Information Systems Design and Implementation in Maternal Health Care

A Case Study of Enuwa Primary Health Care Center

By

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Outline

• Introduction
• Organization and environment
• Target population
• Services and activities
• Challenges and Recommendations
Introduction

• Enuwa Primary Health Care is a primary health care located in Ife Central Local Government, Ile-Ife, Osun-State, Nigeria

• It is one of the 30 local governments in Osun-State.
Introduction cont’d

- It is an index primary health care center in the local government comprising of eleven wards and all health centers in this local government report to the index health care center
Introduction cont’d

• The population of women of reproductive age group is 43,072 (22% of the total population), Pregnant women were estimated to be 9,790 (5% of total population).
Introduction cont’d

• Maternal mortality ratio for the entire country Nigeria is given as 0.8/100 life birth. The maternal mortality rate for the local government was given to be 3 percent of the women that access the facility.
Introduction cont’d

• The facility enjoys huge patronage from the community considering the population of pregnant women in attendance on their clinic days, Mondays: the antenatal clinic is run weekly because the health facility is relatively cheaper.
Case: Nigeria, Ile-Ife, Enuwa

Legend

- Society, social formation
- Institution, formal organization

Korpela et al. (2008): Depicting the landscape...
Flows of services between organizations, activities and stakeholders

Case: Nigeria, Ile-Ife, Enuwa

Health Care Services
- Antenatal Care (ANC)
- Delivery
- Postnatal care
- Family planning

Enuwa Primary Health Centre

Public Sector Flows of services between organizations, activities and stakeholders

Legend
- Society, social formation
- Institution, formal organization
- Activities (actors + processes)
- Individual
- Need-service relations

Services

Clinics

Enuwa Community

Needs Services

Out-of-Pocket Payment

Pharmacy

Private Clinic

Laboratory Services

Referral System

Pharmacy

Labour Ward

Traditional Healers, Prayer Houses
Flows of authority

Legend:
- Society, social formation
- Institution, formal organization
- Activity
- Individual
- Need/service relationship
- Flow of power

Nigeria

President
Govt

Senate
Laws

House of Rep
Laws

Minister of Health

Osun State

Governor
Govt

State Assembly

Ife-Central Local Government Area
Comm. Of H.LGA Chairman

Priv. Clinic
Care

Elections

Public healthcare

Private healthcare

Citizens

Minister of Health
Govt

Ife

LGA Chairman

Osun State

Laws

Senate

House of Rep

President

Governor

State Assembly

Ife-Central Local Government Area

Comm. Of H.LGA Chairman

PHC

Clinic

Enuwa Square

Ward

Council

Cttee

Govt

Nigeria
Flows of money

Case: Nigeria, Ile-Ife, Enuwa

Legend:
- Society, social formation
- Institution, formal organization
- Individual
- Flow of funds

Government

Enuwa Square

Public healthcare providers

Private healthcare providers

Subsidies

Payments (in full or difference)

Injury Citizen
Methodology

- 30 women of reproductive age group were interviewed
- They were selected by convenient sampling technique
Findings

Accessment of Facilities for Delivery

- Women that Use Enuwa PHC only: 70%
- Delivered at Home: 3%
- Delivered at a FBO: 17%
- Both Enuwa PHC & Others: 10%

Legend:
- Women that Use Enuwa PHC only
- Delivered at Home
- Delivered at a FBO
- Both Enuwa PHC & Others
Findings cont’d

Awareness of Information about Maternal Health Needs & Care

- 27, 90%
- 3, 10%
- 0%, 0%

Awareness of Information about Maternal Health Needs & Care
- No Awareness
Perceived Needs?

- **Improved Discipline in the facility**
  - attitudinal disposition of the health workers to afford better relationship between community members and the facility workers.

- **Enhanced supply of drugs**
  - Some of the people interviewed pointed to the need for availability of more drugs.

- **Employment of more health personnel**
  - Increased number of staff who are experienced and skilled specifically in maternal health care in the facility

- **Improved Infrastructural Facilities**
Identified Problems (Real Need)

- Poverty
- Lack of portable water supply,
- poor personal hygiene and environmental sanitation,
- Illiteracy (school dropouts)
- Early marriage
- Shortage of training and equipment for this primary health center
Flow of Health Information

• The first place of contact in the health facility is the records unit where each client is allocated a number.
• Data captured include Name, Age, Sex, Address, Occupation, and phone number.
• Form 001, 002 and 003 are used to capture data.
Flow of Health Information

• **Tracer card** is issued to each client. A serial number is allocated to each client as their name is put in the register for the records unit.
Flow of Health Information

- **Index card** is filled for each client and arranged alphabetically in a box. This card is used in tracing the clients’ case note in case they forget or misplaced their tracer card. The tracer card is kept by the client and the index card is kept in the unit.
Flow of Health Information

- **Case note** Currently they have 12,970 case note which is the record for the last three years. All previous records from 1958 when the center was established up to 2008 (3 years ago) have been destroyed for reasons of space.
Flow of Health Information

• Form 001 captures all records for each day, and this is done at different desks by different officers. This form is also used by eleven other health facilities in the eleven wards making up the local government and forwarded to the Enuwa primary health care center from where it is forwarded together with all the data generated in Enuwa to the Local Government on monthly basis.
**Flow of Health Information**

- Form 002: All the data from form 001 is entered into form 002 by the monitoring and evaluation officer of the local government. The form is subsequently submitted to the state on quarterly basis or at any other time it is demanded.

- The state also enters the data from form 002 into form 003 and get it submitted to the Federal ministry of health where form 004 is used. The information technology used at this center is still the manual method, that is, the use of forms and written notes.
Challenges

• Establishing safe and supportive environment by engaging individuals, families and communities
• Developing a system that is sustainable within the existing situation
• Education policies on training standards and numbers of trainers needed and integration between health services and health profession education
• Health information system, including information to communities, users of services, service planners and managers and a health registration system (including near misses and deaths)
• Reconstruction of deteriorating infrastructure and improving the functioning of health system that integrates all levels of services, all providers and all communities
• Links between the health services and social and welfare services
Challenges Contd.

• Partnerships between various actors at various levels of the health system
• Monitoring and evaluation for overall performance as well as client satisfaction
• Addressing the negative impact of poverty on accessibility to quality health care
• Improving the coordination between the public sector and the increasingly significant private sector and establishing effective systems for monitoring and auditing clinical
Recommendations

• Improve quality of services for newborn and infants.
• Strengthen health information system
• Promotion of health life styles
• Improve adolescent health
• Clean and safe delivery for all by skilled birth attendants
• Improve family planning services
• Health nutrition programs for women and children
• Promotion and support of breast feeding for children
• Strengthening programs for early detection of Breast and cervical cancer
Conclusion

• there is room for improvement by the government, the health workers and the community members accessing the facility in order to develop a formidable health information system.