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COMPREHENSIVE REPORT OF INJECTION SAFETY / HEALTHCARE WASTE MANAGEMENT ASSESSMENT CONDUCTED ACROSS THE FIVE PROACT FOCUS STATES

BACKGROUND:

Used injection needles and healthcare waste is dangerous, if not disposed correctly; persons directly or indirectly dealing with or handling such needles and waste can be injured or infected, whether they are healthcare providers or reside within the communities. A good injection safety and healthcare waste management policy and practice is thus very important for effective comprehensive healthcare delivery. It is in a bid to promote safe handling of needles, sharps and healthcare waste that the US Government funded the AIDSTAR Project to reduce unsafe and unnecessary injections and protect health care providers from HIV and other blood-borne pathogens. This intervention was in line with the top priority of Nigeria's Federal Ministry of Health's (MOH), infection prevention and control (IPC) measures to protect patients and health care workers from infections inside a clinical setting.

AIDSTAR-One provided technical assistance to the Government of Nigeria and PEPFAR implementing partners to carry out three well-demonstrated prevention strategies: Injection safety and health care waste management (IS/HCWM) - Medical transmission, Prevention of mother-to-child transmission (PMTCT) and Safe male circumcision (SMC). AIDSTAR-One/Nigeria's activities included: Training and capacity building, Commodity management, Health care waste management (HCWM), Advocacy and behavior change communication (BCC) and Policy environment.

Prevention of HIV transmission has remained a core component of the ProACT Project from its inception in 2006. The core of prevention activities had focused on promotion of behavioral interventions aimed at reducing risk of sexually transmitted HIV infection, with little attention to biomedical prevention. With shift in USAID prevention priorities away from promotion of reduction of sexual transmission of HIV, MSH ProACT leadership felt the need to explore the opportunity presented by this vast aspect of HIV prevention. After a few consultative meetings in-house (MSH) and between MSH staff and USAID Technical Leads, it was agreed that a needs assessment of current injection safety, waste management and blood safety practices would be required to kick start the process of designing 'pilot interventions' which if properly implemented will ably demonstrate MSH capacity for effective implementation.

Objectives of the Assessment - The objectives for the assessment included:

1. Identify HCWM procedures and practices that are not consistent with health and environmental guidelines.
2. Observe gaps in healthcare waste management, injection and blood safety practices and set priority actions in order to tackle the most sensitive problems
3. Together with stakeholders, agree on appropriate and sustainable technologies to diagnose TTIs, treat and dispose of health care waste (Sharps, Infectious waste, Expired ARVs, Reagents and Test kits) as well as disposal of blood and blood products
4. Support the analysis of current HCW challenges and develop strategies for safe management of HCW in all supported States
5. Identify policy gaps and make strategic recommendation to State government for improvement

Preparations for the Needs Assessment - The ProACT Prevention and Laboratory Teams held several meetings to plan for this assessment. The team agreed that in order to ensure that states are aware of this new MSH shift in strategic thinking and focus, the state teams led by the STLs should identify the relevant stakeholders in their states and pay them advocacy visits to solicit support, cooperation, buy-in, and commitment. The advocacy visits also served as medium for preparing the state stakeholders for the arrival of the Abuja Country Office staffs for a stakeholders meeting and eventual conduct of the facility assessments. Key Stakeholders that were reached by the state teams included; heads of Government Ministries and Parastatals, such as the Ministry of Environments, Environmental Protection Agencies, Ministries of Health, the States Agencies for the Control of AIDS, Urban Development Agencies, and Health Facilities.

Assessment Tool Deployed – Mr. Livinus Ibiang (AD Lab), proposed a WHO adapted checklist for assessing the current injection safety, blood safety and waste management practices which was adopted by the team for use in the assessment. (Sample of tool is attached as Annex X)

Team Composition / Facilities visited with dates – Three (3) teams were constituted to conduct the assessment and it was agreed that in each state a minimum of 2 facilities be assessed and visits should cover service points such as GOPD, Theatre, Maternity wards, NHIS clinics. The entire assessment exercise spanned from 4-8 August, 2014 (See Table 1) for facilities visited with dates.

Table 1: Team composition / Facilities visited with dates

S/No	Name	State	Facility Visited	Dates
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1	Amaechi Okafor &	Niger	General Hospital, Minna	4 – 8 August 2014
			Federal Medical Center, Bida	
			General Hospital Suleja	
2	Micael Umoren	Kebbi	Federal Medical Center, Birnin Kebbi	
			Sir Yahaya State Specialist Hospital, Birnin Kebbi	
3	Uzono Levi & Eucharua Iwe	Kwara	1. University of Ilorin Teaching Hospital	
			2. State Specialist Hospital, Sobi	
4	Livinus Ibiang	Sokoto	1. Sokoto Specialist Hospital	4 – 6 August 2014
			2. General Hospital, Dogon Daji	
5		Zamfara	1. Federal Medical Center, Gusau	7 – 8 August, 2014
			2. Yarima Bakura Specialist Hospital, Gusau	
			3. Dr. Kaima Primary Health Center	

1-Day Stakeholders Meeting - Each team also facilitated a meeting of the relevant stakeholders, worked-out the detail logistics for the facility assessments with the stakeholders and ensured the full participation of the relevant stakeholders.

SUMMARY OF FINDINGS:

Generally stakeholders acknowledged that the current injection safety and waste management practices were below average and expressed willingness to support and promote interventions. Also most facilities have an infection control committee (some none functional), there was willingness by facility management to adopt best practices, but in most places, few staffs have been trained, supply of safety boxes was inadequate and generally implementation of universal precaution was poor. Furthermore, many facilities had inadequate number of waste handlers, incinerators were non-functional and often located close to residential areas, waste was not properly segregated, color coded bio hazard bags were lacking and some health workers still practiced recapping of used syringes. Also very few facilities had SOPs/ guidelines on injection safety, waste management and Non availability of SOPs/ guidelines on injection safety, waste management, most staffs especially the waste handlers were not vaccinated for hepatitis B, most of those who were vaccinated did not complete the dose. Knowledge of Post Exposure Prophylaxis was generally low.

REPORT OF FINDINGS FROM KWARA STATE:

General Findings –

In Kwara state the general findings were that retractable and self-destruct needle and syringe not in use, there is no injection safety policy in place, incinerator available at UITH and functional, but that available at Specialist Hospital Sobi was not functional, in both facilities waste segregation was a serious challenge, with dump sites located close to residential buildings. Last but not the least blood banking services was non-functional.

Highlights of findings from Kwara State

1. Stakeholders Meeting - The stakeholders meeting was attended by a total of 12 persons including the Director Ministry of Environment, Program Manager KWASACA, SAPC, Rep. of CMD Kwara state Specialist Hospital, the MSH STL and other MSH staffs.(Attendance list is attached). The meeting discussed; how MSH could facilitate collaboration between general and hospital waste management among relevant state actors, the need for an assessment and prioritization of injection safety and waste management practices in Kwara state, the need for the assessment of blood safety practices and how to foster public-private partnership in the area of waste transportation, management, and utilization and conversion to other uses. The key output from this meeting was the establishment of contact between relevant stakeholders especially between ministry of environment and the ministry of health.



2. Assessment of University of Ilorin Teaching Hospital:

Everyone that attended the stakeholders meeting participated in the assessment visit to UITH. Sites within the facility visited include; the incinerator/waste site, the General store, the Blood bank, the injection/nurses station. The key findings include:

- Both retractable, self-destruct and needle and syringe are being used
- There is no injection safety policy in use



- Blood banking services is commendable though VDRL is not included as a screening protocol on donor cells



3. Meeting with Director Bureau of Lands (Chairman Ad-hoc Committee on Waste Management):

This meeting was brokered by the Director Environment. Issues discussed and conclusions reached include

1. The Governor had set up an “Ad-hoc committee” to deal with the issues of waste management in the state.
2. The Committee is no longer functional.
3. It is the SSG who can recommend to the government for a State Waste Management Committee to be set up

At the end of the meeting, we were able to both establishment contact with Director Bureau of Lands (Chairman Ad-hoc committee on waste management), as well as get his commitment to facilitate a meeting with the SSG possibly of Tuesday 12August2014.

4. Assessment of Specialist Hospital Sobi:

The assessment of Specialist Hospital followed immediately after the assessment of UITH. Sites visited also included the incinerator/waste site, the General store, the Blood bank, the injection/nurses station. The Key Findings were as follows:

- Retractable and self-destruct needle and syringe not in use
- There is no injection safety policy in use.
- Incinerator available but not functional
- Waste not segregated
- Dump site very close to residential buildings

- No functional blood banking services



Figure 5: Non-functional Incinerator at SH Sobi



Figure 6: Open-Waste Dump site at SH Sobi

5. Conclusions / Recommended Next Steps:

1. Carryout an analysis of the feedback from all the participants and produce assessment report
2. Carryout training at the assessed sites.

ASSESSMENT FINDINGS FROM SOKOTO STATE:

General Findings –

In Sokoto state, the team found that there were no laboratory protocol on display, some trash cans are not layered with bio-hazard bags, no SOP for Injection safety, used blood with needles placed back in refrigerator with unused ones. Also staff not wearing safety gloves during Injection, fluid and blood transfusion, general Waste handling situation is very poor, PPE Knowledge is very low, blood banking practices is way below acceptable standards, use of rapid test kits for blood donor screening. Furthermore, it found that the revolving fund programs need strengthening to accommodate needs, injection/Blood safety practices are very poor, land fill is shallow and open to scavengers and needles not properly disposed and exposed to scavengers and passerby.

Highlights of findings from Sokoto State

1. Stakeholders Meeting

Activities commenced in Sokoto State with a stakeholders meeting. The Stakeholders briefing was to underscore the need for the activity, review the checklist to be used and obtain buy-in for purpose of rolling out the interventions. The briefing provided an opportunity for stakeholders to share experiences relating to practices in their various facilities and to learn from the experiences of the Ministry of Environment and the State Environmental Protection Board in respect of management of waste in the State. The State Ministry of Environment also provide a copy of the draft environmental bill currently

before the State House of Assembly and requested MSH review and inputs in enriching the document before its final passage. In attendance at the stakeholders briefing are the following persons.

Table 2: Attendance List for Sokoto Stakeholders Meeting

S/No	NAME	SEX	ORGANISATION	POSITION	LOCATION	PHONE NUMBER	EMAIL ADDRESS
1.	Ibiang Livinus	M	MSH	Associate Director	Abuja	08077099643	ilivinus@msh.org
2.	Daniel Nanbol	M	MSH	LSS	Sokoto	08056897101	Nanboldaniel@msh.org
3.	Suleiman Tijjani Muhammad	M	MSH	HPS	Sokoto	08077099630	tsuleiman@msh.org
4.	Sani Yakubu G	M	HSMB Sokoto	Assistant Director	Sokoto	08134722554	saniyakubu@yahoo.com
5.	Isa A. Shuni	M	SOSACAT	Comm. Officer	Sokoto	08039678426	isaashuni@yahoo.com
6.	Hafsat Murtala	F	Min. Of Environ.	Z.O	Sokoto	07033073114	hasmu@gmail.com
7.	Umar Bello Alkamawa	M	SOSACAT	Director HIV/AIDS	Sokoto	08036366139	alkammawa66@gmail.com
8.	Dr. Bello Lawal	M	SHS	CMAC	Sokoto	08035861246	drlawalbellon@yahoo.co.uk
9.	Bako Sahabi	M	SOSACAT	Director TB Control	Sokoto	08036930601	
10.	Mu'azu A. Suka	M	Min. Of Environ.	Dept. Director	Sokoto	08036395664	
11.	Suleiman T. Ibrahim	M	MSH	STL	Sokoto	08077099640	suleimanibrahim@msh.org
12.	Shehu U. Tureta	M	SMOH	DMS(Rep. Perm Sec)	Sokoto	08036251303	Shehutureta07@yahoo.com
13.	Shuaibu Ahmed	M	ILSWACI	Accountant	Sokoto	08036394909	shuaibuahmada@gmail.com

Below table 3; are observations made in the course of the Assessment.

Table 3: Sokoto Observations

Facility Name: Specialist Hospital Sokoto, Sokoto State		Facility Type: State Tertiary		Operated By: State Government	
Units Assessed	OBSERVATION/ISSUES IDENTIFIED	ACTION POINT/RECOMMENDATIONS	PERSON RESPONSIBLE	PROPOSED TIMELINE	

LABORATORY	<ul style="list-style-type: none"> The HOD Lab was trained, and is in charge of Injection and blood safety and waste management No laboratory protocol placed Some trash cans are not layered with bio-hazard bags. No SOP for Injection safety Step-down training for new staffs pending 	<ul style="list-style-type: none"> Step –down training to other Lab. Staffs Ensure Laboratory protocols and duty rosters are placed Ensure bio-hazard bags are put to use 	<ul style="list-style-type: none"> SHS HOD with T.A from LSS and HPS. 	August – September 2014
BLOOD BANK	<ul style="list-style-type: none"> Used blood with needles placed back in refrigerator with unused ones. 	<ul style="list-style-type: none"> Isolate used blood bag giving sets from unused compartment 	Head of Blood Bank Unit	August 2014
OBSERVATION ROOM	<ul style="list-style-type: none"> Staff not wearing safety gloves during Injection, fluid and blood transfusion. Some trash cans are not layered with bio-hazard bags. 	<ul style="list-style-type: none"> T.A on basic safety precaution e.g the use of Personal Protective Equipment (PPE) and simple and regular hand washing before and after services. Ensure bio-hazard bags are put to use 	<ul style="list-style-type: none"> SHS HOD with T.A from LSS and HPS. Management of SHS, 	August – September 2014

Summary of Observations at the Sokoto State Specialist Hospital

- Waste is not segregated
- General Waste handling situation is very poor
- PPE Knowledge is very low
- Blood banking practices is way below acceptable standards
- Use of rapid test kits for blood donor screening
- Revolving fund programs need strengthening to accommodate needs

Table 4: Observations at GH Dogon Daji

Facility Name: General Hospital Dogon Daji , Sokoto State		Facility Type: Secondary	Operated By: State Government	
POINT OF VISIT	OBSERVATION/ISSUES IDENTIFIED	ACTION POINT/RECOMMENDATIONS	PERSON RESPONSIBLE	TIMELINE
ANC	<ul style="list-style-type: none"> Gloves are put to use and properly disposed They have injection safety boxes but needles are still thrown in trash cans All trash cans are not layered with bio-hazard bags. Excessive use of chase buffer on test kit by ANC nurse. 	<ul style="list-style-type: none"> T.A on basic safety precaution e.g the use of Personal Protective Equipment (PPE) and simple and regular hand washing before and after services. Ensure bio-hazard bags are put to use T.A on the appropriate use of RTK 	<ul style="list-style-type: none"> Lab HOD with T.A from LSS and HPS. CCS and CCO 	Next week

LABORATORY	<ul style="list-style-type: none"> TSHIP supports RDT and MP Test The HOD Lab was trained, and is in charge of Injection and blood safety and waste management Laboratory duty roster placed Trash cans layered with bio-hazard bags. No SOP for Injection safety 	<ul style="list-style-type: none"> Provide SOP for Injection safety The need to supply more bio-hazard bags Provide more tally cards for each consumable. (Bio-Hazard bags, gloves etc.) 	<ul style="list-style-type: none"> Lab HOD with T.A from LSS and HPS. 	August – September 2014
BLOOD BANK	<ul style="list-style-type: none"> Used bloods are safely discarded immediately due to poor electricity and idle refrigerator. 			
PHARMACY	<ul style="list-style-type: none"> Expiries not disposed at available opportunity 	<ul style="list-style-type: none"> Lias with SCMS to include among MSH expiries for disposal 	<ul style="list-style-type: none"> SCMS 	Next week
WASTE COLLECTION POINT	<ul style="list-style-type: none"> Wastes are not properly disposed into land fills Wastes are not segregated (Needles from other solid wastes) 	<ul style="list-style-type: none"> T.A on basic safety precaution e.g the use of Personal Protective Equipment (PPE) and simple and regular hand washing before and after services. Provide T.A to all units and waste disposal personnel's on Proper segregation and disposal of medical wastes 	<ul style="list-style-type: none"> Lab HOD with T.A from LSS and HPS. Management of GH dogon-daji, SMOH and Min. Of Env. 	

Summary of Observations at the General Hospital Dogon Daji

- Injection/Blood safety practices are very poor
- Waste management is a disaster
- Observed Land fill is shallow and open to scavengers
- Needles not properly disposed and exposed to scavengers and passerby
- Only one staff was seen at the ANC conducting screening, Immunization and palpation

ASSESSMENT FINDINGS FROM ZAMFARA STATE:

General Findings –

The team found leak proof containers available in YBSH but not lined, collation bins are available but not the Wheelie type, waste management is out-sourced to Private firms, Laboratory Blood bank has P24 antigen for Donor screening, hospital was rated the neatest in terms of sanitation and hygiene practices, outsourcing of hygiene and sanitation and waste management to private accounted for the general neatness of the hospital.

Highlights of findings from Zamfara State

1. Stakeholders Meeting

In Zamfara State, stakeholders in attendance as well as the facilities visited as follows

Table 5: Zamfara State List of Stakeholders

S/N	Name	Unit	Institutional Affiliation	Phone contact
1	Murtala Rabi	Laboratory	Yarima Bakura Specialist Hospital (YBSH)	08060652379
2	Abdullahi Garba	Lab	Yarima Bakura Specialist Hospital (YBSH)	08028566211
3	Garba Rabi	Ag. Director of Medical Services	HSMB	08024963352
4	Ismaila Ibrahim	Executive Secretary	HSMB	08068563032
5	Angela Duru	BGS	FMC	08035957260
6	Luba Sani	Lab	FMC	08067349685
7	Kabiru Musa		Min of Environment	08065624949
8	Yusuf Umar	Waste Mgt	Zamfara Envi Mgt Agency	08062578170
9	Dr. Bello A Moh'd	Management	YBSH	08069781998
10	Isiaka Abdullahi	Monitoring	PHCMB	08062467366
11	Umar Mustapha	Lab	FMC	08036576417

AT THE FEDERAL MEDICAL CENTER

Facility Walk Through: The team had a walkthrough across the various service delivery points in FMC, Gusau, namely General Out-Patient Clinic, Laboratory, ANC, Blood Group Serology and Chemical pathology.

At the General Out-Patient Clinic the team observed handling of waste as not consistent with national guidelines. Different waste categories were mixed, sharps, cotton wools and others were found in the same open wheel bin with consequent hazard this poses.

Discussions were held with the representative of the management at the centre towards developing waste management policies for the hospital and ensuring compliance with a view to reducing occupational risks.

At the Accident and Emergency Unit, interaction with health personnel indicated low knowledge of safety standards. However, the team observed that plastic waste bins were in use rather than the recommended pedal bin. This was also observed in all the units visited.



Figure 6: Uncovered Wheely bins at the federal Medical center Gusau

At ANC, it was gathered that while sharp boxes are in use, gloves are not used during palpation of patients. Similarly, Laboratory personnel assigned to the ANC side lab do not adhere to safety guidelines as biohazard bags are not inserted attached to work bench. Also, the work bench is not a continuous form thereby exposing staff to the risk of accidental contamination.

Gaps identified were uniformed across units. The most significant finding was the fact that the hospital has no incinerator for proper disposal of waste. This calls for prioritizing developing waste management guidelines for the hospital by management.

At the Federal Medical Center Gusau, Blood Bank had collected 1,345 blood out of which, 1,145 pints have been dispatched

AT THE YARIMA BAKURA SPECIALIST HOSPITAL

Facility Walk Through: During the visit, it was observed that efforts are being made to implement universal precautions and safety practices. The hospital was adjudged by the team to be the neatest hospital. While most waste bins are not wheeled biohazard bags are inserted to facilitate easy evacuation of waste. Similarly, safe boxes were extensively deployed in the hospital. The most noteworthy observation was the hospital's incinerator under construction which, when completed will serve, not only the hospital, but also service neighboring health centers.



Figure 7: Incinerator under Construction at the Yarima Bakura Specialist Hospital Gusau

Summary of Observations at The Yariman Bakura Specialist Hospital Gusau

- Leak proof containers available in YBSH but not lined
- Collation Bins are available but not the Wheelie type
- Waste management is out-sourced to Private firms

- Laboratory Blood bank has P24 antigen for Donor screening
- Hospital was rated the neatest in terms of sanitation and hygiene practices
- Outsourcing of hygiene and sanitation and waste management to private accounted for the general neatness of the hospital

DR. KAIMA PRIMARY HEALTH CENTER

The team also visited Dr. Karima Primary Health Center, which is one of MSH supported PMTCT sites. Here it was observed that there is no policy guideline for disposal of hospital waste. However, the facility currently disposes its waste with the assistance of the National Programme on Immunization.

Next Steps

- Engage consultants to deliver site-based orientation and training to facilities
- Facilitate the establishment of State technical Committee on Waste Management
- State to integrate healthcare waste management planning into budgeting cycles
- Increase synergy between the State Ministries of Environment, Health and Private Sector to improve Healthcare waste management, injection and Blood safety practices
- Assist State Government in compiling and quantifying needs for healthcare waste management

ASSESSMENT FINDINGS FROM NIGER STATE:

General Findings –

The team found Unavailability of donor outreach teams, repeat HB not done, non-availability of BP apparatus, poor recording, CRRIF not sited, and inadequate equipment – no blood bank dedicated equipment.

Highlights of findings from Niger State

1. Stakeholders Meeting

In Niger state, one-day stakeholders meeting was held in MSH Minna office to acquaint the stakeholders with the objectives of the training and roles expected of them to play towards a successful assessment of select health facilities within the state. The stakeholders that attended the meetings are from Niger state Agency for the Control of AIDS, Primary Health Care Development Agency and Ministry of Environment. The meeting was also used to review the checklist to be used and obtain buy-in for

purpose of rolling out the interventions. In attendance at the stakeholders briefing are the following persons:

Table 6: Niger List of Stakeholders

S/N	Name	Unit	Institutional Affiliation	Phone contact
1	Shehu Maigari	SAPC Coordinator	NGSMOH	0803390983
2	Zubairu A. Logoma	NISEPA (DGM, Env. Health)	Niger State Environmental Protection Agency	08030567778
3	Dr. Mike Onyilo	NISACA (Director, Prev. Treatment, C&C)	NISACA	08060325560
4	Amaechi Okafor	HPA	MSH	08077099651
5	Michael Umoren	Lab Advisor	MSH	
6	Christopher Ogar	HPS	MSH	
7	Chima Ntagbu	LSS	MSH	
8	Anthony Mbanefo	LSS	MSH	

Day 1 Assessment:

General Hospital Minna:

After the stakeholders meeting, the team proceeded to General Hospital Minna to assess their current practice on injection safety, blood safety and waste management. The team was welcomed to the hospital by the hospital secretary as the Medical Director is out on another assignment. A facility staff was assigned to the team who took the assessment team around to the different service delivery points. Among the service delivery points assessed were; Pharmacy, GOPD, Maternity, Theatre, and Laboratory. Dr Mike Onyilo of Niger SACA led the team in conducting the assessment.

Some of the observations during the assessment include:

- Waste handling and segregation is below acceptable standard
- PPE equipment such as thick gloves, masks, booths are not available for use by Waste handlers
- PPE Knowledge is very low
- Use of rapid test kits for blood donor screening
- Facility’s internal revolving fund programs is in place but needs strengthening
- Color coded bins not available – metal and plastic buckets are being used and reused
- Bins are being over filled
- There were no SOPs
- Though safety boxes are available in the facility, the service providers are not requesting for them and therefore not using them
- No incinerator in the facility



Figure 8: Open Dump Site at GH Minna

Summary and Conclusions:

At the conclusion of the assessment, the assessment team briefed the hospital management led by the Director, Hospital management board, Mr Alfa of the findings. On behalf of the facility management, Mr Alfa thanked the team and promised to support MSH towards a successful implementation. Some of the staff contacted were:

Table 7: Minna List of persons contacted

	Name	Unit	Institutional Affiliation	Phone No
1	Hajiya Safiya Idris	Hospital Sec	GH Minna	08057598718
2	Pharm M.A Isah	Director Pharmaceutical Ser.	GH Minna	08034517297

Day 2:

Assessment of Federal Medical Center (FMC), Bida:

The team assessed FMC Bida on day 2. On arrival at the facility, the assessment team met with the hospital management led by Odenui Esther, HOD Microbiology/ IPCU unit as the Chief Medical Director is not on seat. The team briefed them on the purpose of the assessment. The hospital management welcomed the assessment team and assigned a staff who took us round some service delivery points where the team interacted with service providers and assessed the service delivery. Zubairu A. Logoma of Niger State Environmental Protection Agency led the team in conducting the assessment in FMC Bida. some of the service delivery points assessed were; Pharmacy, GOPD, Maternity, Theatre, Laboratory, NHIS, Blood bank, Laboratory, and waste dump sites.

Some of the observations during the assessment in FMC Bida include:

- PPE equipment such as thick gloves, masks, booths are not available for use by Waste handlers
- PEP Knowledge is low
- Some staff have received prior training on injection safety and waste management

- Infection control committee is in existence but not active
- Waste handling and segregation is below acceptable standard
- Incinerators are available but not functional
- Incinerator is located very close to residential area
- Use of rapid test kits for blood donor screening
- Poor documentation across the service points
- Color coded bins available but not in use
- Bins are being over filled
- There were no SOPs
- Though safety boxes are available in the fa, the service providers are not requesting for them and therefore not using them



Figure 9: FMC Bida – Collapse local incinerator



Figure 10: Incinerator near residential buildings at FMC Bida

Summary and Conclusions:

At the conclusion of the assessment, the assessment team briefed the hospital management led by the Head of Administration Abdullahi M. Berui of the findings. On behalf of the facility management, Mr Alfa thanked the team and promised to support MSH towards a successful implementation. Some of the stakeholders contacted in FMC Bida include;

Table 8: FMC Bida List of Stakeholders Contacted

1	Abdullahi M. Berui	Head of Admin	FMC Bida	08039658429
2	Odedima Esther	HOD Microbiology/ IPCU	FMC Bida	07032620677

Assessment General Hospital (GH), Suleja:

The assessment in GH Suleja, was conducted by MSH Niger team comprising of 2 Laboratory Systems Specialist and HIV prevention specialist. On arrival at the facility, the assessment team met with the Head of Nursing services Matron Aboki, Chief Medical Director was on an official trip to Minna. The team briefed her on the purpose of the assessment. She welcomed the assessment team and assigned a Staff Mr. Usman Abdullahi (Head of Infection Prevention and Control) who took us round some service delivery points where the team interacted with service providers and assessed the service delivery. Some of the sites visited include; Emergency Unit (injection room), GOPD (injection room), Pharmacy and the Laboratory (Blood bank, phlebotomy). The team could not assess the theatre due to prolonged surgery they were handling.

Some of the observations during the assessment include:

- Waste handling and segregation is below acceptable standard
- PPE equipment such as thick gloves, masks, booths are not available for use by Waste handlers
- PPE Knowledge is very low
- Use of rapid test kits for blood donor screening
- Facility’s internal revolving fund programs is in place but needs strengthening
- Color coded bins are not available and are not in use
- Bins are being over filled
- There were few SOPs in service points
- The hospital also had a copy of the injection safety and HCWM policy guideline from FMOH
- Had an IPC unit, though not functional as at the visit
- Safety boxes are not available in the facility for over two years.
- The incinerator in the facility is poorly constructed (no chimney, one loading chamber, poor ventilation and no trained personal to handle it.)
- Even with the present of the incinerator waste is dumped at waste disposal site within the facility.

At the conclusion of the assessment, the assessment team briefed the Head of Nursing services. On behalf of the facility management, Matron Aboki thanked the team and promised to support MSH towards a successful implementation. Some of the staffs contacted were;

Table 9: GH Suleja List of Stakeholders Contacted

	Name	Unit	Institutional Affiliation	Phone No
1	Matron Aboki	Head of Nursing Services	GH Suleja	0803682585
2	Mr. Usman Abdullahi	Head Infection Prevention and Control	GH Suleja	08055021535
3	Mr. Femi Lucas	Head of Laboratory Services	GH Suleja	08034301136

ASSESSMENT FINDINGS FROM KEBBI STATE:

General Findings –

The team found poor record keeping, shortage of personnel, inadequate equipment – no blood bank dedicated equipment, unavailability of donor outreach teams, and repeat HB not done

Highlights of findings from Niger State

1. Advocacy Visit

Prior to the assessment, the MSH Laboratory and Prevention team had paid a one-day advocacy visits to State ministries of Health and Environment; and with relevant agencies/Stake holders concerned with Waste Management in the state. This advocacy was sensitization on general healthcare waste management within the state and the formation of State Health Care Waste Management Committee (SHCWMC) to drive Injection safety, Blood safety and Health Care Waste Management Initiatives.

2. Stakeholders Meeting

On the arrival of the MSH Prevention and Laboratory Team in held a consultative meeting with key stakeholders in Kebbi State Agency for the Control of AIDS (KBSACA) office. During the meeting, it was observed that there are two agencies involved in the coordination of waste management in the state: Kebbi Urban Development Agency (KUDA) and Kebbi State Environmental Protection Agency (KESEPA). From SACA Office, the team went for an advocacy visit to KUDA. AT KUDA, the General Manager with his team welcomed the team and was excited about the ideas of supporting healthcare waste management in the state. He cited some of the challenges facing KUDA as lack of funding, lack of waste management vehicles and tools, and the lack of corporation by the management of healthcare facilities operating in the state. The health facilities had reneged. KUDA had no idea of how waste generated from healthcare facilities were being handled in the state. KUDA is to partner with SACA for the installation of modern incinerators across the state. KESEPA did not fare better. They are a policy making agency and nor really involved in waste management.

DAY 1: Assessment of Sir Yahaya Memorial Hospital, Birnin Kebbi

MSH team, with the team of state stakeholders visited the management of the hospital. The MD was on official assignment to receive the Health Minister who was visiting the state. The team was received by the Hospital Secretary. On being briefed by the team, the HS attached a hospital staff to the team to conduct the assessments. The team was shared into two groups each responsible to blood safety and injection safety/general waste management respectively. Among the service delivery points assessed were: GOPD, Maternity, Pharmacy and Laboratory. Due to the strike action, and the time of assessment, the team could not visit more service delivery points. The waste disposal sites in the facility were visited.



Figure 11: A dump site at Sir Yahaya Memorial Hospital, Birnin Kebbi



Figure 12: Incinerating site at Sir Yahaya Specialist Hospital Bernnin Kebbi

Laboratory Personnel: Laboratory Scientist (1) (Intern who is awaiting posting to the site), Medical Laboratory Technicians (5), and Lab Attendant (7).

Organization: Daily routine tasks area established and Meetings hold with written minutes. HOD attends Management Meetings every Tuesday

Documents and Records: No procedure for document and record control and retention implemented and documents and records are easily accessible. SOPs are present for few test methods.

Equipment:

- Sighted a haematology analyzer that is also used by the Blood banking unit

- Equipment service information not sighted (with the QA Officer who travelled)
- Equipment inventory departmentalized.

Quality:

- Internal Quality Control performed and documented no discordant results.
- Workstation is clutter.
- Reagent logbook not sighted (with the HOD)
- There is waste segregation.
- Fire extinguishers available but no last serviced information.
- Laboratory personnel are not immunized against HBV.
- No incidence register or record.
- No reviewed protocol sheets for number of lysed samples.
- 1 or 2 number of ABO discordant results per month.
- No occurrence register.
- No records of mislabeling.
- No records of performance in proficiency testing.
- Incinerator is the final waste disposal method available and in use.

Logistics and Inventory Management:

- CRRIF not sighted (in another unit) for records of consumption pattern (number of blood units collected) for the last six months.
- Documented records of expiry dates checked, shortages and damages.
- CRRIF in another unit not sighted.
- TTI results segregated for HIV, Hepatitis C and B, VDRL.

Blood bag utilization rate:

- No records of Blood bags collected for the period, failed bleeds.
- No number of units issued, discarded and damaged bags.

Phlebotomy:

- No any records available in this unit.

Recruiters/ Donor Outreach Team:

- Drive teams conducted 2-3 years ago.
- No Donor feedback.
- Staff annual evaluation conducted only in state staff evaluation.
- No proper completion of donor questionnaire.
- No repeat of Hb of blood units.
- BP apparatus not available, pulse rate measured

- 2-3% TTI prevalence

In relation to injection safety and general healthcare waste management:

- There is no policy or guidelines.
- Standard disposable equipment was available at all points assessed, including safety boxes.
- Drugs and Syringes are purchased and sold to clients during visits through a State-run revolving fund and NHIS.
- Evidence of used sharps noticed around dump sites
- In the maternity, the use of gloves as a PPE was observed for every client, and every client comes with syringes/needles.
- Safety boxes are available in the facility, though occasionally the heads of units fail to make appropriate requests.
- No reports of needle stick injuries
- Hepatitis B vaccine has not been given to majority of staff interviewed or did receive the complete dosage.

Day 2: Assessment of Federal Medical Center, Birnin Kebbi:

The team met with the management of the centre. The MD raised issues bordering on the inability of KESEPA and other agencies to handle healthcare waste in the state due to lack of funds, and equipment. He queried the rationale behind MSH wanting to provide interventions in healthcare waste management if the organization is not ready to fund KESSAPA and KUDA. The MD was briefed on the current shift towards sustainability and the readiness of MSH to provide technical assistance whenever required. He accused MSH of not supporting the hospital laboratory, especially as regards equipment maintenance. The Laboratory Systems Specialist In the state was on hand to debunk that claim and stressed that the equipment in question had been fixed, but the MD had not been properly briefed. He requested that the HODs Laboratory and Pharmacy lead the team in conducting the assessment. After the assessment, the team debriefed the MD on the shortage of safety boxes within the facility and promised to provide 100 pieces, through KBSACA. Some of the service delivery points assessed include: Maternity, theatre, injection room in GOPD, pharmacy, general store and laboratory



Figure 13: A Blood Bank that supports safe blood storage practice at FMC, Birnin Kebbi

Laboratory Personnel: Laboratory Scientist (9), Medical Laboratory Technicians (22), Lab Attendant (1).

Organization:

- QA Officer in the blood banking unit determines routine task
- Meetings hold. Secretary maintains a Minutes Book
- HOD Lab attends management meetings and is answerable to the Head of Clinical Services.
- Blood Separation Techniques is in the pipe-line

Documents and Records:

- No documents and records retention procedures
- SOPs are Available. **Knowledge of the Laboratory Quality Management Systems very poor.**

Equipment:

- Equipment Management needs to be improved

Quality:

- Internal Quality Control performed and documented no discordant results.
- Workstation is clutter.
- Reagent logbook not sighted (with the HOD)
- Fire extinguishers available but no last serviced information.
- Laboratory personnel are not immunized against HBV.
- No incidence register or record.
- No reviewed protocol sheets for number of lysed samples.
- 1 or 2 number of ABO discordant results per month.
- No occurrence register.
- No records of mislabeling.
- No records of performance in proficiency testing.
- Incinerator is the final waste disposal method available and in use.

Logistics and Inventory Management:

- Documented records of expiry dates checked, shortages and damages.
- TTI results segregated for HIV, Hepatitis C and B, VDRL.

Blood bag utilization rate:

- 15 – 20 Blood bags collected per day..
- No number of units issued, discarded and damaged bags.

Phlebotomy:

- No records available in this unit.

Recruiters/ Donor Outreach Team:

- Drive teams exist
- No Donor feedback.

- Staff annual evaluation conducted only in state staff evaluation.
- Donor questionnaire available. No proper completion of donor questionnaire.
- No repeat of Hb of blood units.
- BP apparatus available. A nurse is posted to the bleeding room for counselling and pre-donation checks.
- HBV: > 20%
- HIV: > 7 %

In relation to injection safety and general healthcare waste management:

- There facility has a policy recommending injection safety practices.
- A copy of the waste management guidelines issued by FMOH is available
- Standard disposable equipment was available at all points assessed and auto disposable syringes.
- Lack of safety boxes
- In the theatre, 100% universal precautions are observed while in the maternity this rate is reduced due to work pressure.
- All the units assessed confirmed that new sterile syringes are opened in the presence of clients as a matter of policy
- The team did not sight any SOPs or communications materials in all points assessed
- No reports of needle stick injuries
- Hepatitis B vaccine has not been given to majority of staff interviewed or did not receive the complete dosage.
- The disposal of waste in NHIS unit is being sub contracted to a private outfit

Table 10: Kebbi State List of Persons Met

S/N	Name	Unit	Institutional Affiliation	Phone contact
1	Kabiru Hassan	DD Public Health	SMoH	08066503278
2	Shehu Umar		KESPHCDA, Dir.	08036157765
3	Aisha M. Usman	Procurement Officer	Kebbi SACA	07037951460
4	Aliyu Galadima	General Manager	KUDA	08036473599
5	Odoh David E.	Med Lab Scientist	FMC	07050215233