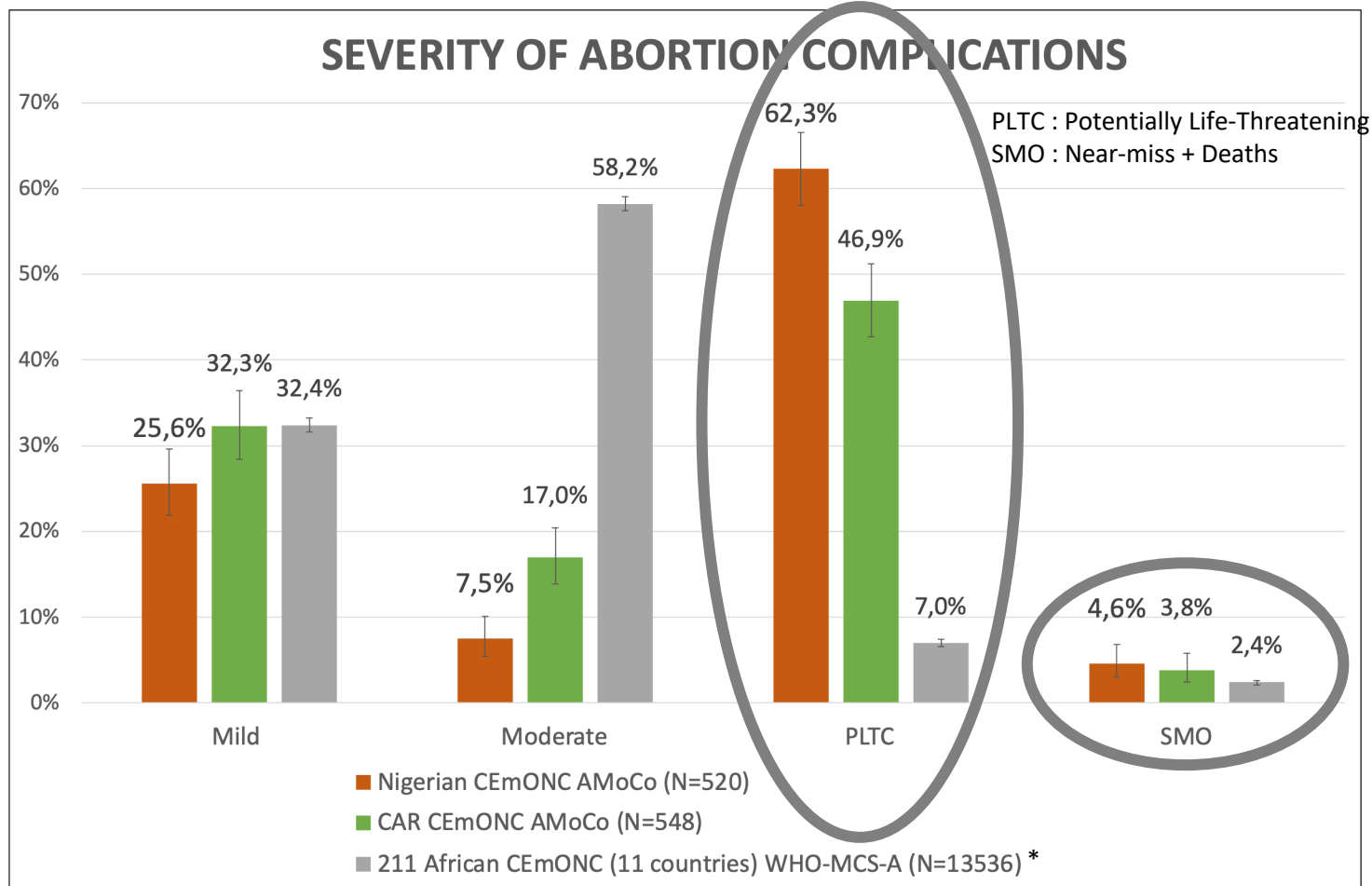


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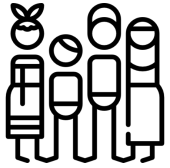
## KAPB survey

### PERSONAL EXPERIENCE

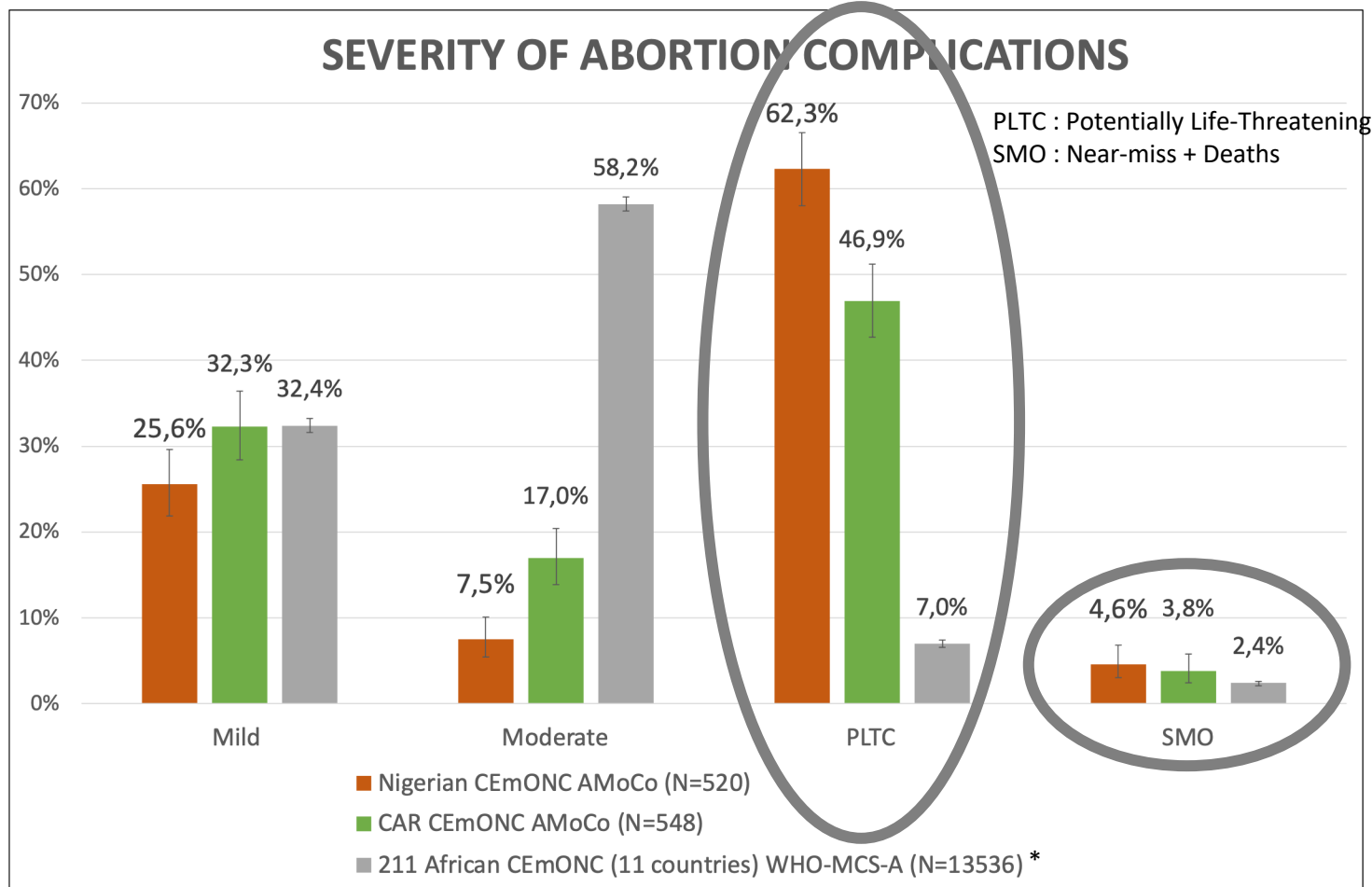
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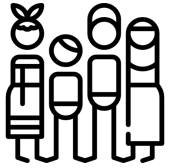
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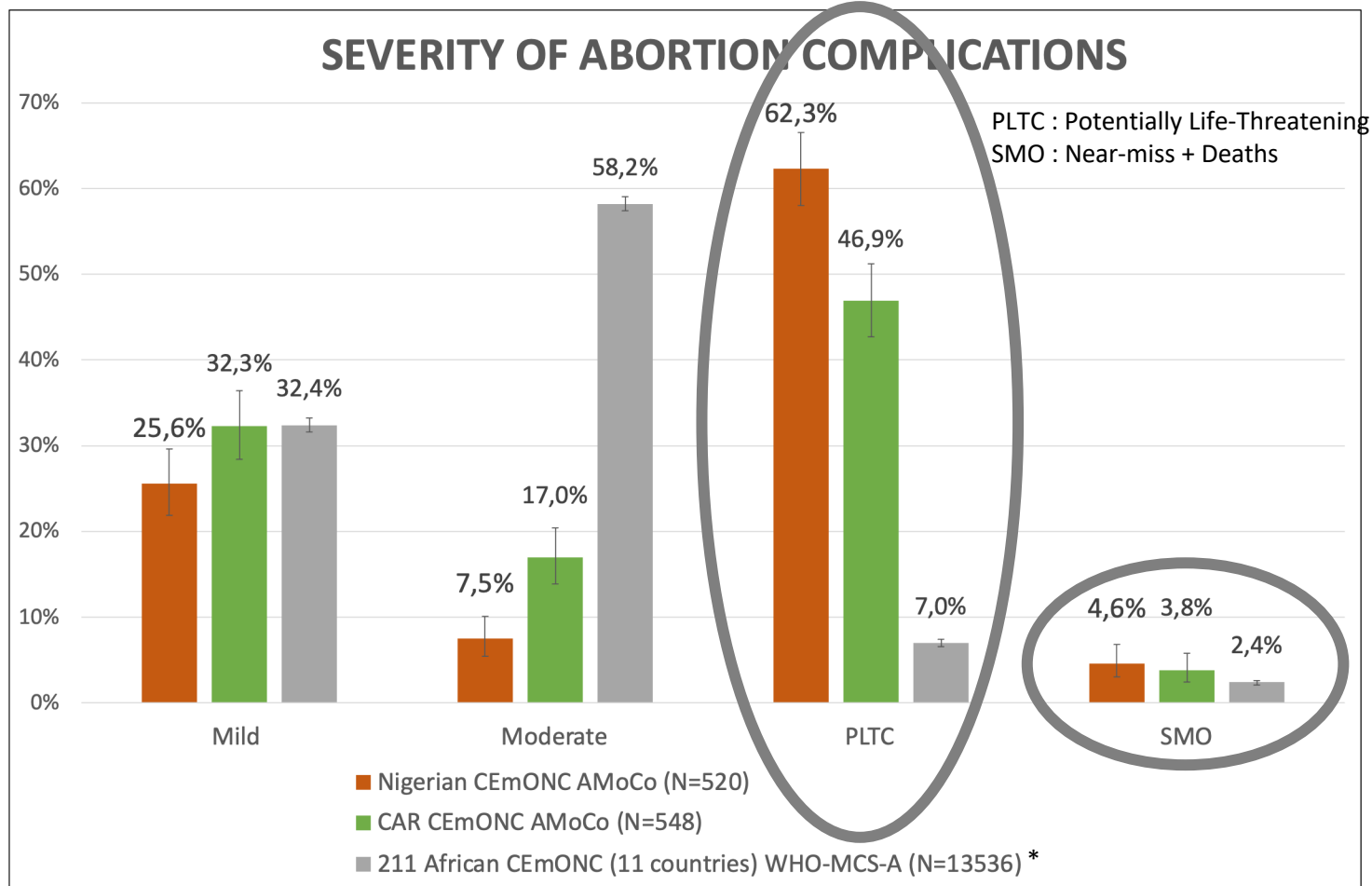
- **Nigeria: 60%** **PERSONALLY KNEW** a woman who had **DIED** from complications of abortion

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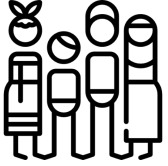


## KAPB survey

### PERSONAL EXPERIENCE

- **Nigeria: 60%**  
**PERSONALLY KNEW** a woman who had **DIED** from complications of abortion
- **CAR : 91%**  
**PERSONALLY KNEW** a woman who had **DIED** from complications of abortion

# Results : Delays to access care



**Quantitative survey**

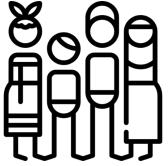
# Results : Delays to access care



## Quantitative survey

- More than **54%** of women **in Nigeria** (N=334) & **50% in CAR** (N=349) took 2 days or more to reach care.

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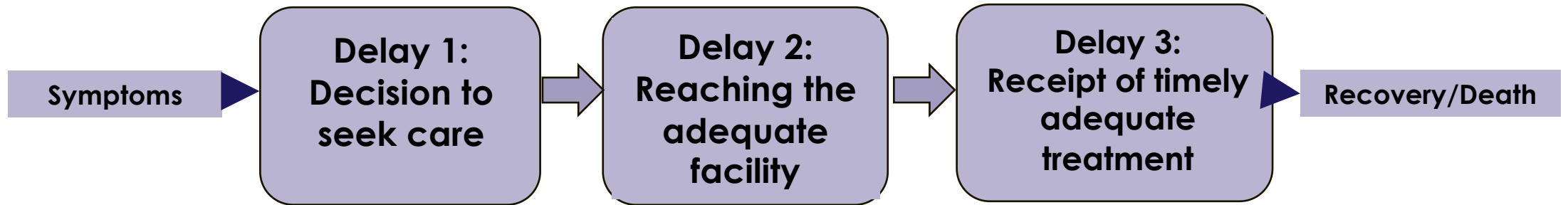


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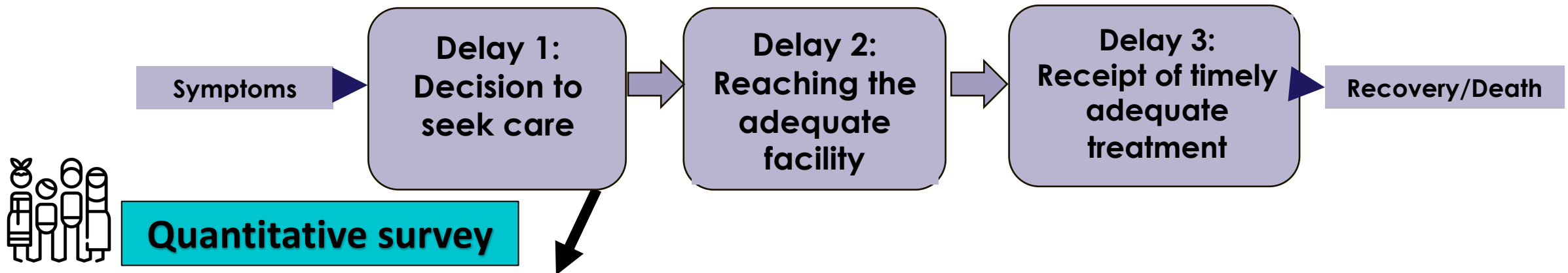
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# Results : Exploring delay n°1

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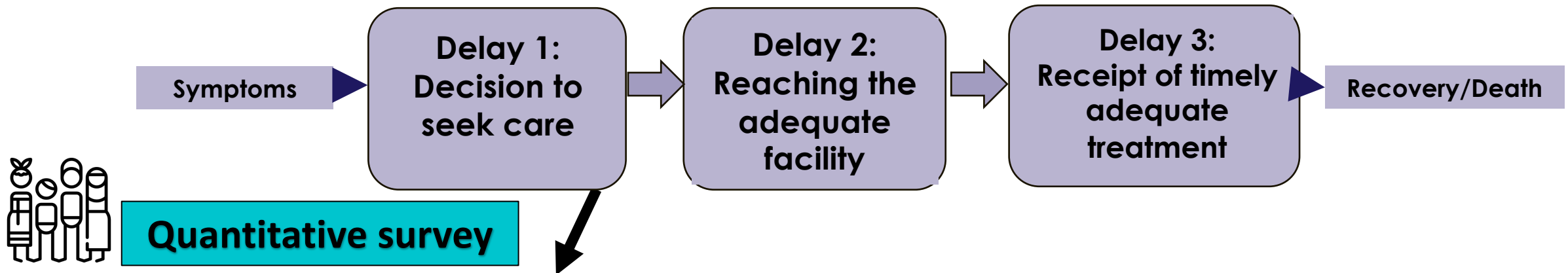
# Results : Exploring delay n°1



First delay	Nigeria (N= 158)	CAR (N= 112)
	%	%
<b>Reasons why the decision took longer than it should have</b>		
The condition was not perceived as serious	48.1	58.0
Did not have enough money	27.2	31.3
Family constraints	39.9	27.7
Didn't know where to go	0.6	4.5
Hospital was too far	2.5	3.6
Lack of transportation available	8.2	3.6
Religion	3.8	8.0

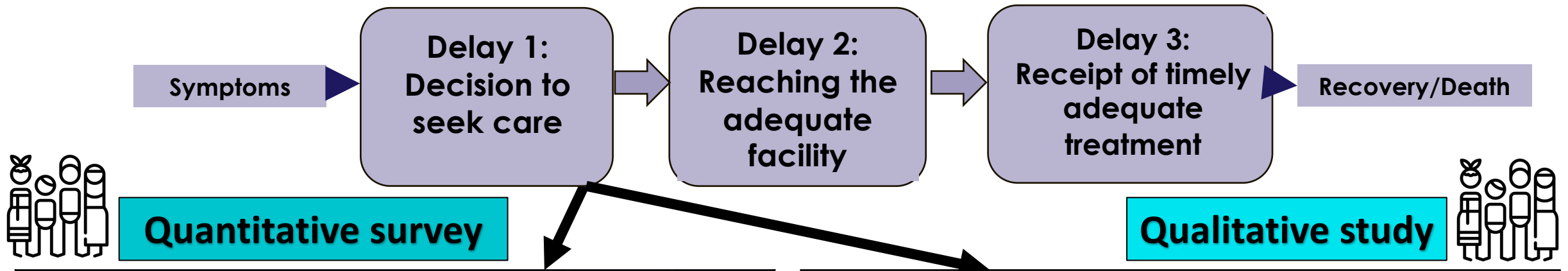


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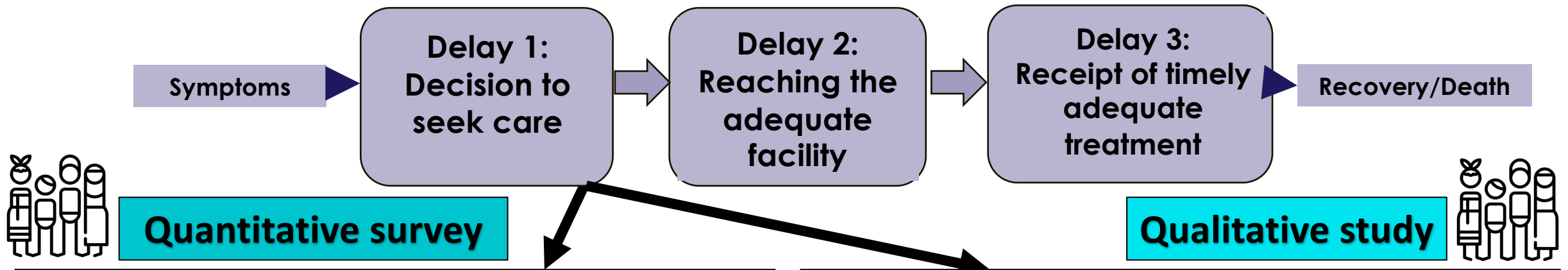
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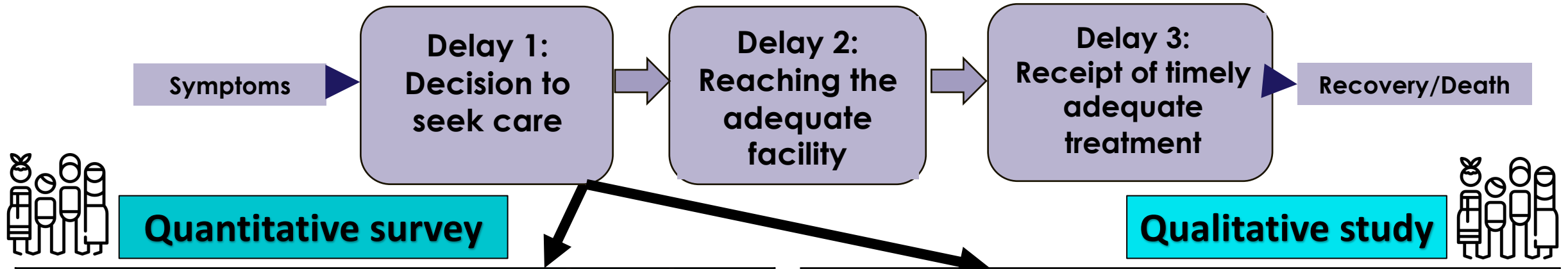


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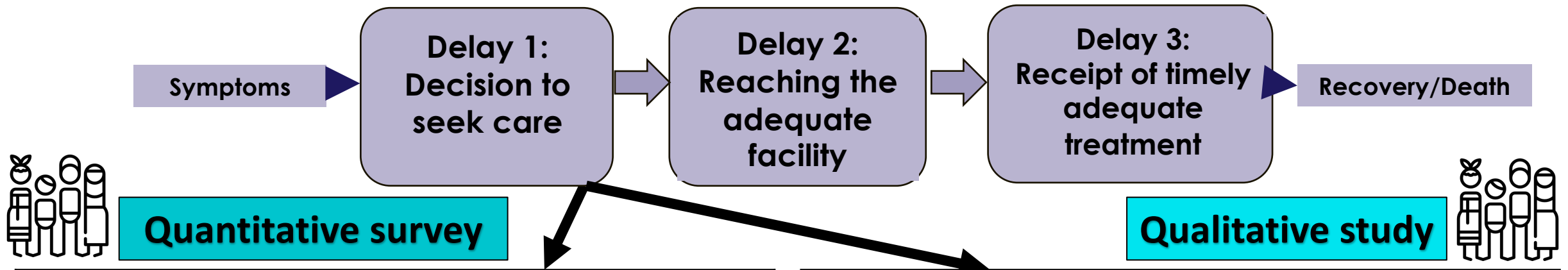


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- In both sites, **delayed recognition of danger-signs**
- In addition:
  - **In Nigeria:**
    - Will of **God**
    - Preference and use of **traditional herbs/providers**
    - **Permission** to seek care from **husband**

# Results : Exploring delay n°1

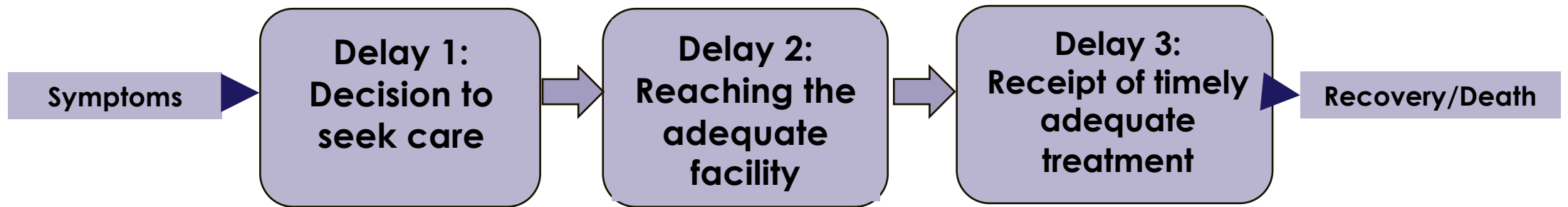


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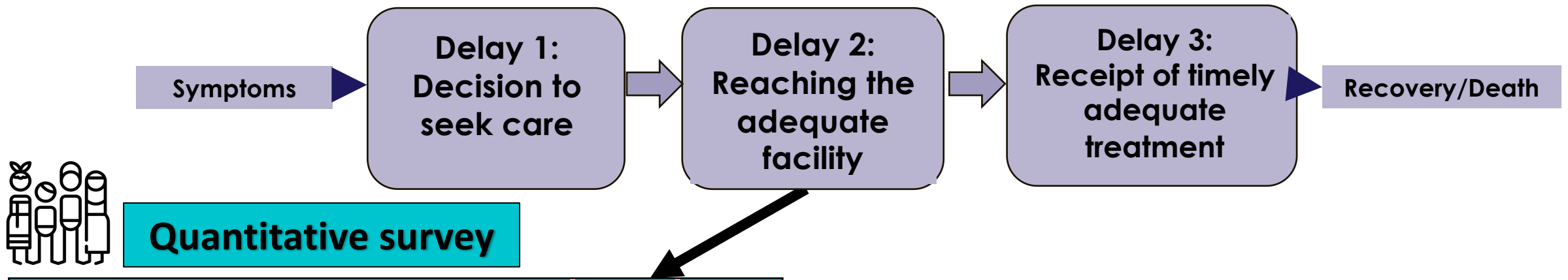
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    - Will of **God**
    - Preference and use of **traditional herbs/providers**
    - **Permission** to seek care from **husband**
  - **In CAR:**
    - Unsuccessful **self-management**
    - **Family constraints**
    - **Fear of disclosure** among women reporting induced abortion

# Results : Exploring delay n°2

# Results : Exploring delay n°2



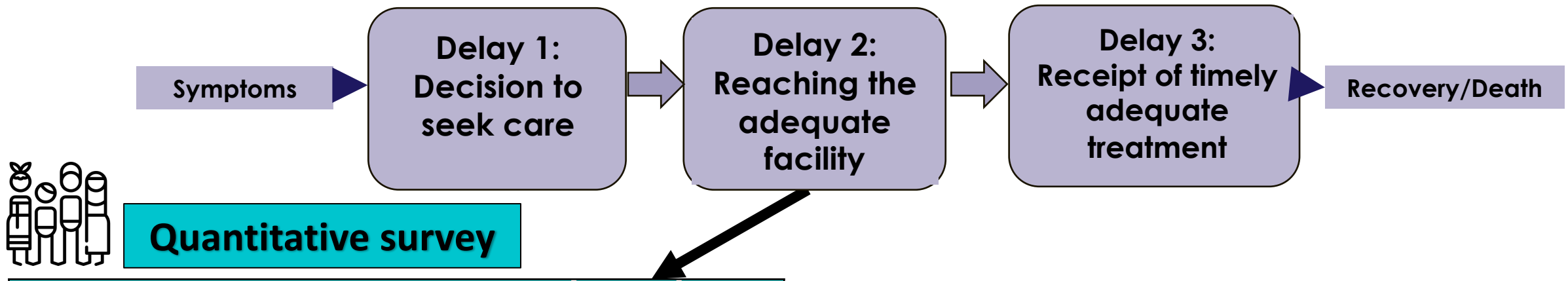
# Results : Exploring delay n°2



Second delay	Nigeria (N= 123)	CAR (N=100 )
	%	%
<b>Reasons why it took that long to arrive at facility</b>		
Went to other health facilities before this one	17.1	58.0
The health facility is far	61.8	25.0
Did not have enough money	18.7	13.0
Lack of people to accompany	13.9	13.0
Lack in transportation available	46.3	11.0
Access was blocked	2.4	3.0
Was in too much pain	13.0	4.0

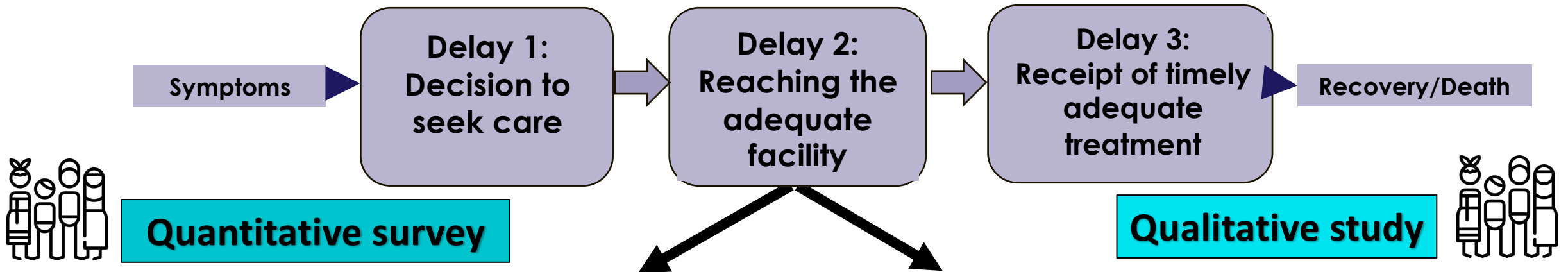


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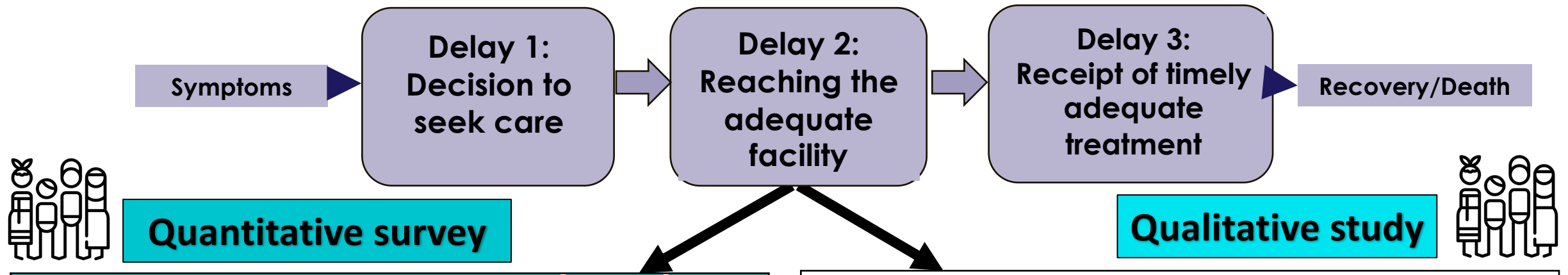
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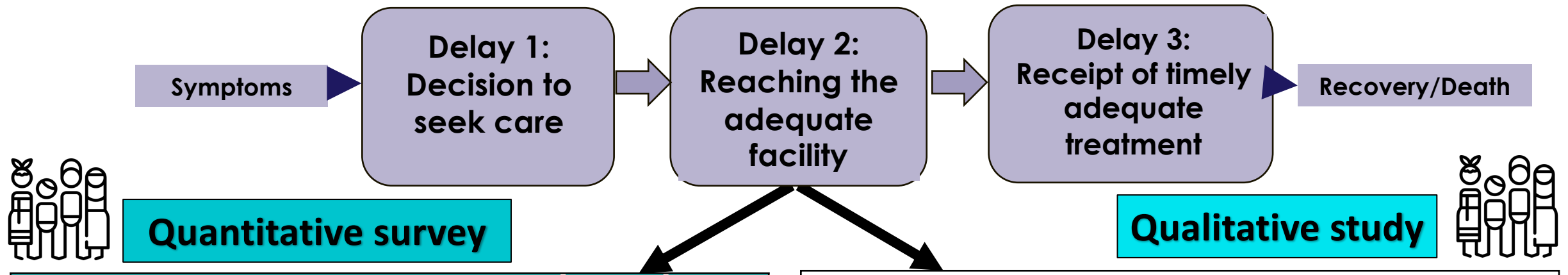
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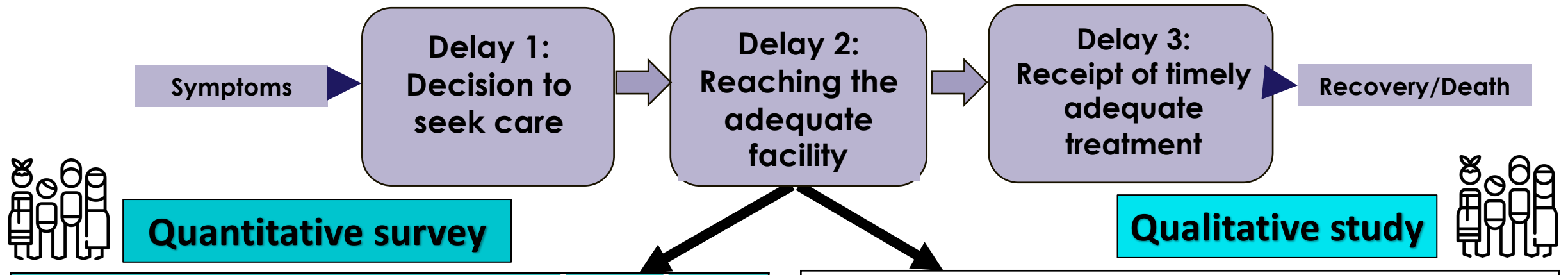
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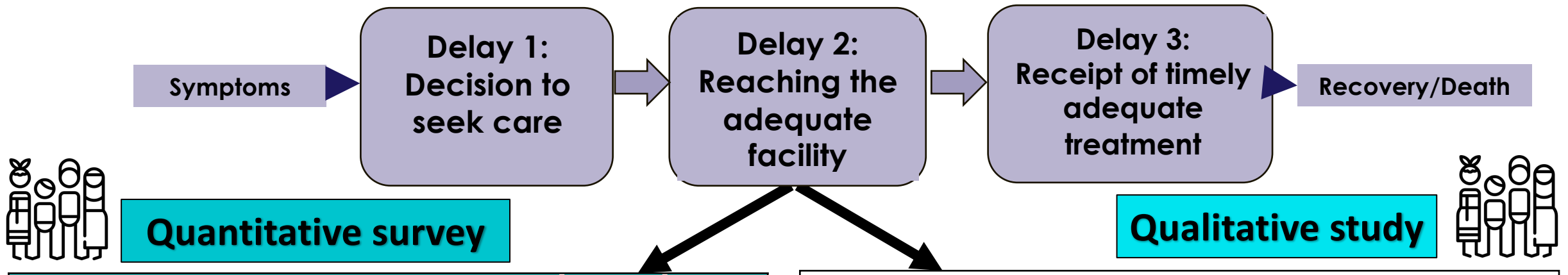
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- **Lack of capacity and low quality of care** in other health care structures
- **Low socio-economic status** : no money for transport and medical fees

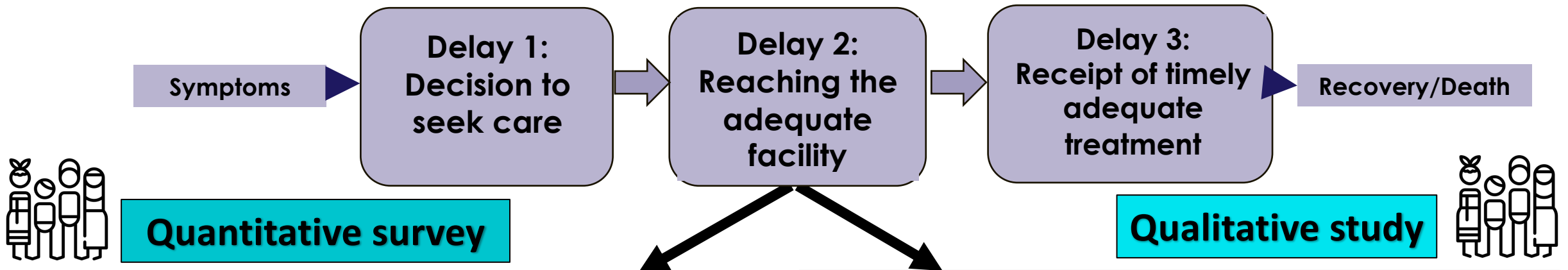
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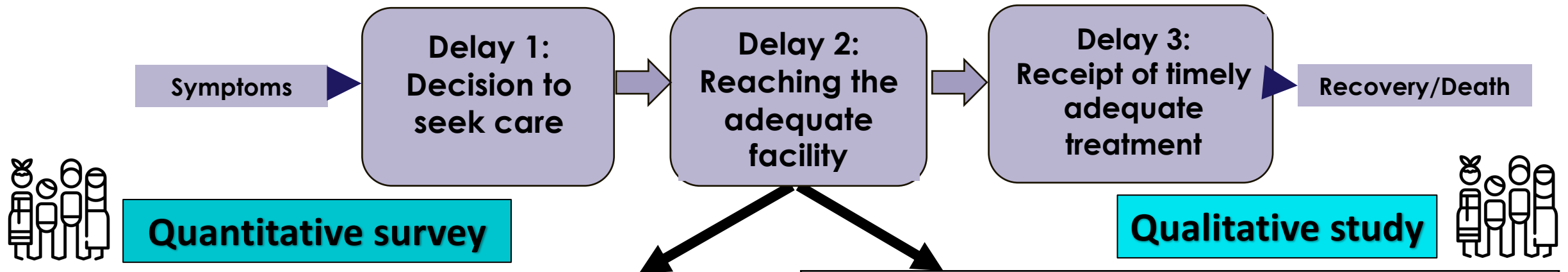
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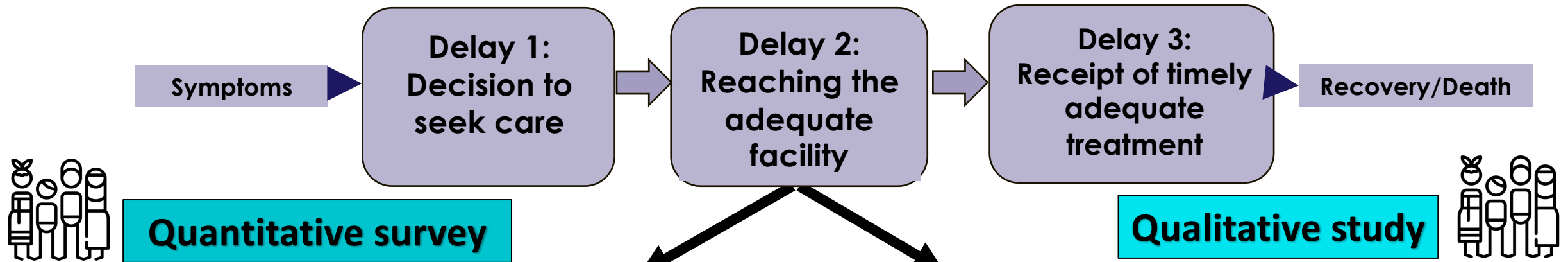


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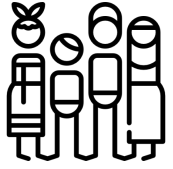


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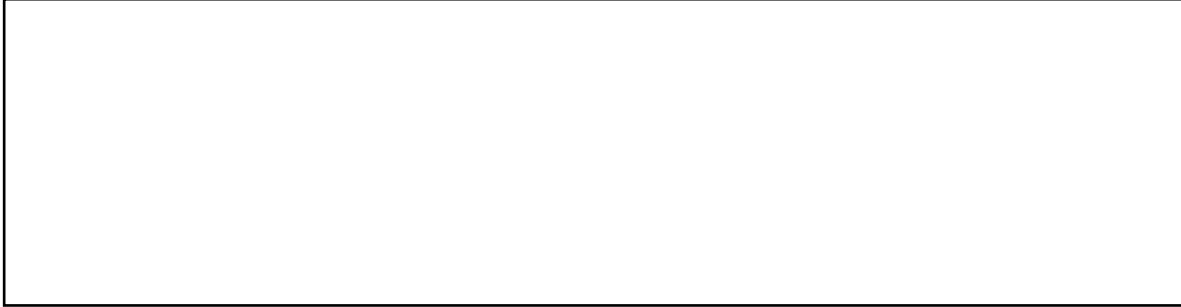
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    - **In CAR** : **stigma** => prioritisation of pregnant women

# Results : Contraception before pregnancy

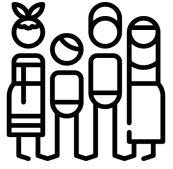
# Results : Contraception before pregnancy



**Quantitative survey**



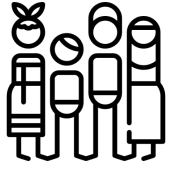
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## Quantitative survey

**CAR : 37% Nigeria: 3%** used a modern contraceptive method at the start of the pregnancy, mainly **injectables, pills, implants**

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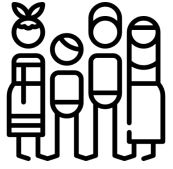


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Child desire	47.4	30.4
Husband objection	14.9	13.2
Did not know they could get pregnant	13.4	7.0
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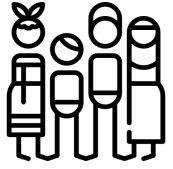


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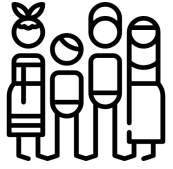


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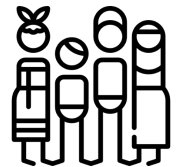
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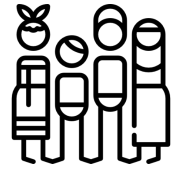
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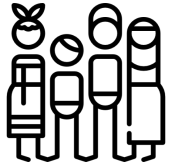
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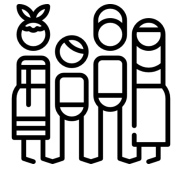
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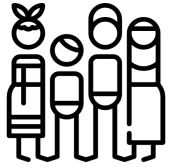


## Qualitative study

### In CAR

- **Barriers to contraceptive refill : not able to pay** the contraceptive or the transport for timely refills => buy them from **unreliable vendors**.

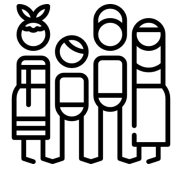
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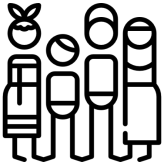
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### In Nigeria

- Participants report not using contraception due to **trusting in God's (Allah's) plan**

# Results : Reported induced abortion



Clinical study

Quantitative survey

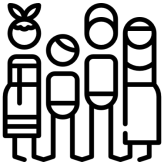
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	n	%	95%CI	n	%	95%CI	n	%	95%CI
	N=360			N=362			N=3091*		
Induced abortion	84	<b>23.3</b>	19.2-28.0	164	<b>45.3</b>	40.1-50.6	602	19.5	18.1-20.9
	N=83 (1 missing)			N=156 (8 missing)					
Safe	2	<b>2.4</b>	0.3-8.4	32	<b>20.5</b>	14.5-27.7			
Unsafe	81	<b>97.6</b>	91.6-99.7	124	<b>79.5</b>	72.3-85.5			
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Septic abortions	97	<b>18.7</b>	15.4-22.3	148	<b>27.0</b>	53.6-62.0	974	7.1	6.7-7.6

\* Qureshi et al. WHO-MCS-A. *BMJ Glob Health* 2021; 6:e003702

\*\*Baguiya et al. *IJGO* 2022;

10.1002/ijgo.14032

# Results : Reported induced abortion



Clinical study

Quantitative survey

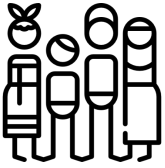
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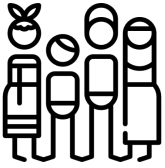
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Clinical study

Quantitative survey

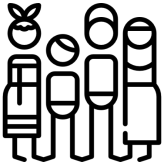
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Clinical study

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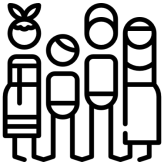
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Induced abortion	84	<b>23.3</b>	19.2-28.0	164	<b>45.3</b>	40.1-50.6	602	19.5	18.1-20.9
	N=83 (1 missing)			N=156 (8 missing)					
Safe	2	<b>2.4</b>	0.3-8.4	32	<b>20.5</b>	14.5-27.7			
Unsafe	81	<b>97.6</b>	91.6-99.7	124	<b>79.5</b>	72.3-85.5			
	N=520			N=548			N=13657**		
Septic abortions	97	<b>18.7</b>	15.4-22.3	148	<b>27.0</b>	53.6-62.0	974	7.1	6.7-7.6

\* Qureshi et al. WHO-MCS-A. *BMJ Glob Health* 2021; 6:e003702

\*\*Baguiya et al. *IJGO* 2022;

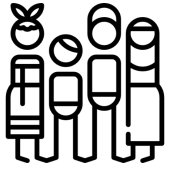
10.1002/ijgo.14032

# Results : Reported induced abortion



# Results : Reported induced abortion

**Qualitative study**



# Results : Reported induced abortion

## Qualitative study

### In CAR:

- 2/3 participants reported induced abortion

# Results : Reported induced abortion



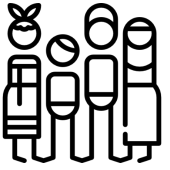
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## Qualitative study

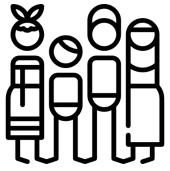
### In CAR:

- **2/3 participants reported induced abortion**
- Methods were multiple, often mixed, and could be used in succession, including:
  - **Unsafe instrumental evacuations** referred to as “Curettage”
  - **Self-administered decoctions of traditional ingredients** such as herbs, roots, or vegetables, ingested either alone or in combination **with pharmaceutical drugs**, at times with instrumental methods.





# Results : Reported induced abortion



## Qualitative study

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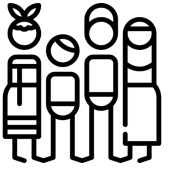
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### In Nigeria:

- **None** of the participants reported having induced their abortion
  - **Lack of knowledge and stigma of induced abortion**

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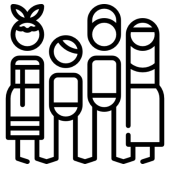


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### In Nigeria:

- **None** of the participants reported having induced their abortion
  - **Lack of knowledge and stigma of induced abortion**
- However, many reported **use of traditional substances**, to “support” the pregnancy or to treat symptoms such as bleeding, including
  - **Rubutu**, with vegetables, seeds, coran ink and charcoal
  - **Jiko**, unknown herbal ingredients
  - **Potash**, a food additive
- **Bleeding often started after** their consumption



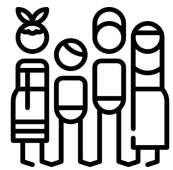
# Results : High risk of anemia



Clinical study

	Nigeria			CAR		
	n/N	%	95%CI	n/N	%	95%CI
Anemia	424/517	<b>82.0</b>	78.4-85.2	219/513	<b>42.7</b>	38.4-47.1
Anemia in women with no severe bleeding	96/144	<b>66.7</b>	58.3-74.3	79/210	<b>37.6</b>	31.0-44.5

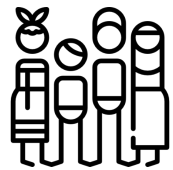
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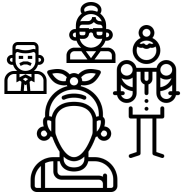


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# Results : Staff attitude to abortion care

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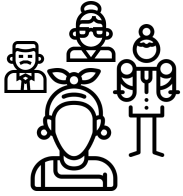


**KAPB survey**

**ATTITUDE TO SAFE ABORTION CARE**



# Results : Staff attitude to abortion care

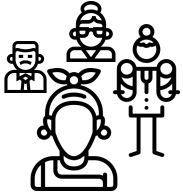


KAPB survey

## ATTITUDE TO SAFE ABORTION CARE

- **Nigeria: 74%**

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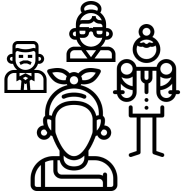


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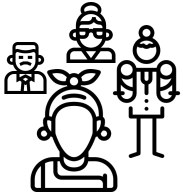
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KAPB survey



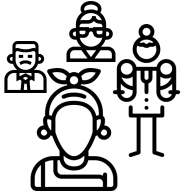
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Qualitative study

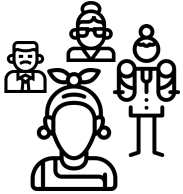
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# Results : Staff attitude to abortion care



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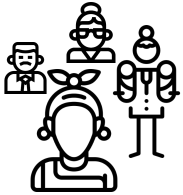


Qualitative study

In **both sites**:

- Quality of care at MSF recognized to be of **quality**

# Results : Staff attitude to abortion care



## KAPB survey

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## Qualitative study

### In both sites:

- Quality of care at MSF recognized to be of **quality**
- **No or low report of stigmatization**
  - **In CAR**, few reports of stigmatizing attitudes from health care providers

# Conclusion



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- High proportion of chronic underlying anemia especially in Nigeria

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- Great delays to access post-abortion care.
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⇒unsafe abortion

- High proportion of chronic underlying anemia especially in Nigeria

⇒**Need greater access to comprehensive abortion care (contraception, safe abortion care, and post-abortion care) to prevent severe abortion complications and deaths in these fragile & conflict-affected settings.**

# MANY THANKS TO

## Country stakeholders

### Patients

Communities of Bangui, Jigawa State and Masisi  
CAR, Nigeria and DRC Ministries of Health  
Médecins Sans Frontières CAR, Nigeria and DRC

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## Publications:

- <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-023-05427-6>
- <https://epicentre.msf.org/en/our-projects/abortion-complications>

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