THE NIGERIA 2019 VERBAL AND SOCIAL AUTOPSY STUDY OF UNDER-FIVE MORTALITY: STAKEHOLDER ENGAGEMENT, KEY FINDINGS AND RECOMMENDATIONS FOR ACTION

WEBINAR, FEBRUARY 10, 2021
APPRECIATION

- USAID
- National Population Commission
- Federal Ministry of Health
- VASA sub-technical committee
- Field researchers
- Study participants – caregivers, healthcare workers, community members
BACKGROUND
NIGERIA MORTALITY RATES

Trends in early childhood mortality rates

Deaths per 1,000 live births in the 5-year period before the survey.

Figure is from NDHS 2018
DEATH RATES IN CHILDREN BY ZONE

Neonatal, 1-11 months and 1-4 years mortality by the six geopolitical zones – NDHS 2018
WHAT IS VERBAL AND SOCIAL AUTOPSY (VASA)?

Verbal Autopsies

▪ ask caregivers about the symptoms around the time of death and use various methods to assign probable causes of death.

Social Autopsies

▪ ask the same caregivers about the sequence of care for the child before death and about various factors that may have contributed to the death.

Qualitative component

▪ added to the 2019 VASA to provide more in-depth understanding of social and contextual factors related to child deaths.
OBJECTIVES OF THE 2019 VASA

The objectives of the 2019 VASA were to provide National and Zonal level:

- estimates of the major causes of under-five mortality in Nigeria in the 2013-2018 period.
- data on patterns of care-seeking, social factors, and interventions related to deaths in children under-five, along with qualitative narratives of factors associated with these patterns.
- analysis and insights into the causes and social determinants of death among children to enable policy makers to make evidence-based decisions and to inform programmes to best improve health outcomes among under-five children.
STAKEHOLDER ENGAGEMENT PROCESS
ENGAGING THE STAKEHOLDER ENGAGEMENT FACILITATOR

Based on past experience, it was deemed critical to first identify a Nigerian leader to facilitate the stakeholder engagement process.

The facilitator had a clearly defined Scope of Work:

To drive the process of engaging relevant stakeholders on child health in Nigeria with the primary objective of achieving stakeholder’s acceptance of the outcome of the 2019 VASA
DEVELOPMENT OF STAKEHOLDER ENGAGEMENT STRATEGY

The second step was to identify the best way local stakeholders could be part of the 2019 VASA that would lead to ownership – **The Stakeholder Engagement Strategy**

1. Identify and prioritize stakeholders
2. Identify key stakeholders to constitute the 2019 VASA technical sub-committee
3. Determine activities to engage the stakeholders

Identifying and prioritizing the stakeholders - *emphasis was placed on*:

- how important the stakeholder would be to the successful implementation of the 2019 VASA
- the stakeholders who would be impacted by the outcome of the study
- and stakeholders who could influence uptake of the results of the study
DEVELOPMENT OF STAKEHOLDER ENGAGEMENT STRATEGY

Activities carried out to identify the stakeholders:

1. Desk review

2. Advocacy/outreach visits:
   - conducted for individual organizations/groups
   - the facilitator made presentations on the planned 2019 VASA
   - invited the relevant stakeholders to be part of the 2019 VASA technical sub-committee
   - contacted the individual/group through phone calls/email to present the planned 2019 VASA
DEVELOPMENT OF STAKEHOLDER ENGAGEMENT STRATEGY

Identifying key stakeholders to constitute the 2019 VASA technical sub-committee.

The 2019 VASA technical sub-committee was vested with the responsibility of overseeing the entire process – from the planning to result dissemination.

The stakeholders to constitute the sub-committee were:

- considered necessary for implementation of the activities
- could provide technical input to the protocol and tools, as well as the training and fieldwork plans
- had experience with surveys and data collection
- would contribute maximally to planning the dissemination and research utilization activities after the survey
- represented different sectors – e.g. government, researchers, programmers, and donors
SUB-TECHNICAL COMMITTEE MEMBERS

Family Health Department, FMoH  
National Malaria Elimination Prog., FMoH  
Child Health Division, FMoH  
Planning, Research & Statistics Department  
NPHCDA  
National Population Commission  
National Bureau of Statistics  
Federal Ministry of Women Affairs  
Paediatrics Assoc. of Nigeria  
Nigeria Society of Neonatal Medicine

Obafemi Awolowo University  
Ahmadu Bello University  
University of Jos  
University of Maiduguri  
University of Port Harcourt  
WHO, Nigeria Country office  
USAID, Nigeria Country office  
Coordinating Implementation Research to Communicate Learning and Evidence (CIRCLE)
Stakeholders not prioritized to membership of the technical sub-committee was constituted into an ‘EXTENDED 2019 VASA TECHNICAL SUB-COMMITTEE’

These stakeholders received briefing regularly through emails:

- Activities of the 2019 VASA
- Progress of 2019 VASA

Sometimes the 2019 VASA technical sub-committee received input from the extended sub-committee.
ACTIVITIES OF THE 2019 VASA TECHNICAL SUB-COMMITTEE

• Held technical sub-committee meetings
• Attended training of trainers workshop and participated in all training activities
• Attended training of data collectors workshop and participated in all training activities
• Lead or participated in the field activities for data collection
• Attended data analysis workshop
• Participated in extensive report writing review process
• Planned and participated in the result disseminations at all levels
• Outreach to technical working groups
VASA SURVEY DESIGN AND KEY FINDINGS
SAMPLE SIZE AND SURVEY COMPLETION

Identified from 2018 NDHS = 4,096

Did not agree to revisit = 103 (2.5%)
Agree to revisit = 3,993 (97.5%)

Removed so no more than one per household = 778 (19.0%)

Final survey sample = 3,215 (78.5%)

Unable to survey = 140 (4.4%)
Completed survey = 3,075 (95.6%)

194 = Stillbirth (6.3%)
754 = Neonates (24.5%)
676 = 1-11 months old (22.0%)
1,451 = 1-4 years old (47.2%)
### VASA SURVEY COMPONENT

The survey instrument consisted of 15 modules covering verbal and social autopsy topics

<table>
<thead>
<tr>
<th>Modules for all deaths</th>
<th>Modules specific for neonatal deaths</th>
<th>Modules specific for 1-59 month old deaths</th>
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</thead>
<tbody>
<tr>
<td>- General information for all deaths</td>
<td>- Validation of neonatal death versus stillbirth status</td>
<td>- Health history for 1-59 month old children</td>
</tr>
<tr>
<td>- History of injuries/accidents for all deaths</td>
<td>- Health history for neonates</td>
<td>- Medical history for 1-59 month old children</td>
</tr>
<tr>
<td>- Care-seeking during the fatal illness for neonates and child deaths</td>
<td>- Signs and symptoms for neonates</td>
<td>- Signs and symptoms for 1-59 month old children</td>
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<tr>
<td>- Medical records and mother’s HIV status</td>
<td>- Pregnancy, labour and delivery history for neonates and stillbirths</td>
<td>- Routine care for 1-59 month old children</td>
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<tr>
<td>- Social capital</td>
<td>- Newborn routine care</td>
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VERBAL AUTOPSY METHODS USED FOR QUANTITATIVE ANALYSIS

PCVA (Physician coding verbal autopsy)

Two in-country physicians used a standard WHO set of diagnostic criteria to separately ascribe the cause of death (primary, underlying and contributing) for each case. They then compared notes and reached a consensus on the primary cause of death. A third, independent pediatrician further reviewed the submission to ensure the minimum criteria with clinical acumen were used.

EAVA (Expert Algorithm Verbal Autopsy)

Computerized coding of a set of causes of death was based on answers to survey questions in line with ICD 10 principles. Causes with the clearest symptoms are placed high in the hierarchy. Once a death meets the criteria for one diagnosis, those further down the hierarchy are not considered. Diagnoses not on the list are not included and deaths not meeting any criteria are “unspecified”.

MAIN NEONATAL CAUSES OF DEATH

Physician-coded and Expert algorithm verbal autopsy for causes of 722 neonatal (0-27 days) deaths in Nigeria, 2013-2018 (weighted data)

**Physician-coded VA – Neonatal**
- Unspecified: 13%
- Sepsis: 23%
- Pneumonia: 15%
- Jaundice: 10%
- Intrapartum injury: 18%
- Meningitis: 6%
- Preterm: 9%
- Diarrhoea: 1%
- Congenital: 1%
- Injury: 0.2%
- Other: 4%
- Neonatal tetanus: 0.2%

**Expert algorithm VA – Neonatal**
- Unspecified: 18%
- Sepsis: 30%
- Pneumonia: 12%
- Jaundice: 1%
- Intrapartum injury: 27%
- Meningitis: 2%
- Preterm: 1%
- Diarrhoea: 2%
- Congenital: 3%
- Injury: 1%
- Other: 3%
- Neonatal tetanus: 0.3%
MAIN CAUSES OF CHILD DEATH 1-59 MONTHS


Physician-coded VA – 1-59 months child

- Malaria: 22%
- Diarrhoea: 17%
- Other infection: 13%
- Meningitis: 10%
- Pneumonia: 10%
- Dysentery: 5%
- Other: 10%
- AIDS: 1%
- Malnutrition: 2%
- Pertussis: 2%
- Measles: 3%
- Injury: 2%
- Unspecified: 3%

Expert algorithm VA – 1-59 months child

- Malaria: 35%
- Diarrhoea: 24%
- Pneumonia: 12%
- Other infection: 1%
- Meningitis: 4%
- Dysentery: 4%
- Other: 1%
- AIDS: 2%
- Malnutrition: 3%
- Pertussis: 0.5%
- Measles: 4%
- Injury: 2%
- Unspecified: 8%
PREGNANCY OR LABOUR AND DELIVERY COMPLICATION RATES BY AGE AT DEATH GROUP

Nigeria 2019 Verbal and Social Autopsy Study
In all age of death groups the rate of complications is higher for women who delivered in a health facility.
FACILITY VERSUS HOME BIRTHS AND NEONATAL MORTALITY (NDHS 2018)

Neonatal mortality rates for facility births are/could be higher than home births because many women with complications go to facilities for delivery. Zones that have the lowest overall facility delivery rate may have the highest rate of high-risk deliveries in facility.
WHERE NIGERIAN CHILDREN DIE

Half of families with a neonatal death reported they did not seek health care.

In birth facility (before discharge)

At home – no care sought or given

At home – only informal care given

On way to a health provider

At a health provider

At home after seeing health provider

Unlike neonates, 88% of families with a child who died at 1-59 months sought health care from informal or formal sources.

Neonates (n = 754)

- 21% In birth facility
- 13% At home – no care sought or given
- 5% At home – only informal care given
- 2% On way to a health provider
- 9% At a health provider
- 50% At home after seeing health provider

Child (1-59 months) (n = 2,127)

- 42% In birth facility
- 12% At home – no care sought or given
- 18% At home – only informal care given
- 5% On way to a health provider
- 23% At a health provider
- 2% At home after seeing health provider
LENGTH OF FINAL ILLNESS

68% of neonatal deaths occur on the day of or day after the illness started so interventions would need to be very fast to be effective.

Only 15% of final illnesses in children 1-59 months were less than two days in length, but half died within one week. There was usually time to seek effective treatment.
DISTANCE TO CARE

Informal providers such as drug shops (PMVs or pharmacies) are highly accessible to most families in the VASA. Formal providers, especially hospitals, require more transport time and motorized transport to access.
DISCONTINUITY OF FORMAL CARE
AFTER CHILD LEFT THE FIRST HEALTH PROVIDER (N=1,068)

- Received a referral to another provider
- No referral but received home care instructions
- No referral and no instructions

Discontinuity of Care

- 69%
- 19%
- 12%
QUALITATIVE COMPONENT AND KEY FINDINGS
QUALITATIVE COMPONENT

Qualitative data gathering was done in 12 states in all six geopolitical zones, choosing the highest mortality areas.

- **69** In-depth Interviews
- **24** Key informant interviews
- **12** Observations
- **48** Focus group discussions

- Caregivers
- Healthcare providers
- Health facilities
- Community members

12 states (zones): Niger and Plateau (North Central); Bauchi and Gombe (North East); Jigawa and Kebbi (North West); Ebonyi and Imo (South East); Akwa-Ibom and Rivers (South South); and Ekiti and Osun (South West)
SICKNESSES DEFY ORTHODOX MEDICINE

Belief that only traditional medicine can cure some diseases keeps caregivers from formal care.

Widespread, but very common in the South East and North West

‘…well, we started with the traditional medicines at home first. When we noticed there was no progress, then we went to the hospital.’

There is a sickness that is common among children and even the adult which is fatal within a short period if measures are not taken immediately. This is called daji, it is spiritual. Patients with this kind of sickness can be taken to the hospital but cannot take injection of any kind and if injected, it will lead to sudden death’. 

Female community member

Caregiver
FATALISM

Resignation to fate (because health outcomes are believed to be predetermined and care cannot change the outcome) keeps caregivers from seeking formal care.

Widespread, but even more common in the North West, North East and South West

‘In my thinking, things that concern children, it is the will of God. Even if you get medicine and God has destined that the child’s life has ended, it will end. Even if you take an action and it’s the child’s time, there is nothing you can do about it’.

Caregiver
SPIRITUAL CAUSATION

‘Spiritual attacks’ require spiritual solutions so caregivers may not seek formal care when they suspect spiritual attack.

Common in the South South and South East.

Yes I believe the deaths of my babies are linked to spiritual attack because any time I give birth to my baby, it does not take time before they die’
SYNCRETIC HEALTH BELIEF

Belief that a combination of traditional and orthodox care give the best result leads to delay in seeking care.

South East

You must start the treatment with traditional medicine … the traditional medicine will “bring out” all the sicknesses in the person’s body, then you will use the English medicine to treat all the sicknesses’
POVERTY AND POOR INFRASTRUCTURE

Sometimes, caregivers cannot afford cost of care and cost of transportation.

*We do not have the money to treat them. We are in lack and my husband does not have money and it truly troubles me. With no money, you cannot get the kind of treatment you desire. When you go there you are not even noticed without money*.  

‘*We normally have to travel to XXX [for treatment], about N500 as cost of transportation only, not to talk about cost of drugs and other services*.’
SOCIO-CULTURAL CONTEXT

Seclusion of women limits access to care.

A major factor in the North West, North East and North Central.

‘Some women will not feel like going to the health facility, or their spouse will not give them the permission to go because they do not want male health workers to examine or touch their wives…."

… some women don’t want to come out, they are in purdah and even if they want to come out, the father of the child will not allow them.

Male Healthcare provider

Caregiver

Nigeria 2019 Verbal and Social Autopsy Study
HEALTH FACILITY: DRUGS & EQUIPMENT & ATTITUDE OF SERVICE PROVIDERS

Caregivers are discouraged from using health facilities because:

- There are no facilities in some communities
- Some facilities are poorly equipped
- Some healthcare providers have poor attitudes towards caregivers

‘Yes, tests are very important but, we don’t have that [diagnostic] equipment here…. If they will build a maternity clinic here, and provide that equipment, I believe the problems will be very minimal.’

‘The healthcare centre is not fully functional to address our health challenges. The facility is just a name. It lacks adequate drugs, equipment, and even staff availability is not guaranteed. They usually come twice a week and nothing serious in terms of adequacy of services, drugs, and equipment is coming from them, unless you travel to another community.’

‘Well, I can say they have bad attitude in dealing with people. They normally shout and abuse people with their evil or vulgar language. They also take so much time before attending to us … That is why many don’t want to go there and prefer traditional medication.’
INSECURITY

Insecurity reduces access to care:

1. Keeps caregivers from accessing facilities
2. Keeps healthcare providers from going to facilities
3. Reduces household income

‘... for now we are not taking delivery (at night) since we are not residing here, and the reason we are not residing here is because the security issues in this community have been compromised [crime] (kidnapping, armed robbery, and other social vices) is the order of the day ... and so ... we cannot reside here because we are not sure of our safely.’

Female Healthcare provider
ENABLING FACTORS

These include: Immunisation programme and sensitization campaigns, UN agencies and other international and local organizations.

‘Sometimes UNICEF does assist our children. ANC is also sponsored by NGOs like Bill and Melinda Gates Foundation in support of our healthcare system’.

…the major programme that the government has introduced to reduce under-five deaths in our community is the immunisation and sensitisation health seminar programme to enlighten our women on the importance of bringing their children for immunisation and how to properly take care of their children to reduce incidence of child death’.
CONCLUSIONS AND RECOMMENDATIONS FOR ACTION
CONCLUSION

Nigeria’s slow progress in child survival has left it behind other countries.

The causes of death and reasons behind these causes are clear for Nigeria in the VASA 2019 study.

It is up to Nigeria’s leaders to take action to accelerate Nigeria’s development as a society.

It is up to Nigeria’s health authorities to strengthen Nigeria’s primary health care system so that children no longer die from preventable causes.

It is up to Nigeria’s people to adopt health promoting practices and move away from beliefs and practices with negative implications for child survival.
POLICY IMPLICATIONS
HOME, COMMUNITY AND PREVENTIVE ISSUES

Home and community
- Achieve universal basic education - especially for girls
- Improve economic opportunities for poor families
- Improve local infrastructure - including water, sanitation and roads

Home newborn care and nutrition
- Avoid common harmful practices, such as late breastfeeding and early bathing and improve home feeding behaviors

High priority routine and preventive services
- Universal access to high quality antenatal and labour/delivery care
- High coverage of routine immunizations, micronutrient (Vitamin A), malaria prevention (LLIN), etc.
POLICY IMPLICATIONS
COMMUNITY AND FACILITY ILLNESS MANAGEMENT

Community level

- iCCM allows community management of common diseases
- Community management of young infants with signs of possible severe bacterial infection when referral is not possible.
- Community Management of Acute Malnutrition (CMAM)
- Improve care at pharmacies/PMVs (to at least iCCM level)

Health facility level

- Reduce barriers to accessing health care
  - High and unpredictable costs (truly free care, insurance schemes)
  - Functional Primary Health Care centers with 24 hour service
- Improve clinical practices (IMCI, LSS, ENC, HBB, MPSBI, etc.)
- Improve severe/complicated case management and referral for both mothers and children
POLICY IMPLICATIONS

CONTEXTUAL BARRIERS TO HEALTH CARE

Address health beliefs

▪ Improve knowledge and correct misconceptions about child health care. Need innovative context-specific interventions
▪ Legal frameworks for protecting children from harmful practices

Access to health services

▪ Primary health care needs enough investment and staffing
▪ Staff need to provide respectful client friendly care
▪ Health care workers need better support and security

Social-cultural barriers

▪ Secure women’s rights and ability to access health services when needed
▪ Improve the security situation
THANK YOU

The 2019 VASA products are available on:
1) USAID’s Health Research Program website: harpnet.org
2) National Population Commission website: national population.gov.ng