

THE REPUBLIC OF THE GAMBIA
EXPENDED PROGRAM ON IMMUNIZATION
DEPARTMENT OF STATE FOR HEALTH AND SOCIAL WELFARE



NATIONAL INJECTION SAFETY PRACTICE ASSESSMENT IN THE GAMBIA

*Vaccine Independent Initiative Project for Africa (FED/ARIVA)
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Preliminary Report

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	4
LIST OF ACRONYMS	5
SUMMARY	6
INTRODUCTION	8
Generalities	8
Justifications	9
OBJECTIVES	10
MATERIAL AND METHODS	10
Sampling Method and Sample Frame Study	10
Sample Size	11
Study Design	11
Research Method Description	11
Criteria Of Inclusion and Exclusion	12
Supervision	12
Data analysis	12
RESULTS	12
Adhesion To Injection Safety Policy	12
Equipment And Material Shortage	12
Wastage Management Vaccine and Material Supplies	13
Training and Supervision Activities	13
DISCUSSIONS	13
RECOMMANDATIONS	14
For The Government	14
For the EPI	14
For The Partners	14
CONCLUSION	15
REFERENCES	16
LIST OF APPENDIX	17
Appendix 1: Tables	17
Appendix 2: Health Divisions And Public Health Facilities Visited	20
Appendix 3: The questionnaire	21
The Central level	21
The Health Divisional level	22
The Health facility level	23
Appendix4: The Budget	25

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All who facilitated the successful completion of the study.

LIST OF ACRONYMS

AD Syringes: Auto-disable Syringes

ARIVA: Appui Régional à l'Indépendance Vaccinale en Afrique

CATR: Cellule d'Appui Technique Régionale

CHN: Community Health Nurse

95% CI: 95% Confidence interval

CREDES: Centre de recherches et d'Études pour le Développement de la Santé

CRD: Central River Division

DHS: Direction of Health Services

DHT-W: Division Health Team-West

EPI: Expanded Program On Immunization

HIV:/AIDS Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome

IDSR: Integrated Disease Surveillance and Response

LRD: Lower River Division

NBED: North Bank East Division

NBWD: North Bank West Division

PHC: Primary Health Care

PHF: Public Health Facility

URD: Upper River Division

SOS: Secretary of State

TBA: Traditional Birth Attendant

WBD: Western Bank Division

WHO: World Health Organization

VHW: Village Health Worker

Summary

Context and Justification

European Union under the ARIVA Project encompasses a strong commitment to contribute to interventions that reinforce the fight against communicable diseases. As a result the ARIVA scope aims to contribute toward a sustainable improvement of high immunization coverage for diseases targeted by the Expanded Program On Immunization.

In addition the ARIVA Project has a major concern with contributing and facilitating particularly vaccine supply and demand in the Public Health Facilities as well as boosting immunization routine in these structures.

As part of its program for high rate coverage among EPI target population, quality and injection safety practices become a stake and a major concern as well as a enormous challenge specially when considering the risk of HIV/AIDS and Hepatitis B infection for patients, medical staff and the community during injection practice activities or through out soiled vaccine waste materials.

Moreover most EPI reviews show a non-generalization of AD Syringes in routine immunization, a lack of incinerators in health centers, an inadequate availability and utilization of Safety Boxes during vaccination activities and the practices of using sterilized syringes are mostly common in routine vaccination.

Studies related to injection safety were conducted in countries having support from CATR/ARIVA but practical recommendations arisen from these studies have not yet been implemented.

So an assessment is needed to see how far these recommendations are been carried out on all levels of the health structure in The Gambia.

Objectives

- To confirm if the National Health Authorities validated the study conducted in Injection Safety Practice in 2001 in The Gambia under CATR/ARIVA Project.*
- To examine if a strategic plan of action or policy for injection safety was built according to recommendations from the April 2001's National Survey on Injection Safety.*
- To check implementation of the action plan for injection safety particularly on a regular basis.*
- To check the standing and a regular availability of sufficient injection material.*
- To verify vaccine waste processing and management in public health structures (Safety Boxes, and incinerators).*
- To check the impact of Vaccine utilization and wastage in the Public Health Facilities.*

Material and Methods:

This cross-sectional study used a questionnaire to assess injection safety practices developed by the EPI health team in Banjul under ARIVA Consultant. Three questionnaires are applied to cover the three levels of the health system.

The sampling method uses three-sample frames, one at the Central level, one at the Divisional level, and one at the Public Health Facility level. At the Central Level, the EPI Division staff handled the survey. At the Divisional level, a complete census was performed including all of the six Health Divisions in the country. At the peripheral level, a random sample was performed using as sample unit Public Health Facilities. From 48 Public Health Facilities listed, we randomly drew 18 that represent 37.8 percent of all the Public Health Facilities.

Finally our sample was composed of: one structure in the Central level, the six Health Divisions and 18 Public Health Facilities at the local level. In all, 25 structures were involved in the study.

Three specific questionnaires were built during a workshop with the EPI teams and the coordinator/investigator. Six teams were trained for data collection at the Divisional level where the questionnaire was tested. The data collection lasted five days from May 24th 2004 to May 28th 2004.

Six interviewers, six supervisors and six drivers completed the survey under the coordinator's supervision. Data was entered using EPI info 6.04. The study cost was paid by the CREDES through out CATR/ARIVA Project in Burkina Faso.

Results:

The EPI service, the six Health Divisions and 18 Public Health Facilities were visited. They represent 37.8 percent of the total health structures in the country. Adherence in Policy Injection Safety in the health structures for "One Needle – One Syringe" was applied in all Health Divisions and in 88.6 percent of the Public Health Facilities. At the time of the study, we found adequate equipment and material supplies at the Central level. There was a sufficient quantity of AD Syringes for the all year, a quantity of Mixer Syringes that should cover six months of immunization services, and a large number of Safety Boxes that should cover more than one year of immunization activities. This amount of AD Syringes at the Central level represents 16 percent at the Divisional level and 4 percent at the Public Health Facility level. For Mixer Syringes, the proportions were respectively 12 percent and 15 percent. For Safety Boxes, we there were respectively 40 percent and 3 percent. This means, there was not a fair distribution of material and equipment among the Central level, the Divisional Level and the Health Facility level. But at any level, AD Syringes were available in 90 percent of Health Facilities and 100 percent in the Health Division. However, 66.7 percent of Health Division and 55.6 percent of Public Health Facilities lack Mixer Syringes. Shortage duration of these devices might take longer than one month in 72 percent of cases in the Public Health Facilities. AD Syringes shortage might also last more than one month in these structures. On the other hand, shortage of Safety Boxes was very uncommon, 83.3 percent of the Public Health Facilities had these devices. Nevertheless, most of the Health Divisions did not have or receive complete kit material or comprehensive equipment for immunization (Needles, Syringes, Safety Boxes together). At least, 61 percent for both Health Divisions and Public Health Facilities had a scarcity of global equipment or material for injection safety. However, there was a craze for high utilization of Safety Boxes because 90 percent of health workers were familiar with using Safety Boxes during clinics. Only 16.6 percent of Public Health Facilities had incinerators and more than 78 percent were still burning used needles and syringes.

All the Health Division staff had already been trained in injection safety. Nevertheless, 33.3 percent of health workers in the Public Health Facilities were not trained yet. Supervision activities including injection safety practice were regular each month in almost all Health Divisions, 83.3 percent focused their activities in this area. This activity shut down in the Public Health Facilities where almost 50 percent of them were not regularly supervised in injection safety practice.

Conclusions: The results of this study suggest that there is an urgent need to implement the strategic plan of action for safety injection practices in The Gambia. This plan should focus its main action on: 1°) Sufficiently supplying Public Health Facilities in material and equipment needed to insure injection safety practices, 2°) promoting communication strategies and health behavior models favorable to injection safety, 3°) advocating government and partners to built incinerator in the Public Health Facilities.

I INTRODUCTION

1.1 Generalities

Located on the Western Coast of Africa, The Gambia extends inland from the Atlantic for about 320 km along the banks of the River Gambia, with widths varying from 24 to 48 km, covering an estimated area of 11,000 sq.km located in the Sahel region, it is surrounded on three sides (east, south, and north), by The Republic of Senegal and on the west by the Atlantic Ocean. The country is also divided into 2 equal halves, namely the North and South banks, by the River Gambia, which runs from the Futa Jallon highlands in the Republic of Guinea to the Atlantic Ocean. It lies between latitudes 13 and 14 degrees North. The Gambia has a short rainy season, lasting from June to October, during which time rainfall ranges from 850 to 1,200 mm. Over the last twenty years, The Gambia has been hit by a rapid rate of desertification and deforestation, partly due to excessive land use, the destruction of vegetation, erosion of beaches and increase in human livestock population.

A Secretary of State (SOS) heads the health service for Health and Social Welfare assisted by a Permanent Secretary, two Deputy Permanent Secretaries and the Director of Health Services (DHS).

The health care system of The Gambia follows the primary health care strategy and is organized into three levels –primary, secondary, and tertiary. The primary levels provide for initial care and preventive action through a network of village health posts, linked through key villages and staffed by Villages Health Workers (VHWs) and Traditional Birth Attendants (TBAs) supervised by Community Health Nurses (CHNs). This level is the first point of contact for people seeking health care. At this stage 492 health posts are available including 16 dispensaries and 145 outreach stations. The secondary level, which provides for procedures less complicated than the tertiary, has a network of major and minor health centers, and dispensaries with more specialized staff and equipment. It provides for routine preventive and curative services and some medical, surgical interventions. This intermediate level is composed of 36 health centers. The tertiary level, with 4 Government referral hospitals, provides for more specialized services and interventions and is intended to function as a referral service for the secondary level. In addition there are 7 NGO hospitals and 13 private clinics.

It is estimated that about 80 percent of the population lives within 7 km of a Health Facility and 80 percent of the villages have a primary health care program.

The Gambia is divided into 7 administrative divisions comprising five rural and two urban administrative areas (Kanifing and Banjul).

To achieve decentralization, the country is divided into 6 Health Divisions administrated by Divisional Health Teams (DHTs): Western Health Division, Lower River Health Division, North Bank East Health Division, North Bank West Health Division, Central River Health Division, and Upper River Health Division. Divisions are subdivided into primary health care (PHC) villages and key villages. There are 490 Primary Health Care villages and 69 key villages.

According to the latest census of demographic statistics, The Gambia population is up to 1.4 million inhabitants. By year 2005, it will reach 1.7 million, with an annual growth rate of 4.2 percent. Almost 60 percent of the population lives in rural areas with women representing 51 percent of the crude population. The density of the population is approximately 124 persons per square kilometer, the highest population density in the world. At the present trend, this population is expected to double in the next 16 to 17 years. This is a result of high fertility rate of 6.04 births

per women and a low infant mortality rate at about 84 per 1,000 live births. (The average in the Sub Saharan countries is 91 per 1,000 live births).

The age distribution of the population shows a predominance of youths. Nearly 45 percent of the population is below 15 years of age and 19 percent between the ages of 15-24, according to the 1993 census.

The average life expectancy at birth is about 53 years, with 52 for the male and 55 for the female.

The crude birth rate is 46 per 1,000. The Gambia has a crude mortality rate of 19 per 1,000 in 1993 census.

The Infant Mortality Rate and Under-Five Mortality Rate declined from 217 and 290 per 1,000 respectively in 1973 to 167 and 260 per 1,000 live births in 1998. Infant's survival is highest in Banjul and Kanifing areas and lowest in the eastern part of the country.

The leading causes of death are Malaria, Acute Respiratory Infection, Diarrhea and Malnutrition.

The maternal mortality rate is estimated at 7.3 per 1,000 live births.

The Literacy rate of the population aged 10 and above has increased from 26 percent in 1985 to 37 percent in 1998. Males are more educated than females. Statistics shows that 54 percent of the male population aged 10 and above are educated as opposed to 26 percent of the female population.

The level of education is also low. Boys spend less than 6 years in school and girls spend about 4 years in the education system.

Public educational expenditures are growing at an average rate of 9 percent. Basic education received 56 percent of education expenditure and secondary education received 10 percent. Development expenditure on education averaged 31 percent of the total budget between 1990 and 1996.

In 2002, personnel health care expenditures accounted for 25 percent of the total amount of health expenditures. The best increase was in 2001 with 28 percent. Public programs contributed 13.6 percent of the funding for health care.

Government plays a major role in planning, directing, and financing health services in The Gambia.

1.2 Justifications

European Union under the ARIVA Project encompasses a strong commitment to contribute to interventions that reinforce the fight against communicable diseases. As a result the ARIVA scope aims to contribute to a sustainable improvement of high immunization coverage for diseases targeted by the Expanded Program on Immunization.

In addition the ARIVA Project has a major concern with contributing and facilitating particularly vaccine supply and demand in the Public Health Facilities as well as boosting immunization routine in these structures.

As part of its program for high rate coverage among EPI target population, quality and injection safety practices become a stake and a major concern as well as a great challenge specially when considering the risk of HIV/AIDS and Hepatitis B infection for patients, medical staff and the community during injection practice activities or through out soiled vaccine waste materials.

Moreover most EPI reviews show a non-generalization of AD Syringes in routine immunization, a lack of incinerators in health center, an inadequate availability and utilization of Safety Boxes during vaccination activities and the practices of using sterilized syringes are mostly common in routine vaccination.

Studies related to injection safety were conducted in countries having support from CATR/ARIVA but putting in practice recommendations arisen from these studies have not yet been implemented.

So an assessment is needed to see how far these recommendations are been carrying out in the all levels of the health structure in The Gambia

II OBJECTIVES

2.1. Overall Objectives:

The general objective of the study is to assess the practices of the recommendations from the study on injection safety done in The Gambia by April 2001 and supported by CATR/ARIVA. The issue is to know how far were applied and implemented recommendations by the Health Authorities and the health workers in the country.

2.2. Specific objectives

- To confirm if the National Health Authorities validated the Injection Safety Practices study conducted in 2001 in The Gambia under CATR/ARIVA Project.
- To examine if a strategic plan of action or policy for injection safety was built according to recommendations from the April 2001's National Survey on Injection Safety.
- To check the implementation of plan of action for injection safety particularly on a regular basis practices.
- To check the availability of sufficient injection material and supply in the health structures.
- To verify vaccine waste processing and management in public health structures (Safety Boxes incinerators).
- To check the impact of waste management of vaccine in the Public Health Facilities.

III MATERIAL AND METHODS

1. Sampling Methodology And Sample Frame Study

The sample included the six Health Divisions that constitute the area of the study.

At the Central level, only EPI services were targeted for the study because of the special purpose of the survey. At the Divisional level all the six Health Divisions were involved in the survey. At the Health Facility level, a random sample was performed using an exhaustive list of all Public Health Facilities.

2. Sample Size

At the Central Level, only EPI Service was involved in the study.

At the Divisional Level, we did a complete census including all the six Health Divisions in the country.

At the Public Health Facility level, we generated a comprehensive list of all the forty-eight (48) Public Health Facilities and randomly selected eighteen (18) of them. This random selection represented 37.8 percent of all the Public Health Facilities.

Our sample size was finally composed of:

- The EPI service at the Central Level.
- The six (6) Health Divisions
- Eighteen (18) Public Health Facilities.

Finally the study was concerned with 25 health structures around the country.

3. Study Design

We conducted a cross-sectional study, from May 21st to June 1st 2004, at the Central, Health Divisional and Public Health Facility levels, using a specific questionnaire at each level.

Questionnaires were drawn from the specific recommendations of the National Survey In Injection Safety conducted in April 2001 in The Gambia.

At each level, the global questionnaire was composed of three parts:

- Policy and strategic plan for Injection Safety Practice.
- Equipment and material/wastage.
- Training and supervision in Injection Safety Practice.

4 Research Method Description

The team of interviewers performed discussions with EPI storekeepers about the delivery, storage and distribution of vaccine supplies from the manufactures to Public Health Facilities.

They also asked about policy and strategic action for Injection Safety Practices.

They reviewed vaccine inventory records, registers, and ledgers for vaccine and material supplies.

The teams also visited fields in the Health Divisions and Public Health Facilities where the study was carried out.

At the Central and the Health Divisional levels, interviewers teams checked vaccine storage and supplies and material, they asked questions about National Injection Safety Policy and material supplies for injection practice, plan of action and its implementation, training and supervision.

At the Public Health Facilities, questions were oriented about adhesion to Policy, quantity of material and equipment received from the hierarchical level, disposal for waste management vaccine, training and supervision.

Data was collected in these health structures from May 24th to May 28th 2004 using a specific questionnaire per level.

A team from the EPI service at the national level and a team from the Health Divisional level conducted the interview.

5 Criteria Of Inclusion Or Exclusion

All the Public Health Facilities were eligible for the study as well as and private clinics within the Health Divisions. At the National level, we excluded all services, which did not deal with immunization activities.

Six teams were composed to conduct the study with three drivers around the fieldwork. In other words, each team had four Health Facilities to visit with a driver. In total eighteen (18) Public Health Facilities were visited, six (6) Health Divisions interviewed and the EPI service inspected.

A consultant from FED/ARIVA coordinated the study.

6 Supervision

Six supervisors from the Central level (EPI services) were in the field to supervise the survey.

7 Data Analysis.

Data was entered and analyzed using Epi-Info Software (Version 6.04b) and Excel.

We computed frequencies cumulative frequencies, means, and standard deviations for all observations using as denominator the total of health structures involved in the study

IV RESULTS

From May 25th to May 28th 2004, The EPI Service, six (6) Health Divisions and Eighteen (18) Public Health Facilities were visited to see how far the recommendations about injection safety were followed since the last National Survey in 2001.

The EPI Service, the six Health Divisions and 18 Public Health Facilities had been visited, that represent 37.8 percent of the total health structures in the country. (Appendix 2).

4.1 Adhesion To Injection Safety Policy

Adhesion to Policy Injection Safety in the health structures for “One Needle – One syringe” was applied in all Health Divisions and in 88.6 percent of the Public Health Facilities. For a total quantity of 465,000 doses of vaccine, the study numbered a total of 957,600 Auto Disable Syringes (AD Syringes) available at the Central level. (Appendix 1: Tables 1 and Table 2).

At the Health Division level any structure run out for stock of AD Syringes, however 66.7 percent of them lack of Mixer Syringes and 33.3 percent lack of Safety Boxes. (Appendix 2: Table 3).

Nevertheless, high utilization of Safety Boxes was well known because 90% of health workers were familiar with employing Safety Boxes during clinics (Appendix 2: Table 9).

4.2 Equipment And Material Shortage

At the Public Health Facility level, stock shortage was observed for AD Syringes in 11.1 percent, Mixer Syringes in 56.6 percent and Safety Boxes in 33.3 percent of cases. (Appendix 2: Table 4).

AD syringes shortage was uncommon in Public Health Facilities but Mixer Syringes shortage often happened and might take longer than one month in 72 percent of cases. (Appendix 2: Table 5 and Table 6).

Fortunately, Safety Boxes were widespread in Public Health Facilities (83.3 percent, Appendix 2: Table 7).

Nevertheless, most of the health structures did not receive either complete kits material or had comprehensive equipment for immunization (Needles, Syringes, Safety Boxes together). At least, 61 percent for both Health Divisions and Public Health Facilities experienced stock shortage of global equipment or material for injection safety. (Appendix 2: Table 8).

4.3 Waste Management Vaccine And Material Supplies.

Only 16.6 percent of Health Facilities had incinerators while more than 78 percent were still burning used needles and syringes. (Appendix 2: Table 10).

4.4 Training And Supervision Activities.

All the Health Divisional staff level had already been trained in injection safety. However, 33.3 percent of health workers in the Public Health Facilities had not yet been trained.

Supervision activities including injection safety practices occurred regularly each month in almost all Health Divisions where 83.3 percent focused their activities in this area. In contrary, supervision activities shut down in Public Health Facilities where almost 50 percent were not regularly supervised in injection safety.

V DISCUSSIONS

The Gambian Government has a strong commitment to enhance Injection practice policy towards health workers. The EPI staff has already developed a five –Year Strategic Plan of action for injection safety practice from 2002 to 2006. Since then, this study has revealed that AD Syringes were available and widely spread and used in all Health Divisions and in 90 percent of Public Health Facilities. These results are similar to the findings of the national survey conducted in injection safety in 2001 in The Gambia.

We found adequate equipment and material supplies at the Central Level. The current supply was above 957,600, a sufficient quantity of AD Syringes that should cover the whole year, keeping in mind that the need for the present year does not exceed 693,999 AD Syringes according to the plan of action (1).

However, there was a large discrepancy between .the quantity of Mixer Syringes found and the expected need for the current year as specified in the plan of action (1) at the Central level. The decrease is up to 95 percent. So, shortage for Mixer Syringes remains a major problem in injection safety practice.

Comparing the supply and demand for Safety Boxes, we noticed that the existing number of Safety Boxes exceeded the expected need for the present year by about 85 percent according the source (1).

Considering the distribution of the AD Syringes it represented 15.6 percent at the Divisional level and 4 percent at the Public Health Facility level. For Mixer Syringes, the proportions were respectively 12 percent and 15 percent. For Safety Boxes, there were respectively 40 percent and 3 percent. Consequently, there was not a fair distribution of material and equipment between the

Central level, the Divisional level and the Health Facility level. Consequently shortage was frequent in these structures.

Today 40 percent of the Public Health Facility has complete kit for immunization safety practice. That means much progress has been made because at the last survey in April 2001, only 17 percent had received complete material for injection.

The construction of incinerators has not improved because the percentage has remained at the same level since the assessment of April 2001.

In addition there was a strong need for training and supervision of the new staff in the Health Facilities in injection safety practice for more than 70 percent of the health workers.

Finally injection safety was not totally guaranteed in all health structures in The Gambia. Exposition to reutilization of used syringes and needles or injuries by these devices still exist in the community or among the health workers.

As many cross-sectional studies of this type, the survey may include some bias that can be linked to the questionnaire, the interpretation of interviewers or cultural consideration that was not corrected on time.

VI RECOMMENDATIONS

For the Government

In order to ensure sustainable policy for injection safety in The Gambia, the Five Year Strategic Plan for Injection Safety, 2002-2006 needs to be implemented.

The Government should also advocate a strong commitment for injection safety practice in the community health workers.

For the EPI:

- To insure equitable dispatching of materiel and equipment of injection safety in the Health Division and Health facilities.
- To supply sufficient comprehensive kit equipment and material for Health Divisions and Public Health Facilities.
- To develop and promote communication strategies for health model behavior to medical workers.
- To advocate Government and partners to built incinerators in the main health centers.
- To apply injection safety Practices and procedures in all the health system.
- To appropriately train staff in the Public Health Facilities.
- To boost supervision activities including injection safety practices in the Health Facilities.

For the partners

- To contribute to the implementation of the Five –Year Injection Safety Strategic Plan of Action.
- To participate to the health policy action plan for injection safety in The Gambia.

VII CONCLUSION

At the end of this study we expected to see improved performances in injection safety practice, sustainability of available equipment and material for injection and waste management of used injection material.

What we know is that the prevention of infection and wastage in immunization practice constitute a strong commitment for The Gambia.

The study reveals that there is a national policy strengthened by a five-year plan of action for injection safety practice.

Although the plan of action is not being implemented, many efforts have been made to provide supplies for injection safety. Today at least 40 percent of the Public Health Facilities have comprehensive kits to deal with injection safety practice.

However, the survey enlightens that there are still supplying problems in material and equipment for injection safety. For example, shortage is more relevant in providing Mixer Syringes in the health structures.

In addition we find many new staffs in the work field that have not yet been trained or supervised.

The factor that forecasts a good environment to apply injection safety practice is that health workers adhere to the policy in this matter and use Safety Boxes during clinics.

Therefore the construction of incinerators will probably help to solve the management of used syringes and needles on a regular basis because Public Health Facilities use them when they are available.

IX REFERENCES

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- 3- Republic of The Gambia. Injection Safety Plan of The Expanded Program on Immunization, 2002-2006.

VIII LIST OF APPENDIX

Appendix 1: Tables

Table 1: Adhesion In Policy Injection Safety In The Health Structures: “One Needle-One Syringe”.

HEALTH STRUCTURES	Number of HD	%	95% CI
Health Divisions adhering to injection safety	6	100	54.1-0.0%
Health Divisions not adhering to injection safety	0	0	0
TOTAL	6	100	
	Number of PHF		
Public Health Facilities adhering to injection safety	16	88.9	65.3-98.6%
Public Health Facilities not adhering to injection safety	2	11.1	1.4-34.7%
TOTAL	18	100	

Table 2: Adequate Equipment And Materials Supplies In The Public Health Structures.

Supplies	Central Level	Health Division Level	Pubic Health Facility Level
AD Syringes	957,600	145,200	38,405
Mixer Syringes	1,800	2,275	2,729
Safety Boxes	54,140	22,150	1,705

Table 3: Shortage Of Equipment And Material At The Health Divisional Level.

Supplies	Number of HD	Percentage
AD Syringes	0	0
Mixer Syringes	4	66.7
Safety Boxes	2	33.3

Table 4: Shortage Of Equipment And Material At The Public Health Facility Level

Supplies	Number of PHF	Percentage
AD Syringes	2	11.1
Mixer Syringes	10	55.6
Safety Boxes	6	33.3

Table 5: Shortage Duration For AD Syringes At The Public Health Facility

Time of shortage	Number of PHF	Percentage	Cumulative frequency
Never	15	83.3	83.3
One month	2	11.1	94.4
More than 2 months	1	5.6	100

Table 6: Shortage Duration For Mixer Syringes At The Public Health Facilities

Time of shortage	Number of PHF	Percentage	Cumulative frequency
Never	8	44	44
One month	5	28	72
More than 2 months	5	28	100
TOTAL	18	100	

Table 7: Shortage Duration For Safety Boxes At The Public Health Facilities

Time of shortage	Number of PHF	Percentage	Cumulative frequency
Never	15	83.3	83.3
One month	2	11.1	94.4
More than 2 months	1	5.6	100
TOTAL	18	100	

Table 8: Health Structures Receiving Complete Injection Material And Equipment (Needles, Syringes And Safety Boxes Together)

HEALTH STRUCTURES	Number of HD	Percentage	95% CI
Health Divisions which receive complete material injection at once	2	33	4.3-77.7
Health Divisions which do not receive complete material at once	4	66.7	22.3-95.7
TOTAL	6	100	
	Number of PHF		
Public Health Facilities which receive complete material at once	7	38.9	17.3-64.3
Public Health Facilities which do not receive complete material at once	11	61.1	37.7-82.7
TOTAL	18	100	

Table 9: Using Safety Boxes During Clinics

Public Health Facilities	Number of PHF	Percentage	95% CI
Facilities using Safety Boxes in clinics	16	88.9	65.3-98.6
Facilities using Safety Boxes in clinics	2	11.1	1.4-34.7
TOTAL	18	100	

Tables 10: Mode Of Disposal Of Used Needles And Syringes At The Public Health Facilities

Types of disposal	Number of PHF	Percentage	95% CI
Burning	14	7.8	52.4-93.6
Incinerator	3	16.7	3.6-41.4
Transport for off site	1	5.6	0.1-27.3
TOTAL	18	100	

Tableau 11: Training Activities On Injection Safety Practices In The Health Services

HEALTH STRUCTURES	Number of HD	Percentage	95% CI
Health Divisions having training activities in injection safety	6	100	54.1-0.0
Health Divisions not having training activities in injection safety	0	0	0
TOTAL	6	100	
	Number of PHF		
Public Health Facilities having training activities in injection safety	12	66.7	41-86.7
Public Health Facilities not having training activities in injection safety	6	33.3	11.3-59
TOTAL	18	100	

Tableau 12: Supervision Activities On Injection Safety Practice

Supervision activities	Number of H D	Percentage	95% CI
Last month	5	83.3	35.9-99.6
Two months ago	0	0	
Over three months ago	1	16.7	0.4-64.1
TOTAL	6	100	
Period	Number of PHF	Percentage	95% CI
Last month	11	61.1	35.7-82.7
Two months ago	1	33.3	13.3-59.0
Over three months ago	6	5.6	0.1-27.3
TOTAL	18	100	

Appendix 2: Health Divisions And List Of Public Health Facilities Visited

Level	Structures visited
Central	Central EPI Vaccine Store
Western Division	Leman Street Clinics
	Gunjur Minor Health Center
	Brikama Health Center
	Bwaim Hospital
	Fajikunda Health Center
	Sukuta Health Center
Lower River Division	Bureng. Health Center
	Kwinella Health Center
North Bank West Division	Essau Major Health Center
	Kerewan Health Center
	Illiassa Health Center
	NGange Sanjal Health Center
Central River Division	Bakau Minor Health center
	Kudang Health Center
	Dankunku Health Center
Upper River Division	Gambissara Health Center
	Baja Kunda Dispensary
	Fato minor Health Center

Appendix 3: The Questionnaires

NATIONAL INJECTION SAFETY ASSESSMENT AT THE CENTRAL LEVEL

May 21st - June 1st 2004

Data collection formula for the Central Level

Name of the interviewee -----

Cadre of staff interviewed

Date of interview ____/____/____

NATIONAL POLICY OBSERVATION ABOUT INJECTION SAFETY (SUPPLY AND DEMAND, PLAN OF ACTION IMPLEMENTATION)

1-1	Is the National Policy on safe injection being implemented?	Yes	No	
1-2	Does the Government support the provision of safe injection materials?	Yes	No	
1.3 If No, what plans do you have?				
1-4	Do you adhere to the policy of one needle-One syringe for one injection?	Yes	No	
1-5	Do you have adequate supply of the following? AD Syringes, If yes how much? Mixer syringes, If yes how much? Safety boxes, if yes how much?	Yes Yes Yes Yes	No No No No	AD Syringes_____ Mixer Syringes_____ Safety Boxes_____ /
1-6	Do you receive Needles and Syringes and Safety Boxes together?	Yes	No	
1-7	Do you conduct training on EPI activities, which include safe injection practices?	Yes:	No	

Annexe 3: The Questionnaire

NATIONAL INJECTION SAFETY ASSESSMENT AT THE HEALTH DIVISIONAL LEVEL

May 21st - June 1st 2004

Name of the interviewer -----

Cadre of staff interviewed

Date of interview ____/____/____

NATIONAL POLICY OBSERVATION ABOUT INJECTION SAFETY (SUPPLY AND DEMAND, PLAN OF ACTION IMPLEMENTATION)

1-1	Do you adhere to the policy of" One needle-One syringe for one injection"	Yes	No	
1-2	Do you have adequate supply of the following? AD Syringes, If yes how much? Mixer Syringes, If yes how much? Safety Boxes, if yes how much?	Yes Yes Yes Yes	No No No No	AD Syringes____/ Mixer Syringes____/ Safety Boxes____/
1.3 If No, why?				
1-4	Do you receive Needles and Syringes and Safety Boxes together?	Yes	No	
1-5	Do you receive training on EPI activities, which includes safe injection practices?	Yes	No	
1-6	When were you last supervised on EPI activities?	Last month____/ Two months ago____/ Over three months ago____/ Can't remember____/		

Appendix 3: The Questionnaire

NATIONAL INJECTION SAFETY ASSESSMENT AT THE HEALTH FACILITY LEVEL

May 21st - June 1st 2004

Name of the interviewer -----

Cadre of staff interviewed

Date of interview ____/____/____

NATIONAL POLICY OBSERVATION ABOUT INJECTION SAFETY (SUPPLY AND DEMAND, PLAN OF ACTION IMPLEMENTATION)

1-1	Do you adhere to the policy of One needle-One syringe for one injection	Yes	No	
1-2	Do you have adequate supply of the following? AD Syringes, If yes how much? Mixer syringes, If yes how much? Safety boxes, if yes how much?	Yes Yes Yes Yes	No No No No	AD Syringes____/ Mixer Syringes____/ Safety Boxes____/
1-3	Have you ever had a shortage of the following? AD Syringes, If yes how much? Mixer Syringes, If yes how much? Safety boxes, if yes how much?	Yes Yes Yes Yes	No No No No	AD Syringes____/ Mixer Syringes____/ Safety Boxes____/
1.4	if Yes for how long?			
1.5	Do you receive needles and syringes and Safety Boxes together?	Yes	No	
1-6	Do you use Safety Boxes during clinics?	Yes	No	

1-7	What is the mode of disposal of used needles and syringes?	Burning_____/	
		Incinerators_____/	
		Burying_____/	
		Others, specify_____/	
1-8	Do you receive training on EPI activities, which includes safe injection practices?	Yes	No
1.9	If Not, Why not?		
1-10	When were you last supervised on EPI activities?	Last month_____/	
		Two months ago_____/	
		Over three months ago_____/	
		Can't remember_____/	

Appendix 4: The Budget

		Quantity	Cost	Total cost
Logistic	Gas (cars for supervisors)	1,040	400	392,000
	Car Rent	9	50,000	450,000
	Sub Total 1			842,000
Personnel	National consultant	12	25,000	300,000
	Supervisors (HD Focal point)	12	15,000	180,000
	Interviewers (PHF Focal point)	12	15,000	180,000
	Sub Total 2			660,000
Feedback	Reproducing/Copy of document /Stationery	Forfeit	71,000	71,000
	Sub-Total 3			71,000
All				1,573,000