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Evaluation of Open Defecation Practices toward Achieving the Millennium Development Goals In Gwiwa Local Government Area, Jigawa State. Nigeria

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Abstract

The absence of efficient and functional toilet facilities in both rural and urban areas remains an unmentionable and shameful phenomenon for both the affluent and the poor Nigeria. This has led communities to rely on the use of free open areas to defecate with the consequent high cases of people taking ill and dying of Cholera and Diarrhoea. The paper examine the places where the communities in the Gwiwa Local Government Area defecate and dispose their faeces; the suitability of the latrine(s) used by the communities; and evaluates the impact of the Millennium Development Goals on open defecation and sanitation in the Area. A structured questionnaire was administered to 150 respondents randomly in the 15 selected communities' out of the total 28 communities in the study area. The analysis was based on tables, mean, frequency and percentages. The paper reveals that majority of the people practice open defecation in the bush, and others used backyard to defecate and deposit their children's faeces, Majority of the respondents in the communities use hand dug latrines with cross sticks, few with slabs, some without covers. The respondents testified the frequent occurrence of typhoid, diarrhoea and cholera among children. The paper recommends that Government should facilitate the provision of physical sanitation facilities such as public toilets, household toilets with septic tanks and Sockaways to the communities. A conscious effort should be made to involve women in the campaign to end open defecation, enlighten, guide and give the people technical support on how to construct their own pit latrines, especially the improved ventilated type.

Keywords: Open defecation, Faeces, Sanitation. Disease and Communities

Background to the Study

Over 780 million people in the world, especially in the developing countries lack access to toilet facilities and latrines (World Health Organization, 2012),. The study of Gil and Icleinau, (2004) estimated the number of people who rely on free open defecation to be 1.8 billion, or about 28% of the global population. According to WHO / UNICEF JMP, 'improved' water latrines are likely to be free from contaminate pathogenic microbes. Recent research has shown, however, that even such improved water system latrines may be subject to fecal contamination (ibid.) and that even occasional exposure to unsafe water for example, from intermittent service or inadequate treatment can undermine health benefits. According to Humphries (2000), providing safe, reliable, piped-in water latrine to every household is an essential goal, yielding optimal health

gains, while contributing to the Millennium Development Goals (MDGs) targets for poverty reduction, nutrition, childhood survival, school attendance, gender equity and environmental sustainability.

Nigeria is one of the top five global countries with the highest number of people who defecate openly (Onche 2012). Outbreaks of various kinds of communicable diseases in Nigeria have been linked to compromised water quality, poor sanitation and hygiene as direct consequences of open defecation. A statement by the United Nations Children Fund (UNICEF) released to coincide with the World Toilet Day shows that lack of toilet remains one of the leading causes of illness and death among children.

According to the report of UNICEF and World Health Organization (2012), it is estimated that 34 million Nigerians practice open defecation. This has ensured that Nigeria is amongst top 5 countries in the world with the largest number of people defecating in the open. This tally with figures released by the organization in Nigeria, which estimates that diarrhea kills about 194,000 children less than five years every year. According to the United Nations Children's Fund, over 100 million people in Nigeria do not have access to improved toilet facilities, out of which over 45 million defecate in the open. This highlights the great danger that lack of toilets poses to public health and general well-being as evidenced during the recent cholera outbreak in several parts of the country.

Human excreta can contain over 50 known bacterial, viral, protozoan and helminthes pathogens. The majority of the excreta-related infections are obtained through ingestion, less often through inhalation. The excreta-related infections travel through a variety of routes from one host to the next, either as a result of direct transmission through contaminated hands, or indirect transmission via contamination of drinking water, soil, utensils, food and flies.

Globally, UNICEF is supporting 50 countries including Nigeria to implement Community Approaches According to a WaterAid report, the consequences of open defecation are many, it pollutes underground water sources, contaminates agricultural produce, diseases such as cholera, diarrhea and bilharzias. According to a recent UNICEF report in Nigeria over 200,000 children under the age of ten die due to diarrhoea, while the numbers for cholera within the region are also high.

Recent surveys by organizations like WaterAid, UNICEF, Community led total sanitation (CLTS), have revealed intriguing figures with respect to the problem of open defecation. A recent UNICEF report says that 33million Nigerians still defecate in the open. According to UNICEF's country representative, Dr. Suomo Sakai, the unwholesome practice leads to the depositing of about 1.7 million tonnes of faeces into the environment annually. In Ghana, about 5 million of the total population of 24 million defecates in the open. These statistics from 2 of West Africa most populous countries paints a general picture for the region with respect to this problem. While lack of sufficient infrastructure is a contributory factor to the problem with the failure of governments to effectively address the lack of necessary infrastructure in rural and urban settlements. Behavioural attitudes across societies also play a major part in this menace.

Concepts of hygiene, cleanliness, purity, and beliefs about sanitation and disease are deeply ingrained through religious and cultural beliefs. There are also many different traditional beliefs with respect to disease causation, including spiritual concepts. Even when people are able to associate excreta with the spread of disease, faeces of small children are often considered harmless even though it contaminates water supply and the food chain1. Excreting in polyethene bags gutters and in backyards is a common feature in most urban centres across West Africa.

Recent interventions by organisations like UNICEF, CLTS are beginning to show positive signs with steady improvements in the use of toilet facilities, worldwide the practice is said to have dropped to 28% in 2008, in the urban centers though the rates have remained steady at 5% during the same period according to a WHO / UNICEF report, during same period 76% of the urban population has access to improved sanitation facilities compared to 45% in the rural areas2. The danger though is that increasing population within the especially the city centers from increased birth rates and the rural-urban drift are continuously posing a challenge to the attainment of MDG's set figures as 2015 approaches.

The 2010 MDGS points out the fact that at current levels of progress the world will miss out on achieving the target set for 2015. In light of the ever increasing population rates it means that rural areas and especially urban centres are more than ever facing threats of disease due to lack of access to basic sanitation facilities especially toilets. Governments in West Africa would have to increase in double folds investments in the area of According to a WaterAid report, the consequences of open defecation are many, it pollutes underground water sources, contaminates agricultural produce, diseases such as cholera, diarrhea and bilharzias. According to a recent UNICEF report in Nigeria over 200,000 children under the age of die due to diarrhoea, while the numbers for cholera within the region are also high.

In Nigeria, UNICEF in partnership with relevant government Ministries, Departments and Agencies, as well as donors such as European Union and UK Aid is supporting the implementation of Community Led Total Sanitation in 30 States, and over 2million people living in more than 3,000 open defecation free communities are estimated to be using toilets as a result. With continuous support from governments and other partners in scaling up this approach, more Nigerians will live in open defecation free communities.

Literature Review

Factors that Promote Open Defecation

Open-field defecation and the failure to confine excreta safely are primary factors that contribute to the spread of disease through the fecal-oral transmission of pathogens. Improved hygiene practices by communities, including the use of sanitary toilets, can effectively break this cycle of disease transmission and reduce the disease burden by as much as 50 percent. (WSP Mission, 2007)

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sufficient infrastructure is a contributory factor to the problem with the failure of governments to effectively address the lack of necessary infrastructure in rural and urban settlements. Behavioural attitudes across societies also play a major part in this menace. Concepts of hygiene, cleanliness, purity, and beliefs about sanitation and disease are deeply ingrained through religious and cultural beliefs (Kamal Kar and Robert Chambers,(2008). There are also many different traditional beliefs with respect to disease causation, including spiritual concepts. Even when people are able to associate excreta with the spread of disease, faeces of small children are often considered harmless even though it contaminates water supply and the food chain1. Excreting in polyethene bags gutters and in backyards is a common feature in most urban centres across West Africa.

Effects of Open Defecation

According to a Water Aid report, the consequences of open defecation are many, it pollutes underground water sources, contaminates agricultural produce, diseases such as cholera, diarrhea and bilharzias. According to a recent UNICEF report in Nigeria over 200,000 children under the age of die due to diarrhoea, while the numbers for cholera within the region are also high.

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Effective Strategy for Total Defecation

Community-Led Total Sanitation (CLTS) is an innovative approach for mobilizing communities to build their own toilets and stop open defecation. According to World Health Organization, (2012), the programme first started in Bangladesh in 2000 it has now spread across Asia, Africa, Latin America and the Middle East.

In the report of theWorld Health Organization, (2012), that In the past, money invested in toilet programmes was wasted as people continued to defecate in the open, encouraging the spread of disease. By contrast, CLTS avoids upfront hardware subsidies and creates self-awareness about waste produced, through facilitation. As the articles in this publication, by Kamal Kar with

Robert Chambers, Peter Harvey and Leonard Mushoka highlight, the process evokes powerful emotions and often leads to immediate action: people dig and build their own toilets and, more importantly, start using them and thus stop open defecation. Changes can take place in a few weeks, with dramatic effect on human wellbeing. CLTS is a success story, not least due to its potential for contributing towards several Millennium Development Goals. But unanswered questions remain: How sustainable is local toilet use and the changes in people's behaviour? Are the supporting institutional arrangements sustainable? Does the 'no subsidy' policy exclude poor people?

The Katsina State Rural Water Supply and Sanitation Agency (RUWASSA) has launched a project for the actualization of 100 percent sanitation, water and hygiene toilets coverage in three selected local government areas of the state by the year 2014. The project, funded by the United Kingdom's department for international development (DFID) under the sanitation, water and hygiene in Nigeria (SHAWN) is to focus on communities in Bakori, Kaita and Mai'adua local government areas of the state.

The observation of open defecation in Gwiwa Local Government Area and its attendant health consequences, has posed the following questions: how committed are the Federal, State and the local Government to Millennium Development Goals?. What stage has the Millennium Development Goals in Nigeria reached?. Shall we achieve the said goals by 2015?.

Problem of the Study

A multi-stakeholder report jointly published by the Africa Council of Ministries in (2012) has confirmed that Nigeria and 49 African countries will not achieve the Millennium Development Goal for sanitation. The report further stated that only four Sub-Saharan African countries namely: Rwanda, South Africa, Angola and Uganda are on track to meet the sanitation target which seeks to reduce by half the proportion of people without sustainable access to profitable toilets and safe drinking water and basic sanitation by the year 2015.

In the study area, access to toilets remains the unmentionable, shameful secret for even some very prosperous people. This has led the communities to rely on the free open areas to defecate and the consequent high cases of people taking ill and dying of Cholera and Diarrhea

Lack of access to toilets in Gwiwa Local Government Area is quite literally killing children, making adults sick and slowing progress-day after day.

Going through literature it was observed that no related work has ever been carried out in the study area. Therefore, the need for this study cannot be over emphasized.

Aims and Objectives of the Study

1. To examine the places (free open or latrine) where the communities in the Gwiwa Local Government Area defecate and dispose their faeces.
2. To assess the suitability of the latrine(s) used by the communities of Gwiwa Local Government Area.

3. To examine the Government awareness and intervention programmes towards achieving Millennium Development Goals on open defecation and sanitation in Gwiwa Local Government Area.

The Study Area

Gwiwa local government lies between Latitude 110N and 13^0 N and Longitude 8^0 E and 10^0 35'E. (BLSK, 2010). It has its head quarter at Gwiwa. It has an area of 450 km2 and a population of 124,517 at the 2006 census. Hausa and Fulani are the major tribes in the study area with minority business people of Igbos and Yorubas. Majority of the populace engage themselves in farming and cattle rearing. Agriculture is the main occupation of the inhabitants of Gwiwa local government area. The area is most famous for its leading position in producing millet, guinea corn, vegetables and tomatoes in the state. The area has vast loamy but non-marshy soils. The relief of the area is relatively flat (BLSK, 2010).The area is situated within the tropical wet and dry climate with variation of rainfall at different times. The rain season lasts from May to September with an average rainfall of 600mm to 1000mm. The temperature also varies at different times, with the high temperatures between April and September ((Kareem and Mbason, 2002). The local government is located within the Sudan Savannah Vegetation Zone.

Conceptual Framework

Community Action Cycle and the Theory of Reasoned Action Models on lack of Latrine Usage

Community Action Cycle

Community Action Cycle Model observed that open defecation is widely accepted and practiced within the rural villages, primarily because there is a disconnection in the knowledge on the relationship between open defecation, contamination of the water, and contraction of diarrheal diseases (Strandgaard and Jonahson, 2008). The model believes in mobilizing the community for action to allows them to decide, plan and set priorities, and act together to find an alternative to open defecation, in turn, reinforcing the sustainability of the behavior of change. Because the Community Action Model does not require individuals to act alone, it creates cohesiveness among the community members and allows them to work together to find a solution that is applicable to their situation (Keoprasith and Kizuki, 2012). Having the community find their own solutions forces them to use their own local materials and to be *really* sustainable as they use their own money as well. Using the collective resources in the community empowers them to take responsibility and work toward a common goal. The model was tested in rural Laotian villages, the socio-economic conditions are a huge inhibiting factor, but in one village, the community underwent community-led workshops on using toilets. Rural Laotians effectively implemented this behavior all with their own money and it was sustainable five years later (Keoprasith et al, 2012).

This model has been used very successfully, but is limited in that it does not take into account individual attitudes toward behavior change, which can cause limitations to its full adoption.

Theory of Reasoned Action

Theory of Reason Action (TRA) is a model focusing on behaviour at the individual level. This model emerges to formulate an understanding between the individual's attitude toward the behaviour and the actual adoption of it. As tested in rural Lao PDR, individual attitudes of the villagers are generally accepting of open defecation. This attitude is sometimes due to disconnect in knowledge surrounding open defecation and its contamination of water, subsequently causing diarrheal diseases (JICA, 2012). The theory of Reasoned Action model indicates that understanding the individual attitudes toward the behaviour will assist the researcher in figuring out the individual's intention. Finding a knowledge gap will show the researcher where disconnects are, which will enable them to fill the holes in order to prompt a behaviour change. This model also accounts for the individual's belief of whether they think others approve or disapprove of the behaviour. It was observed that the villagers in Lao PDR do not necessarily approve of open defecation behaviour, rather that they have found no other option (JICA, 2012) (Strangaard et al, 2008). However, since there is no other option, it is practiced often by everyone, therefore in this sense; it is a normative behaviour that is accepted. This model is limited in that it only focuses on intention to perform behaviour. It is also limited to individual's attitudes, beliefs, and perceptions.

Pairing the Community Cycle and the Theory of Reasoned Action models provides a thorough analysis of the community and individual behaviors, respectively. These models interact in creating a pathway to understanding the behavior of lack of latrine use. The beginning steps of merging the models involves the Theory of Reasoned Action's examination of behavioral, normative and control beliefs and how they interact with the Community Action Cycle's preparation to mobilize the community. Gathering information from the villagers in the rural areas of Lao PDR will create an informative understanding of how the social norms determine Laotians behavior of not using latrines. Rural Laotians understand that open defecation causes contamination of the water. Although open defecation is understood to be a threat to sanitation, it is an accepted practice among rural villagers in Lao DPR. The factors perpetuating the behavior among the rural villagers is the high perceived likelihood of their constraining factors, primarily their distance to latrines and low socioeconomic status. Also, open defecation is predominately practiced by the very young and very old because the constraining factor of distance to latrines is particularly high among these two groups. Gathering all of this information from the Laotian villagers directly will allow for a more efficient process of preparing a mobilization team.

Once the information from the local villagers is collected the next step is organizing the community. At this juncture it is essential to establish trust within the community. In the rural villages of Lao PDR, trust is placed in the village leaders (Keoprasith et al, 2012). The key role of village heads is to create community participation by choosing a team of local villagers who relate to the community members culturally and linguistically (Strandgaard et al, 2008). Using local facilitators is integral in order to create cohesiveness and foster cooperation in changing the community's behaviour of not using latrines.

To thoroughly understand the context of lack of latrine usage in rural villages of Lao PDR, we must recognize the community members' general attitude towards the behaviour, the subjective norms and their perceived behavioural control.

As stated above, rural Laotians are aware that open defecation is harmful to their health when waste contaminates water sources, but the behaviour is still a norm among villages and is practiced by most community members (JICA, 2005). Because the practice is continued due to convenience in location, they appear indifferent to behaviour change. This indifference likely stems from having little option in the areas in which they defecate.

Determining priorities in behaviour adoption through analysis of attitude and subjective norms in an inclusive setting facilitates an increased sense of perceived behavioural control and works toward a cooperative intention to behaviour change.

Once an intention is made, the community members can work toward setting objectives for the planning process. It is within this construct of the CAC that planning sessions are conducted and facilitated to outline the key steps in behaviour change.

As displayed in the model, after planning together, the community must act together in changing their behaviour of not using latrines. By community members exploring and analysing individual and community issues they are provided with the tools needed to implement a behaviour change in their community. This allows them to act as agents of change and address any issues that arise throughout the process.

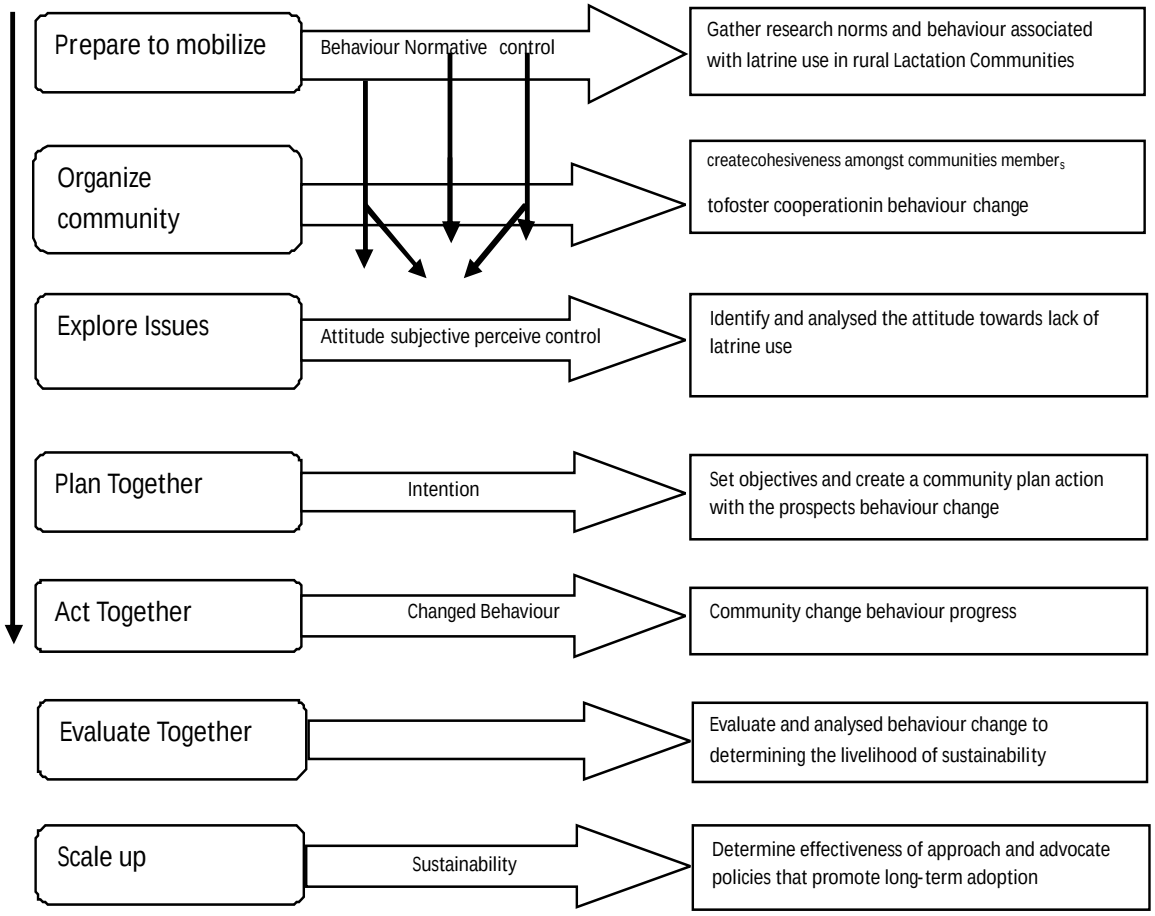
Throughout implementation of the behaviour, community members monitor progress and address any issues that arise. By acting together as a community the behaviour of not using latrines is very likely to decrease.

The last step in the process is scaling up. Successful behaviour change over time is further promoted by aiming to change the thought process of individuals in the community. With both successful completion and sustainability of behavior change the community will have the resources and information it needs to expand their project throughout Lao and advocate for policy changes.

Conceptual Framework Analysis of Community Cycle and the Theory of Reasoned Action models

Conceptual Framework Analysis on Lack of Latrine Usage

Community Cycle Theory of Reasoned Action models objectives



Methodology

In order to acquire data for this research work, 15 communities were selected out of the 28 in Gwiwa Local Government Area. These communities are Bajole, Gara-Gara, Tsubut, Gimin Gabas, Gimin Arewa, Gimin Yamma,Tsakanawa, Darina,Tazarce, Jarda, Gallah, Indirawa, Guntai, Karal and Yola Gari. This is because of the distance of the communities to major towns of the Local Government and is likely to practice open defecation. The research was conducted on 20th 28th February, 2014. A total number of 150 copies of structured questionnaires were administered to the households in the 15 communities. Ten (10) questionnaires were administered randomly on each community. This was complimented by detailed field observation of the open defecation sites and oral interviews with some leaders in the

communities. The administration of the questionnaires was on the residents' views on socioeconomic characteristics of the respondents such as site of defecation, nature and sanitation condition of the latrine and government and NGOs effort towards achieving the Millennium Development Goals (MDGs). The analysis was based on tables, mean, frequency and percentages.

Results

The Socio Economic Characteristics of Respondents

Demographic analysis of the respondents' shows that age groups of 30 40years have the highest number of respondents (44.7%).This was followed by the age group of 20 30years with 27.3%. The age group of 10 20 followed with the ranking of 14.7%. The least percentage year group is 40 years and above with 13.3%. This shows that majority of the respondents are the bread winners for their respective families within their communities, according to Amaza, (2004).

The results observed that majority of the respondents 82.7% were males while 17.3% were females, which mean that males are the heads of households and have to be consulted for any information by right in Islam Religious practices. The females were also represented in providing information on the open defecation. This might also be due to the fact that women are involved in domestic cooking and taking care of the children at home and should be aware of problems of latrines and faeces disposal in the area.

The results also show that majority of the respondents (76.7%) were married, 13.3% of the respondents were singles and 10% of the respondents were widows/widowers. This result is in line with the findings of Jande, (2005) who reported that married people have more responsibilities such as the provision of food, education, health and well-being of their spouses and children. Most of the respondents (42.7%) based on the result no formal education, 29.3% of the respondents attended primary education, 24.7% of the respondents attended secondary school and 3.3% of the respondents attended tertiary education. This depicts that educational level of the people is proportional to the number of people that have latrines this implies that those that are well educated construct their latrines. This is not surprising since a great percentage of the people in the communities have little education. This shows that literacy level among the communities in the study area is low.

The result also indicates that majorities (90%) of the respondents were farmers by primary occupation, 4.7% of the respondents were craftsmen, 4% of the respondents were civil servant and 1.3% of the respondents were traders.

The distribution of the household size revealed that the largest households were between 5 -10 people making up to 45.3%, 15 29 household making 17.3%, 10 15 people/household represent 16.2% and the rest making up 5.3%

Table 1: Socio economic characteristics of respondents

Age	No. of Respondents	Percentage %
10 – 20	22	14,7
20 – 30	41	27.3
30 – 40	67	44.7
40 and above	20	13.3
Total	150	100
Gender		
Male	124	82.7
Female	26	17.3
Total	150	100
Marital Status		
Single	20	13.3
Married	115	76.7
Widow/Widower	15	10
Total	150	100
Years of informal school		
No formal education	64	42.7
Primary education	44	29 .3
Secondary education	37	24.7
Tertiary education	05	3.3
Total	150	100
Occupation		
Civil Servant	06	4
Public servant	00	0
Farmer	135	90
Trader	02	1.3
Craftsmen/women	07	4.7
Total	150	100
Household size		
1 – 5	08	5.3
5 – 10	26	17.3
10 - 15	24	16.2
15 – 20	68	45.3
20 – 25	08	5.3
25 – 30	08	5.3
30 and above	08	5.3
Total	150	100

Respondents (Household) Sites for defecation in Gwiwa Local Government Area
The frequency on the table gives the various sites for defecation in Gwiwa Local Government Area.
The result shows that 54.66% of the respondents are defecating in the free open bush, 20.67% of the respondents defecate in latrines, 14% of the respondents defecates and deposit children's faeces at the backyard and 10% of the respondents defecate in dug holes and cover it.

Table 2: Household Sites of defecation in Gwiwa Local Government Area

Sites of defecation	No. of Respondents	Percentage (%)
Defecate in Latrine	31	20.67
Defecate in holes and cover	15	10
Defecate at Backyard	22	14.67
Defecate in free Open bush	82	54.66
Total	150	100

Respondents (Households) Nature of Latrines in Gwiwa Local Government Area

The result explains the nature of latrines in the study area. The results reveal that 44.67% of the respondents have hand dug latrines with cross sticks. 22.67% of the respondents have hand dug latrines with slabs, 18% of the respondents have modern water system latrines and 4.66% have collapsed latrines.

Table 3: Households Nature of Latrines in Gwiwa Local Government Area

Nature of Latrines	No. of Respondents	Percentage (%)
Modern Water System	27	18
Hand Dug latrine with Slab	34	22.67
Hand Dug Latrine with cross sticks	67	44.67
Latrine without Cover	15	10
Collapsed Latrines	07	4.66
Total	150	100

Respondents Household Sanitation of Latrines used in Gwiwa Local Government Area

The results portrayed the nature of the latrines in the study area. The results observed that 90.67% of the respondents' latrines were in used while 9.33% of the respondents' latrines were not in used'

For the maintenance of the latrines, 53.33% of the respondents do not maintain their latrine well while 46.67% of respondents maintain their latrines well.

The results also reveal that 60% of the respondents' latrines have no covers while 40% of the respondents latrines are covered. Majority of the respondents (63.33%) of the respondents have no hand washing facilities in their latrines while 36.67% of the respondents have hand washing facilities in their latrines.

The results also reveal that 63.33% of respondents do not dispose properly their anal cleansing materials while 36.67% dispose properly their anal cleansing materials. It is observed that 64.67% of respondents do not dispose children faeces properly while 35.33% dispose children's faeces properly.

Table 4: Household Sanitation of Latrines used in Gwiwa Local Government Area

Nature of the Latrines	No. of Respondents		No. of Respondents	
	Yes	Percentage	No	Percentage
Household latrine being in use	136	90.67	14	9.33
Well mainta ined latrines	70	46.67	80	53.33
Latrine not Covered	60	40	90	60
Hand wash facilities availability	55	36.67	95	63.33
Anal cleansing materials properly disposed	55	36.67	95	63.33
Children faeces properly disposed	53	35.33	97	64.67
Total	150	100	150	100

Occurrence of Faeces related Diseases in Gwiwa Local Government Area

The results show the occurrence of faeces related diseases. The table reveals that 41.33% of the respondents experience Diarrhea diseases, 40% of the respondent's experience Typhoid diseases, and 14% of the respondents experience Cholera and 4.67% experience Bilharzia.

Table 5: Occurrence of Faeces related Diseases in Gwiwa local Government area

Related Diseases	No. of Respondents	Percentage (%)
Cholera	21	14
Typhoid	60	40
Diarrhea	62	41.33
Bilharzias.	07	4.67
Total	150	100

Impact of Government Intervention Programme(s)

This section explains the government/NGOs programme(s) implemented in the communities of Gwiwa Local Government Area that could have created awareness on the need to stop open defecation.

The table reveals that 70% of the respondents agreed that the state government has sensitized the communities on the need to build and use latrinse, 23.33% of the respondents agreed that the World Bank have reach the communities with Water and Latrine Sanitation programmes and 6.67% of the respondents attested to the fact that NGOs have also sensitized the communities on the need to stop open defecation.

Table 6: Government awareness and Intervention Programme(s)

Gover nment Intervention Programmes	No. of Respondents	Percentage (%)
NGOS	10	6.67
World Bank Programmes	35	23.33
Federal/State/ Programmes	105	70.00
Total	150	100

Discussion

The analysis of the data collected from the fifteen (15) communities in Gwiwa Local Government Area of Jigawa State reveals that majority of the people practices open defecation in the places they called bush, others use backyard to defecate and deposit their children's faeces while only 20.67% of them use latrines (table 2). This agreed with the recent UNICEF (2012) report that 33million Nigerians still defecate in the open. According to UNICEF's country

Representative Dr. Suomo Sakai, the unwholesome practice leads to the depositing of about 1.7 Million tons of faeces into the environment annually. Generally, open defecation is being practiced widely in the communities of Gwiwa Local Gorvenment Area. During the interviews, majority of the respondents hold the belief that visiting a public latrine will cause one to be possessed by demons or lose one magical powers. Some indulge in open defecation because it is costless, it also fertilizes the soil. Others hold it that they want to protect their bodies from bad odour or smell from pit latrines. The respondents in the study area considered the stool of children as harmless because their faeces are smaller and smell less and therefore were deposited at the backyard.

On the Households Nature of Latrines in Gwiwa Local Government Area, the results reveal that majority of the respondents in the communities use hand dug latrine with cross stick, few with slabs, some without cover and only 18% of the respondents have and use modern toilet system (table 3). Few members of the communities of Gwiwa Local Government Area have no access to functioning latrines, which means adults and children alike have no option but to defecate in the open. This result agreed with the 2012 United Nations Children's Fund report, which stated that over 100 million people in Nigeria do not have access to improved toilet facilities, out of which over 45 million defecate in the open. Majority of the respondents attributed the poor nature of latrines to lack of money to construct the modern toilet.

In Gwiwa Local Government Area, majority of the respondents' household latrines are in use, except that most of the latrines have no covers and are not well maintained. Their latrines have no hand washing material and children faeces are not properly disposed. In the study area, the latrines are not suitable for use because of the poor sanitation. The latrines smell badly especially during the day time when the sun rises and the latrines are found filled with flies both inside and outside.

Majority of the respondents in the study area observed the frequent occurrences of typhoid, diarrhea among children and cholera (table 5). These are faeces related diseases and can be transmitted in any way to the members of the communities. As observed by Alhassan, (2010), that majority of the excreta-related infections are obtained through ingestion, less often through inhalation. That excreta-related infections travel through a variety of routes from one host to the next, either as a result of direct transmission through contaminated hands, or indirect transmission via contamination of drinking water, soil, utensils, food and flies.

According to the respondents, they have experienced the occurrences of these diseases among women and children especially in the past three years. This finding agreed with the statement by

the United Nations Children Fund (UNICEF) released to coincide with the World Toilet Day that lack of toilet remains one of the leading causes of illness and death among children.
The results reveal that the State, Local and World Bank have sensitized the communities of Gwiwa Local Government Area on the need to stop open defecation (table 6). The respondents attested to the fact that verification and certification of open defecation and total sanitation programme was conducted by UNICEF on 18th 23th December, 2013. Despite these efforts by the government and NGOs, the communities of Gwiwa Local Government Area are still practicing open defecation.

Conclusion

Based on the findings of the study, it is established that the communities of Gwiwa Local Government Area still practice open defecation despite the awareness created. From the perception of the respondents, open defecation is costless and faster but it is at the detriment of the health of the communities. It is therefore clear that the programme of MDGs as touching Total Sanitation Communities has not yet been felt in the study area. Hence, the target of achieving this goal by 2015 would be impossible.

It is necessary for all Government and Non-Governmental Organizations as well as private sector and individuals to join forces together to fight the behavior of open defecation and its consequent effects on that threatening the health of the communities.

Recommendations

It is necessary to facilitate the provision of physical sanitation facilities such as household toilets and sockaways to the communities by the Government and NGOs.

A conscious effort should be made to involve women in the campaign to end open defecation as recommended by the Strandgaard et al, (2008).

1. To enlighten, guide and give the people technical support on how to construct their own pit latrines.
2. The state government should embarked on building public toilets in public schools, markets along Major Street and Car parks to enhance public hygiene,
3. The state government should set up a monitoring committee in nooks and crannies of the local government to monitor the people on the need to construct and use their toilets.
4. To bring instant change in the understanding and behaviour of the people by igniting sparks of awareness in their minds. This process is adopted to motivate community members through their own involvement and initiative to build and use latrines as well as bring positive changes in their hygiene and sanitation behaviour. This method helps to change people's perception allowing them to start thinking from a new dimension and perspective

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