

Baby Wash Radio Drama Program Impact Assessment Survey Results in District #1, Grand Bassa County, Liberia, 2022

James V.T. Tuckolon^{1*}, Momo M. J Kollie², Julius Ngangawulor³, Beyanwu Peters⁴
Ministry of Health, Grand Bassa County Health Team, Buchanan City, Grand Bassa, Liberia

Abstract:- Poor conditions of WASH (Water, Sanitation and Hygiene) are associated with 6.6% of the global burden of disease and disability, and 2.4 million deaths annually due to diarrhea, subsequent malnutrition, and their consequences (Pruss-Ustun, A., & World Health Organization. (2008). In Liberia, diarrhea is a leading cause of child illness; in 2017, diarrhea was estimated to be responsible for 8% of deaths among children in the country under age 5 (UNICEF 2020).

Objective: This survey aimed to assess the impact of the baby WASH radio Drama program in District #1, Grand Bassa County.

Methods: The assessment team used four of the six health facilities including five targeted communities per each clinic that make up 5% of their catchment areas. In each clinic catchment area, the assessment team used ten (10) targeted respondents. A total of 200 respondents in 20 targeted communities were selected.

Results: The findings from this assessment shows that the respondents had low socio economic and educational levels. It also shows that more of the respondents prefer the Baby WASH drama to be performed in the communities using both English and dialect, preferably the Bassa language.

Conclusion: This radio program which seeks to improve behaviors change communication (BCC) at the community level is a great way to reduce childhood morbidity and mortality. However, for such program to be successful in Grand Bassa County, the program should be piloted along with the training of Community Health Volunteers on the use of drama in the local language.

Keywords:- Baby, WASH, Radio Drama, Impact Assessment, Survey, District, Grand Bassa.

I. INTRODUCTION

Concern Worldwide Liberia in collaboration with the Grand Bassa County Health Team implementation of the Baby WASH project commenced in April 2022. The purpose of the project is to integrate water, sanitation and hygiene (WASH) into maternal, new born and child health (MNCH), early childhood development (ECD) and nutrition, to have a deeper impact on child health outcomes in district one and, Grand Bassa at large. The activity is being done through radio drama project at radio Diahn Blae in District one and Ablee Jay radio in Buchanan city, Grand Bassa County. As the continuation of the project, the team conducted impact assessment survey in September 2022.

Concern Worldwide Liberia is currently implementing Irish Aid funded project (Multi-sectoral response aiming to improve nutritional status of children under 5 years of age in two counties of Liberia) that will contribute to a sustainable reduction of chronic malnutrition of children under five years by addressing key drivers of undernutrition in two counties; Montserrado (Rural Montserrado) and Grand Bassa County (District #1). This project has Action against Hunger (AAH) as Lead Implementing Agency, while Concern Worldwide (CWW) and Water Aid (WA) are the other implementing partners to this Consortium Project.

Poor conditions of WASH are associated with 6.6% of the global burden of disease and disability, and 2.4 million deaths annually due to diarrhea, subsequent malnutrition, and their consequences (Pruss-Ustun, A., & World Health Organization. (2008). In Liberia, diarrhea is a leading cause of child illness; in 2017, diarrhea was estimated to be responsible for 8% of deaths among children in the country under age 5 (UNICEF 2020). The prevalence of diarrhea peaks among children age 6-23 months (23%-25%). This corresponds to the time when children start losing protection from maternal antibodies through breastfeeding, begin to crawl and walk, and are at increased risk of contamination from the food, water, and the environment (LDHS 2019-2020). By county, diarrhea prevalence ranges from 7% in Lofa to 25% in Grand Bassa (LDHS 2019-2020).

Most of these diseases burden falls on children in low income countries. Some authors have claimed that poor WASH accounts for as much as 50% of maternal and childhood underweight, primarily through the well-described synergy between diarrheal diseases and undernutrition, whereby one increases vulnerability to the other (Mara, D., Lane, J., Scott, B., & Trouba, D (2010).

Concern Worldwide Liberia and Grand Bassa County Health Team implementation of the Baby WASH project commenced in April 2022. The purpose of the project is to integrate water, sanitation and hygiene (WASH) into maternal, new born and child health (MNCH), early childhood development (ECD) and nutrition, to have a deeper impact on child health outcomes in district one and, Grand Bassa at large. In district#1, there are six health facilities. The project focuses on CONCERN WORLD WIDE catchment areas in District one, Grand Bassa County, Liberia. This survey aimed to assess the impact of the baby WASH radio Drama program in District #1, Grand Bassa County.

II. METHODOLOGY

In district#1, there are six health facilities. The assessment team used four of the six health facilities including five targeted communities per each clinic that make up 5% of their catchment areas. In each clinic catchment area, the assessment team used ten (10) targeted respondents. A total of 200 respondents in 20 targeted communities were selected with 200 structured questionnaires as part of the impact assessment of the baby WASH project.

III. BABY WASH IMPACT ASSESSMENT SURVEY DESIGN

A structured questionnaire was developed and respondents were interviewed one on one in their catchment communities. A total of 200 respondents in 20 targeted communities were selected with 200 structured questionnaires as part of the impact assessment of the baby WASH project. This was 5% of the total targeted population of the four health facilities. The total population of the four health facilities were 210.



Fig. 1: Mr. James V.T Tuckolon and Mr. Momo M.J. Kollie conducting interview at the Edina Catchment Communities in District #1, Grand Bassa county, Liberia ,Date: August 25,2022, Photo credit: Momo M.J. Kollie and James Tuckolon

IV. ETHICAL CONSIDERATIONS

Before the start of the Baby WASH project implementation in district# 1, there was an inception meeting held with the district health team and district stakeholders about the project. The baby WASH drama was performed in front of the both teams before the airing of the drama.

Furthermore, before entering the community, the impact assessment team also introduced themselves and explained the purpose of the impact assessment to the communities’ leaderships. All study participants were also informed of the purpose of the impact assessment and assured of the confidentiality of their responses.

V. ETHICAL CONSIDERATIONS

Before the start of the Baby WASH project implementation in district# 1, there was an inception meeting held with the district health team and district stakeholders about the project. The baby WASH drama was performed in front of the both teams before the airing of the drama.

Furthermore, before entering the community, the impact assessment team also introduced themselves and explained the purpose of the impact assessment to the communities’ leaderships. All study participants were also informed of the purpose of the impact assessment and assured of the confidentiality of their responses.

VI. RESULTS

After analysis the data from respondents, the following are the results obtained.

A. Results: Baby WASH Project impact Assessment in District# 1, Grand Bassa County, Liberia



Fig. 2: CONCERN Worldwide Local Hand Hygiene Station in Compound #1 Catchment community (Kanque Town),Date: August 26,2022

Photo Credit: Momo M.J. Kollie

Demographic data	Compound #1 Clinic n=50	%	Llodysville Clinic n= 50	%	Little Bassa Clinic n=50	%	Edina Clinic n=50	%
1.Age Range								
Under 18	0	0	1	2	0	0	0	0
18-24	11	22	10	20	10	20	10	20
25-34	16	32	15	30	18	36	13	26
35-44	15	30	12	24	13	26	13	26
45-54	6	12	11	22	7	14	13	26
55-64	2	4	1	2	1	2	1	1
65-74	0	0	0	0	0	0	0	0
75. and above	0	0	0	0	1	2	0	0
2.Gender								
Male	30	60	32	64	18	36	21	42
Female	20	40	18	36	32	64	29	58
Total	50	100	50	100	50	100	50	100
3.Education Level								
Primary /Elementary	11	22	13	26	7	14	24	48
Secondary/High School	9	18	7	14	8	16	3	6
High School Graduate	6	12	0	0	0	0	0	0
College/University Graduate	0	0	0	0	0	0	0	0
Not Schooled	24	48	30	60	35	70	23	46
Total	50	100	50	100	50	100	50	100
Christian	50	100	50	100	50	100	50	100
4. Religion								
Muslim	0	0	0	0	0	0	0	0
Non-Christian/Muslim	0	0	0	0	0	0	0	0
Total	50	100	50	100	50	100	50	100

Table 1: Demographics Results

The above table shows that in district#1 communities,32%(n=50) of respondents were between the ages of 25-34 years while the least were respondents ages less than 18years constituted at 2%(3) (n=200) in all four health facilities catchment areas. In Llodysville catchment communities ,30% of respondents were between 25-34years old who were interviewed. At the same time, Little Bassa catchment communities 36%(n=50) of respondents were between the ages of 25-34years old, while Edina communities,26%(n=50) of respondents were between the ages of :25-34,35-44 and 45 -54 respectively.

The above table also shows that the educational levels of respondents of Compound #1 catchment communities, 48%(n=50) of respondents were not schooled with 60 percent male respondents while 40 percent of female respondents. Lowest level of education was 0% college graduate in Compound #1 catchment communities.

In Llodysville catchment communities,60%(n=50) of the respondents were not schooled with 64% male while 36% of female respondents. Lowest level of education of respondents was 0% college graduate and high school graduate in Llodysville catchment communities.

Little Bassa catchment Communities had 70%(n=50) of respondents not been schooled with 36% males while 64% females. Lowest level of education of respondents was 0% at college graduate and high school graduate in Little Bassa catchment communities respectively.

Finally, the educational levels of Edina catchment communities of respondents constituted 48% of primary schools attended while 0% college or high school graduate as well as 46% of respondents had no education. All of the respondents in all of the four health facilities catchment communities were from the Christian background which constituted 100%. (n=200) respectively.

B. Baby WASH Project Impact Assessment Questionnaire on Radio

Respondents	Compound#1 Clinic n=50	%	Llodysville Clinic n=50	%	Little Bassa Clinic n=50	%	Edina Clinic n=50	%
1. Radio Listeners								
a. Yes	35	70	24	48	30	60	29	58
b. No	15	30	26	52	20	40	21	42
Total	50	100	50	100	50	100	50	100
2. Radio stations Respondents listened to most								
Radio Gbehzohn	5	10	16	32	11	22	25	50
Magic Radio	8	16	6	12	3	6	10	20
Radio Diahn Blae	35	70	19	38	28	56	23	46
Radio Dugbah	2	4	9	18	5	4	12	24
ELBC	0	0	4	8	0	0	8	33
BBC	0	0	0	0	0	0	0	0
Truth FM	0	0	0	0	0	0	4	8
Candle FM	0	0	0	0	0	0	0	0
Freedom FM	0	0	0	0	0	0	0	0
Ablee Jay	0	0	0	0	1	2	0	0

Table 2: Respondents On Radio Information

C. Result of opened Questionnaire for Baby WASH impact Project Assessment

Respondents	Compound#1 Clinic	%	Llodysville Clinic	%	Little Bassa Clinic	%	Edina Clinic	%
3.Areas of listening to the Radio								
n=50								
At home	35	70	24	48	31	62	28	56
On the farm	0	0	0	0	0	0	0	0
No areas of listening to radio	15	30	16	32	19	38	22	44
Total	50	100	50	100	50	100	50	100
4. Heard about Baby WASH Drama								
Yes	26	52	5	10	9	18	20	40
No	24	48	45	90	41	82	30	60
Total	50	100	50	100	50	100	50	100
4 a. If yes which radio stations did you hear the drama ?								
n=26		n=5			n=9		n=20	
Diahn Blae	25	96.1	3	60	8	88.8	15	75
Gbehzohn	1	3.8	1	20	0	0	4	20
ELBC	0	0	1	20	1	11.1	0	0
Radio one	0	0		0	0	0	1	5
Total	26	100	5	100	9	100	20	100
5. Can the present of the Baby WASH program improve your child health status in this community?								
Yes	50	100	50	100	50	100	50	100
No	0	0	0	0	0	0	0	0
Total	50	100	50	100	50	100	50	100
6. Did the baby WASH radio program make any impacts in your life and family?								
Yes	26	52	5	10	9	18	20	40
No	24	48	45	90	41	82	30	60

<i>Total</i>	50	100	50	100	50	100	50	100
6 a. If yes what are the impacts?								
<i>Reduction of running stomach in the community/home</i>	7	27	2	40	0	0	6	30
<i>Good health</i>	8	31	3	60	4	44	5	25
<i>Made us to wash our hands before feeding our children and doing other works</i>	11	42	0	0	5	56	9	45
<i>Total</i>	26	100	5	100	9	100		100
6 b. If no why?								
<i>I do not have radio to listen to</i>	5	20.8	13	28.8	12	29.2	12	40
<i>I am not interested in listening to radio</i>	3	12.5	7	15.5	5	12.2	9	30
<i>I have not heard about this baby WASH Radio drama</i>	16	66.6	25	55.5	24	58.5	9	30
<i>Total</i>	24	100	45	100	41	100	30	100
7. How can the coverage for this Baby WASH Drama project be more effective in this community?								
<i>Train and use the community health volunteers to perform the drama in the local language and English in the communities</i>	48	70.6	50	42.3	47	45.6	48	44
<i>Train and use the community health volunteers to pass the drama message in the communities</i>	42	61.7	50	42.3	47	45.6	44	40
<i>Continue the radio drama program on Baby WASH</i>	18	26.4	18	15.2	9	8.9	17	15.6
<i>Total</i>	68	100	118	100	103	100	109	100
8a. What are your likes about this Baby WASH project when it comes in this community?								
<i>Good health promotion/education</i>	33	80.4	26	60.4	25	50	28	56
<i>Gives more knowledge</i>	2	4.8	5	11.6	12	24	3	6
<i>Improves our health in the community</i>	6	14.6	3	6.9	1	2	9	18
<i>I like everything about this program when it comes in this community</i>	0	0	9	20.9	12	24	10	20
<i>Total</i>	41	100	43	100	50	100	50	100
8b. 8a. What are your dislikes about this Baby WASH project when it comes in this community?								
<i>No dislike</i>	50	100	50	100	48	96	46	92
<i>Only on Radio</i>	0	0	0	0	2	4	4	8
<i>Total</i>	50	100	50	100	50	100	50	100

Table 3: Responds for opened Questionnaires

The table shows that 70% of respondents agreed they listened to radio in Compound#1 catchment communities. At Llodysville catchments communities, 48% of respondents listened to radio, Little Bassa Catchment Communities, 60% of respondents listened to radio while Edina catchment communities, 58% of respondents listen to radio. Of the four health facilities catchments communities, Compound#1 communities had the highest radio listeners of 70% while Llodysville had the lowest radio listeners of 48% respectively. In compound# 1 catchment communities 52% (n=50) of the participants agreed that they have heard about the baby WASH drama program at Radio Diahn Blae while 48% (n=50) said they never heard about the baby WASH drama at any radio. In Llodysville catchment communities, 10% (n=50) of the participants/respondents agreed that they have heard about the baby WASH program while 90% (n=50) said they have no idea about the Baby WASH program. For the catchment communities of Little Bassa, 18% (n=50) of participants responded that they have heard about the baby WASH drama while 82% (n=50) had no idea about the program. Finally, for Edina catchment communities, 40% (n=50) of participants agreed that they have heard about the baby WASH drama program while 60% (n=50) said no they have not heard any Baby WASH drama before at any radio station.

Therefore; the four health facilities catchment communities, 30% (n=200) of participants agreed that they have heard about the baby WASH drama program while 70% (n=200) of participants they have not heard about the baby WASH drama program.

From the respondents' points of view, the existence of the Baby WASH program improves their children health status in the community. All four health facilities catchment communities' respondents agreed 100% (n=200) for Baby WASH program to be implemented in each facilities catchment area. For those of respondents who agreed that they have heard about the baby WASH drama program, within the four health facilities catchment areas, the impacts in their lives and family, 24.3% (n=200) of respondents said reduction of running stomach in their homes or community, whereas 40% (n=200) of respondents said the baby WASH drama project will have them in good health in their community. At the same time, 36% (n=200) of respondents said that the Baby WASH program made them to wash their hands before feeding their children and doing other work.

VII. MAJOR FINDINGS

The findings from this survey showed that the respondents had low socio economic and educational levels. A total of 112 of the 200 respondents representing 56% (n=200) did not go to school. This also shows that more of the respondents prefer the Baby WASH drama to be performed in the communities using both English and the local dialect, preferably the Bassa language.

VIII. DISCUSSION

The findings of this baby WASH impact assessment showed the demographic characteristics in district#1 communities, 32% (n=50) of respondents were between the ages of 25-34 years while the lowest were respondents ages less than 18 years. In Llodysville catchment communities, 30% of respondents were between 25-34 years old who were interviewed. At the same time, Little Bassa catchment communities 36% (n=50) of respondents were between the ages of 25-34 years old, while Edina communities, 26% (n=50) of respondents were between the ages of :25-34, 35-44 and 45 -54 respectively.

The impact assessment also shows that the educational levels of respondents of Compound #1 catchment communities were at 48% (n=50) who were not schooled with 60 percent male respondents while 40 percent of female respondents. Lowest level of education was 0% for college graduate in Compound #1 catchment communities.

In Llodysville catchment communities, 60% (n=50) of the respondents were not schooled with 64% males while 36% of females' respondents. Lowest level of education of respondents was 0% for college graduate and high school graduate in Llodysville catchment communities.

Little Bassa catchment Communities had 70% (n=50) of respondents not been schooled with 36% males while 64% females. Lowest level of education of respondents was 0% for college graduate and high school graduate in Little Bassa catchment communities respectively.

The educational levels of Edina catchment communities of respondents constituted 48% for primary schools while 0% for college or high school graduate as well as 46% of respondents had no education.

All of the respondents in all of the four health facilities catchment communities were from the Christian background which constituted 100%. (n=200) respectively.

This Baby WASH impact assessment findings show that 70% of respondents agreed they listened to radio in Compound#1 catchment communities. At Llodysville catchments communities, 48% of respondents listened to radio, Little Bassa Catchment Communities, 60% of respondents listened to radio while Edina catchment communities, 58% of respondents listen to radio.

Of the four health facilities catchments communities, Compound#1 communities had the highest radio listeners of 70% while Llodysville had the lowest radio listeners of 48% respectively. In compound# 1 catchment communities 52% (n=50) of the participants agreed that they have heard about the baby WASH drama program at Radio Diahn Blae while 48% (n=50) said they never heard about the baby WASH drama at any radio station.

In Llodysville catchment communities, 10%(n=50) of the participants/respondents agreed that they have heard about the baby WASH program while 90% (n=50) said they have no idea about the Baby WASH program. For the catchment communities of Little Bassa, 18%(n=50) of participants responded that they have heard about the baby WASH drama while 82%(n=50) had no idea about the program. Finally, for Edina catchment communities, 40%(n=50) of participants agreed that they have heard about the baby WASH drama program while 60%(n=50) said no they have not heard any Baby WASH drama before at any radio station.

Therefore; the four health facilities catchment communities, 30% (n=200) of participants agreed that they have heard about the baby WASH drama program while 70%(n=200) of them have not heard about the baby WASH drama program. From the respondents' point of views, the present of the Baby WASH program improves their children health status in the community. All four health facilities catchment communities' respondents agreed 100%(n=200) for Baby WASH program to be implemented in each facilities catchment area. For those of respondents who agreed that they have heard about the baby WASH drama program, within the four health facilities catchment areas, the impacts in their lives and family, 24.3%(n=200) of respondents said reduction of running stomach in their homes or community, whereas 40% (n=200) of respondents said the baby WASH drama project will have them in good health in their community. At the same time, 36%(n=200) of respondents said that the Baby WASH program made them to wash their hands before feeding their children and doing other work. For those said no, the reason was that they did not have radio to listen to about 30%, for those said they have not listened to the baby WASH drama program constituted 53% of them in all four health facilities catchment areas.

- Findings or responses per health facility catchment communities in support of training and the use of CHVs to perform the drama in the local language and in English in the communities: Compound #1 catchment areas showed 70.6%, Llodysville 42.3%, Little Bassa 45.6%, and Edina 44%.

ACKNOWLEDGEMENT

A. Technical Advisors:

- Timothy Owhochukwu Concern World Wide, Grand Bassa, Liberia
- Dr. Sylvester Wheh- (CHO)- Grand Bassa County Health Team
- Isaac Barlue - Concern World Wide, Grand Bassa, Liberia

B. Funding Source

- Irish Aid, WASH Consortium
- Concern World wide

- For those who support the use of community health volunteers to pass the drama message in the communities through awareness in addition to training: Compound #1 catchment areas, 62%, Llodysville 42%, Little Bassa 46% and Edina 40%
- Participants who support the use of radio only: compound#1 26%, Llodysville 15%, Little Bassa, 9% and Edina 16% respectively.

Feedback from the respondents on the use of the radio drama program alone shows the lowest from this impact assessment survey findings as seen above.

IX. CONCLUSION

Provision of WASH is crucial for ensuring practical health service delivery and especially in medium and low income countries without water supply and improved sanitation facilities both in health care facilities and at community level of infectious disease will always increase and deaths associated with waterborne diseases will continue to be higher among children. As the results of this baby WASH impact assessment in district #1, Grand Bassa county, the implementation of this project might help to reduce childhood diarrhea malnutrition, under five mobility and mortality from the childhood diseases in Grand Bassa.

X. RECOMMENDATIONS

- The findings of this baby WASH impact assessment shows that, for project to be more effective in the various health facilities catchment areas, there is a need to train and use the community health volunteers to perform the drama in the local language and in English in the communities
- Development of standardized training module of Baby WASH for health workers and community health volunteers
- That the project be extended to all health districts in Grand Bassa county, Liberia
- That the Baby WASH drama be aired in all local radio stations in Grand Bassa
- That the project be adopted by the central Ministry of Health Social Mobilization unit for other counties in Liberia.

C. Impact Assessment Team

- James V.T. Tuckolon – (Technical Advisor to Child Health) – Grand Bassa County Health Team
- II. Momo M. J. Kollie - (Neglected Tropical Diseases Control Focal Point)- Grand Bassa County Health Team
- Roosevelt Nymah – (Affiliating Student) - Grand Bassa University, Department of Nursing
- Enoch Mensah- (Affiliating student)- Grand Bassa University, Department of Nursing

REFERENCES

- [1.] Pruss-Ustun, A., & World Health Organization. (2008). Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health. World Health Organization.
- [2.] Mara, D., Lane, J., Scott, B., & Trouba, D. (2010). Sanitation and health. PLoS medicine, 7(11), e1000363.
- [3.] Liberia Demographic and Health Survey. (2019-2020)