VACCINES AND IMMUNIZATION

BY MRS JENIFER MUOKI

INTRODUCTION TO EPI

.The concept of immunization was started at ALMATA in 1974.

.In Kenya it was started in 1980.

.Immunization was being carried before but with many weakness.

.KEPI was started to address this problems.

.KEPI was later changes in to EPI and now it is DVI.

WEAKNESS IDENTIFIED BY KEPI

.Immunization coverage was low between 5-20% in most developing countries.
.Their was frequencies use of non potent vaccine
.Inadequate of managerial skills of workers offerings the immunization services.
.There were shortages of human and material invested in immunization programmes
.There was lack of monitoring and periodic evaluation of immunization programmes.
.N/B between 1980-1985 the target children was of 5 years and below. In 1985 the target was changed to 0 to 1 year.

AIMS OF EPI

- To reduce morbidity, mortality and disability from the common child preventable diseases for children under one year and pregnant women.
- Increase and sustain immunization coverage in children below one year of age.
- Enforce cold chain systems interims of better vaccine storage and handling so as to enhance immunization coverage with potent vaccine.
- To promote training of health workers handling vaccine.
- Increase public participation in immunization.
- To strengthen routine immunization supporting system in order to sufficiently monitor and evaluate the programme.

EXTERNAL ENVIRONMENT IMMUNIZATION PROGRAMMES

.CHALLENGES

.Emergency of new vaccine e.g. Rota virus and Pentavalent.

.Emergency of new technology.

.Decentralization and other health sector reforms.

- To ensure continuity of immunization EPI staffs have to learn ways to this changes by the use of-
  - Problem solving technique.
  - Setting priorities.
  - Decision making.
  - Managing time, human, finance and material.

IMMUNIZATION OPERATION

- **Service delivery** which include strategies and activities to ensure immunization service to the target group.
- **Logistic** this is delivery of vaccines and other equipment to the place of use management of cold chain.
- **Vaccine supply and quality** this involves procuring of the vaccines and monitoring the vaccine quality.
- **Disease surveillance** this is monitoring of the diseases, record keeping, reporting case and outbreak investigation
- **Advocacy and communication.** Consist of mobilization community education on immunization and advocacy.

SUPPORTIVE COMPONENT OF IMMUNIZATION

- **Management-** this is policy making, standard setting, planning and coordination, information collection and sharing collaboration with others.
- **Sustainability** – includes budgeting, identifying funding resource and activities leading to increased fund allocation.
- **Human and institutional resources** which involve staffing, training and supervision.

IMMUNIZATION POLICIES, NORMS AND STANDARDS.

Norm- expression of what is desired.

Policies- is rules and regulation.

Standards- a values or condition setup by authority as a rule for measuring quality and to satisfy the norm.

NATIONAL IMMUNIZATION POLICY

.Immunization policy is a consolidated national effort to contribute in the improvement of quality of life of children and mothers.

.**OBJECTIVES**

.To provide technical sound basis for immunization procedures in line with international norm and standards.

.Ensure children and woman receive vaccine of good quality so as to prevent children killer diseases.

.To ensure that disease eradication and elimination program and disease surveillance are done.

GLOBAL POLICIES ON IMMUNIZATION

.EPI is a global program and has expanded it is focus from immunization coverage to disease surveillance, eradication and elimination.

.The national goal of EPI

.Eradication of poliomyelitis by the year 2000 but it has not been possible because of immigration.

.Eradication of neonatal tetanus by the year 2000 but not done.

PRINCIPLES OF EPI

.**Integration of EPI services** in to maternal child health and family planning services so that to ensure that EPI services are on daily basis together with other services all done under one roof.

.**Training** – there are three level of training (1)managers training (2) middle level training for district and county workers (3) operational level training for immunization service provider.

.**Health education-** the community should be educated on the importance of immunization for their full participation.

.**Surveillance-** is done through collecting of data on disease occurrence for action.

.**Logistics and supply-** it the responsibility of EPI manager to provide and utilize the EPI commodities.

CONT.....

.**Cold chain-** it is important to ensure that the vaccines are potent from the manufacturer to the receiver for it to be effective. The temperature should be maintained between 2-8 degrees Celsius.

.**Social mobilization-** it done to convince the community to own the immunization program me, it aimed at involving community to participate in immunization services. The importance is that the community can convince each other and pass information to each other.

.**Monitoring and evaluation-** it is the responsibility of every manager to monitor and evaluate every activity to attain a the goal of the immunization program .

REASON FOR LACK OF COMMUNITY PARTICIPATION IN IMMUNIZATION PROGRAMME

.When the client is sent back home un attended.
.Lack of knowledge on the importance of immunization.
.Distance to the health facility.
.Ignorance or lack of awareness .

TERMS

.**Vaccine-**is a suspension of killed or life attenuated organism administered for prevention.

.**Vaccination-** introduction of vaccine in the body to produce immunity to a specific disease.

.**Immunity-** ability of the body to resist infection.

.**Immunization**- the act of creating immunity by artificial means.

.**Antigen-** is substance bacteria or other wise which in suitable condition can stimulate the production of an immune response.

.**Antibody**- a group of cells that combine with antigen to form immunity.

TYPES OF IMMUNITY

.Artificial and natural.

.Passive and active

.**NATURAL ACTIVE IMMUNITY**

.Is when the individual suffer from a disease and develops antibodies against that particular disease.

.**NATURAL PASSIVE IMMUNITY**

.Mothers suffers the disease and passes the antibodies to the baby and it is short lived.

.**ARTIFICIAL ACTIVE IMMUNITY**

.This is when the antigen is given to an individual and the antigen and antibody react and protection is permanent.

CONT.....

.**ARTIFICIAL PASSIVE IMMUNITY**

.This is when you immunize the mother and their formation of antibody and is passed to the fetus and it is not permanent.

.**HERD IMMUNITY-**

.Occurs when a large population of around 80%is immunized and the remaining 20% gets natural protection from the others.

.**INNATE IMMUNITY-**

.Is immunity one is born with due to exposure to microorganism and the body produce antibodies.

VACCINES

- **BCG- BACILLUS CALMETE GEURIN**
  - It is a live attenuated vaccine which is usually freeze dried and was developed by Calmete and Guerin from microbaterial bovis.
  - It gives artificial active immunity against tuberculosis and this is shown by a scar in appositive tuberculin reaction.
- **Age of administration**
  - At birth or soon after, but can also be give at any other age.
  - Any one less than 15 year of age who have not suffered from tuberculosis and doesn't have BCG scar is eligible to vaccination.

CONT.....

.The route of administration is intradermally just under the skin in the outer aspect of the left fore arm at the junction of the upper and mdlle third of the arm.

.Use a very small sized needle gauge 26 under one mill syringe.

.The site of injection is cleaned with wet swap and with the skin stretched between the thumb and the middle finger, the needle is inserted in to the skin with the barvel facing up.

.The syringe should be kept flat on the skin as much as possible.

.Dosage to children below 1 year is 0.05 mil and above is 0.1 mills.

CONT……

.NORMAL REACTION OF BCG

.When given intradermally a wheel forms measuring seven millimeter in diameter .

.The wheal disappear in about half an hour.

.During the first two week of immunization a small red nodule forms and within two week this nodule forms an ulcer then the ulcer heals and leaves a small scar measuring ten millimeters.

STORAGE

.BCG has a life span of 12 months from date of preparation if kept in the right temperature +2 to +8 degrees Celsius.
.The vaccine should be diluted using a cold diluents because warm may kill the bacilli.
.Once diluted it looses its potency within four hours.
.It is very sensitive to light and heat and the sun rays destroyed within five to ten minutes thus must be protected.

SIDE EFFECTS

.Local abscess at the vaccination site if given in the subcutaneous tissue.
.Persistent ulcer at injection site.
.Regional wide spread of lymphadenitis.
.Formation of pus.
.**CONTRAINDICATION**
.No absolute contra indication of BCG vaccine but children of signs with clinical AIDS should have the vaccine with help.
.**HEALTH EDUCATION**
.The injection site should not be applied any thing e.g. lotion soap for three days.

POLIO VACCINE

.It protects the child against poliomyelitis.
.Oral polio vaccine made of life attenuated
.Immunity induce is life long,
.Oral administration is more acceptable than injection.

CONT.....

.**AGE OF ADMINISTRATION**

.At birth dose ,6 weeks, 10weeks, 14 weeks.

.The dosage is two drops depending on the strength of the vaccine and instruction of the manufacturer.

.**Side effect**

.Associated with poliomyelitis(very rare if correct dosage adhered to

.Some children will have diarrhea.

.**Storage**

.+2 to +8 degrees.

.**It** is very sensitive to heat.

.If it is at the central region or at district store it should be stored between -15-20 degrees Celsius.

.**HEALTH EDUCATION**

.The mother should be keen incase of any vomiting.

PENTAVALENT VACCINE

.It given to children for the prevention of tetanus, pertusis, whooping cough, hepatitis B and hemophilic influenza. at the age of 6 weeks-10 weeks-14 weeks.

.Site of administration is left thigh

.Route is intramuscular

.Dosage is 0.5 ml.

.Duration of protection for diphtheria and pertusis it is long life protection and for tetanus 3-4 years.

.Reaction of vaccine is pain and inflammation in site of injection and slight fever within 12 hours.

CONT.....

.**Side effect**

.Fever treat it with antipyretics.

.**Storage of the vaccine**

.+2 to +8 degrees Celsius.

.**HEALTH EDUCATION**

.Advice the mother on the importance of the completing the other doses as scheduled.

.Incase of fever give antipyretics.

MEASLES VACCINE

.It is freeze dried heat sensitive vaccine.
.It is life attenuated measles virus vaccine.
.Age administration 9 months and 18 month.
.Dosage is 0.5 mils which lifelong immunity.
.Route of administration is subcutaneously about half down of the outer side of right upper arm.

CONT.....

.The needle is introduced in an angel 45 degrees.

.**Side effects.**

.Pain in the injection site.

.**Storage**

. +2 to +8 degrees Celsius.

.Diluents should be kept cold.

.**HEALTH EDUCATION**

.Manage fever with antipyretics.

YELLOW FEVER

.Given any one from east Africa planning to travel outside
.Route is subcutaneous
.Dosage is 0.5 mils for both children and adult.
.**Contra indication**
.Children under one year
.Women in first trimester
.**Storage-**
. +2 to +8 degrees Celsius.
.Once diluted use within one hour.

DEWORMING

.Is used to prevent or treat intestinal worm.
.Deworming in started in children from one year.
.Drug given is aldendazole (ABZ).
.Dosage-
    .At one year- 200 mg.
    . A year and 6 month-200 mg.
    .From 2 up to 5 year- 400 mg each year.
.Route- oral.
.Side effect- nausea, vomiting.
.Health messages: mothers to bring children for de-worming after six month.

ADVANTAGES OF COMBINED VACCINES

TO THE PARENT AND THE CHILD

.It is convenient since the mother would make few visits.
.The is lesser pain and distress since it will be one injection.
.Give protection against many diseases

ADVANTAGES TO THE HEALTH WORKER

.Improves efficiency due the less time used.
.Convenient since you give one injection.
.Economical since fewer syringes and needle are used.

CONT.....

.**ADAVANTAGES TO THE COMMUNITY**

.Give better compliance since vaccine is accepted by children and parent.

.High vaccine uptake and more chances of controlling of the killer diseases.

REASON OF VACCINE FAILURE

.Use of non potent vaccine.

.Administration immunization when a child is too young.

.There is usually a failure of 5%..

.Misdiagnosis.

MAINTAINANCE OF COLD CHAIN

.Cold chain must be maintained to ensure potency of the vaccine by temperature reading of the vaccine fridge at least twice daily.

.Verification of thermometer reading of the vaccine refrigerator.

.Assessment of the integrity of the vaccine vial monitor on each vaccine vial.

.Provision and alternative energy source for vaccine refrigerator e.g. generator, solar or gas cylinder.

MULTIDOSE VIAL VACCINE

.This are vaccine which are given and if not finished they are referred back to the fridge.

.**MULTIDOSE VIAL POLICY**

.The ministry of health has adopted the world health organization policy of using some selected vaccine in subsequent immunization session.

.It can only be used for the following vaccine-

- .Oral polio vaccine.
- .Pentavalent vaccine.
- .TT vaccine.

.This vaccine come in liquid form and they have got stabilizer and makes reused once opened.

.Can be used for a maximum of four weeks once opened.

CONDITION FOR USE PF MULTIDOSE POLICY

.Expiry date is not reached.
.They should be stored at the right of +2to +8 degrees Celsius .
.The vaccine should not be contaminated so aseptic technique to must used during withdrawal.
.The vaccine vial monitor should not have reached the discard point.
.Vaccine lebel should not have come out.

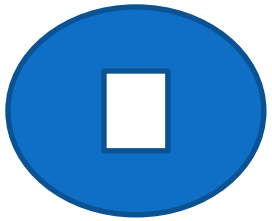
BENEFITS OF MULTIDOSE VIAL VACINE

.Reduces vaccine wastages.
.It is economical to use.
.It reduces missed opportunities.
.Increase vaccine coverage.

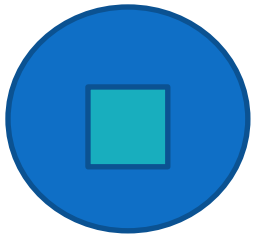
RISK IN USING MULTIDOSE VIAL VACCINE

.Contamination.
.loss of potency.
.Misinterpretation of vaccine vial monitor.
.Confusion with the reconstituted vaccine.

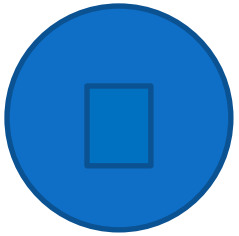
VACCINE VIAL MONITOR



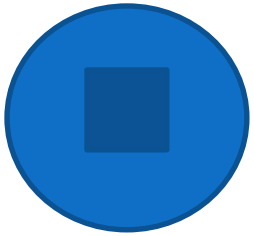
Drug is potent and can be used.



Drug is potent but use very fast as it may loose potency very soon.



Discard the drug as it has lost potency.



Discard the drug as it has lost potency.

ROLE OF A EPI MANAGER

.To ensure continuous availability of adequate EPI commodities e.g. vaccines, needles, cold boxes, refrigerators.

•Capacity building by updating all nurses on EPI updates through periodic review of guidelines and training material.

.Support supervision of the health facilities where immunization is being done which should be done quarterly.

.Ensure proper deployment of stuff so as to have the right number of staff with right qualifications.

.Proper record keeping, compiling of EPI reports.

.Cold chain and vaccine management.

.Distribution of vaccine and logistics management.

.Responsible for storage and transportation of vaccine and diluents.

DISTRIBUTION OF VACCINE

.DVI (division of vaccine and immunization) in collaboration with is KEMSA is responsible for recipient , storage and distribution of vaccine.

STORAGE AND TRANSPOTATION OF VACCINE AND DILUENTS

.Cold chain must be maintained whether in cold boxes vaccine carriers, portable fridges using conditioned ice packs.

.The diluents do not need to be kept in the refrigerator but should be cooled to +2 to +8 degrees Celsius when used.

.In the health facility and mobile clinics the diluents should be putted in same place with it is specific vaccine.

.Nothing else should never be stored in the fridge other than vaccine and diluents.

VACCINE ARRANGEMENT

.Fridge provided by KEPI is RCW42EG and the cooler is at the bottom. it is arranged from the bottom.

.from bottom to up trays.

. Blue tray - polio.

.Green tray- Measles.

.Yellow tray. BCG.

.Black- Rotta virus

.Orange tray- TT

.Red tray – PENTAVALENT.

.Purple tray- PCV.

.Vaccine are stored in the refrigerator according to heat and light sensitivity.

.The temperature should be read and recorded twice a day.

.The fridge should be defrozed once a week.

HANDLING COLD CHAIN EMERGENCIES

.Ensure the refrigerators are in good working order and checked by maintenance person at least after every six month.

.Ensure that their is power and gas and if you are using gas you must have an extra gas cylinder and indicate the date you have fixed.

.Ensure you have enough frozen ice packs incase of transporting the vaccines.

.The contact of in charges should be pasted on the wall of the bridge for enquiries.

CRITERIA TO CONFIRM POTENCY OF VACCINE

.Check the expiry date.
.Arrange in FEFO(first to expire fast out) order method.
.Check for vial vaccine monitor(VVM).
.Shake test. Is the liquid vaccine which should not be frozen. take two bottles randomly and shake gently, allow them to settles. If particles are seen in the liquid it means the vaccine is frozen the should be discarded and if clear it is potency.

CAUSES OF VACCINE WASTAGES

.Over stocking leading to expiry.
.Failure to FEFO method of storage.
.Poor method of withdrawal.
.Vaccine which could not be returned to the fridge.
.Poor handling causing the VVM to change.
.Not maintaining the cold chain.

IMMUZATION SAFETY

.Vaccination is considered safe when the correct vaccine is given to the right recipient with the right equipment using the route and right dosage and the used sharps disposed properly.

.When immunization does not harm the recipient, does not expose provider to risk and the result of the waste is not harmful to others.

.We uses safety boxes for the sharps.

.The injection device must be disposed in puncture resistant containers and when they are three quarter full they should be burned or incinerated.

CONT.....

.The needle should not be remove from the syringes and discarded together in the safety box.

. A system of monitoring; distribution, utilization and distraction of injection equipment should be introduced.

.The additional waste from the injection should also be disposed properly.

.All expired and damage/contaminated vaccines should be disposed off as per pharmacy and poison board regulation.

.The syringes in MCH for vaccination is auto disabled syringes to prevent reuse.

ADVANTAGES OF AUTO DISABLED SYRINGE

.Easy to use since the needle is attached.
.Can not be reused as it locks itself once used
.Prevent overdose since the measure is up to 0.5 mills.
.**HEALTH WORKER TASK FOR COLD CHAIN MAINTENANCE**
.Maintenance of cold chain +2 to +8 degrees Celsius.
.Ensure temperatures and recorded twice a day.
.Use of aseptic technique to avoid contamination.
.Proper follow of manufactures instruction.

CONT……

.Dilute vaccine with correct diluents.
.Update other health workers on any updates on vaccine.
.Check expiry date VVM before giving out vaccine.
.Teach mothers and care givers the normal reaction of vaccine and if any other reaction to bring the child back to the hospital.
.Stores vaccine according to heat and light sensitivity.
.Check the general condition of the child and allergy before administration of vaccine.
.Report and document any adverse effect (AEFI) following immunization.

PREPARATION OF STATIC OR FIXED IMMUNIZATION SERVICES

.Prepare the list of all that is needed which are:

.Cold boxes, ice packs, autos table needles, syringes, needles and other drugs that may be needed in case of sick children scissors, vitamin A capsules dewormers and paracetamol.

.Health reading material which include:

.Mother child booklet, permanent register for drugs, tally sheet , immunization summary sheet, pen and plain papers.

.Estimate the number to be vaccinated

.3-4% under one year.

.3-4% pregnant woman.

.20-25 woman of reproductive age.

CONT.....

.Estimate the quality of vaccine material.

.Ensure there are enough staff for immunization.

.**PROCESS**

.**R**egister all children who have come and these are to be immunized on permanent record book.

.Weigh all children.

. screen all children to be immunized from mother child booklet and check for he or she have received immunization as required, age of the child and corresponding vaccine to be given and give those who have not received and indicate dates.

.Provide mothers with nutritional advice.

.Treat sick children and immunize children and woman according to schedule.

.Give health messages and make proper records.

CONT.....

.**PROCEDURE**

.Great the mother and ask her if the child is sick.

.Weigh the child and give nutritious advice.

.Check child for BCG scar and ask mother her TT status.

.Determine which vaccine should be given.

.Give vaccine and record in the register and mother child booklet.

.Tell the mother about the reaction and side effect of the vaccine.

.Thank the mother and let her ask any question.

GENERAL GUIDELINES OF VACCINE ADMINISTRATION.

- The ministry of health will ensure that there is sustained demand for all available vaccines to all eligible Kenyans.
- All vaccines for human use in Kenya must meet the quality requirements as determined by the pharmacy and poisons board and must be dully approved for use within the country by the pharmacy and poisons board.
- all vaccines for human use must be certified as safe under normal circumstances of use. All known and unknown adverse effects of specific brands shd be well articulated.
- Where the safety profile of a specific vaccine cannot be guaranteed but the risk of the disease is serious, then the vaccine shd be administered after obtaining consent from the client.

CONT……

- all vaccines intended for simultaneous use with other antigens must be proven immunologically effective in the presence of the other vaccine and must not significantly interfere with the immune response to the other vaccine.
- Administration of vaccine outside the national immunization schedule shd be guided by the known disease burden/risk of the area/region of specific individual/community risk of exposure to the targeted disease or a specific medical condition of the client.
- All vaccines shd be stored in specialized medical refrigerators as prescribed by WHO.
- All injectable vaccines must be administered by duly registered HCWs.

CONT.....

- all injectable vaccines are to be administered using non-reusable injection devises.
- Reconstitution of all freeze dried vaccines shd be done by there matched diluents as provided by the manufacturer.
- All multidose-vail vaccines must be discarded after the manufacturers prescribed duration.
- Screening of immunological status is not advocated for but when special circumstances dictate this shd be overseen by the qualified HCW.

MISSED OPPORTUNITIES

.This is when one is eligible for vaccination, come to the clinic and does not get the vaccine for immunization.

.**METHOD OF IDENTIFYING MISSED OPPORTUNITIES**

.Screening all the under fives whether coming for immunization or for other reason.

.Review of the routine data of reporting diseases.

.Conducting a missed opportunity survey.

CAUSES OS MISSED OPPORTUNITIES

- Vaccine stock out.
- Lack screening of under fives.
- Health workers not giving all the immunization due for the child.
- False contraindication for immunization.
- Facility does not immunize daily or not at all.

CONT.....

. **NURSE ROLE TO REDUCE MISSED OPPOTUNITIES**

.Conduct a survey for missed opportunities.

.Avoid false contraindication for immunization.

.Ensure no vaccine stock out.

.Administer all vaccine due.

.Open multidose vaccine even for small group of children.

.Have trained staff for vaccination.

.Ensure children are available for immunization.

.Ensure those who are sick are admitted and immunised on discharge.

.Maintain record of immunization services.

OUTREACH AND MOBILE CLINIC

.Outreach services brings services closer to heard reach areas due to poor transport.

.You make sure you work closely with the communities by meeting with their leaders and arrange the best place to offer the services of outreach e.g. School, market.

.Ensure that their is a shade, well ventilated and protected from rain.

.Arrange for transport and lunch for the staff.

.Arrange on the date and time.

.Ensure their is table and chairs.

.Other arrangement are for the static clinic.

.Outreach immunization should be integrated with other maternal services.

IMMUNIZATION CAMPAIGN OR SUPLEMENTAL IMMUNIZATION ACTIVITY.

.Are days when every child under five years get immunization vaccine regardless of their previous immunization status.

.PORPOSE

.Control adeasesa incase of an out break.

.To raise immunization coverage.

.When the government has endorsed global mandate for eradication of a disease.

CONT……

.**TYPES OF IMMUNIZATION CAMPAIGN**

- National immunization day.
- Mass campaign when there is outbreak.

.It can be done at a fixed point or a static point.

.It can also be done door to door or mobile team especially for nomadic population.

CONT……

.**PLANNING FOR IMMUNIZATION CAMPAIGN**

.Draw the map of the areas to be covered and join them to form the district to be covered.

.Total population for the district.

.Target population for the under fives.

.Create awareness.

.Estimate the number of children to be immunized.

.Have enough stationeries for documentation.

.Proper transport mechanism .

.Make sure there is proper place for immunization free from sun and rain.

CONT……

.**WAYS OF CREATING AWARENESS**

.Through chief barazas.

.Through schools.

.Through male and female groups.

.Through posters.

.Through media.

.Through churches.

STARATEGY FOR INTEGRATION OF HEALTH AND IMMUNIZATION SERVICES

.Immunization services are now delivered as part of integration of mother and health services at the health facility and this integrated services are immunization, reproductive health, PMCT, management of childhood infection and macronutrient initiation.

.**REACH EVERY DISTRICT (RED)**

.Was a operational strategy that was implemented by using immunization as a platform and was started in 2010.

.Aim was to reach every child in every district.

CONT……

.**OPERATIONAL COMPONENT OF (RED)**

.Reestablish outreach vaccination services.

.Supportive supervision.

.Strengthening the link between the community and the services.

.Monitoring for action.

.Planning and management of resources.

ADVERSE EFFECT FOLLOWING IMMUNIZATION

.**DEFINITION "AEFI"**

.Is a reaction that occur in a client / patient following immunization, causes concern and is believed to be caused by immunization until proven otherwise.

.It can be classified as mild or moderate.

.**CAUSES OF AEFI**

.**Vaccine reaction**, event caused by vaccine given correctly and it is due to the component prosperities of the vaccine.

.**Programme error**, can be caused by vaccine preparation and handling and administration e.g. bacterial abscess due to un sterile injection.

.**Coincidental,** occur after immunization and it is not caused by the vaccine, the child may be having another condition.

.**Injection reaction**, an event from anxiety about pain from the injection site rather than the vaccine.

.**Unknown** the cause is not know

CONT.....

.**“AEFI” TRIGGER EVENTS.**

.Severe local reaction.

.Injection site abscess.

.BCG lymphadenitis.

.High fever.

.Loss of consciousness.

.Hospitalization believed to be related to vaccine.

.Death believed caused by vaccination.

.Whenever AEFI occurs surveillance are done.

CONT.....

.**COMPONENT OF AEFI SURVEILANCE**

.Detect and report all AEFI,s.

.To Investigate trigger events.

.Communicate with parent and health providers.

.Collecting and recording of date.

STEP WHEN AEFI OCCURS.

.**SHORT STEPS.**

.Take the affected child to the resuscitation room.

.Ask help from your colleges.

.Reassure the parent.

.Collect the vaccine and diluents that was used and document the details e.g. expiry date.

.Take a sample of specimens per the condition and take it to the lab.

.Observe the child as he improves and refer if not improving

.Report and investigate AEFI with 48 hours.

CONT.....

.**LONG TERM STEPS**

.Communicate to the parent, community, public at large and reassure them about immunization policy.

.Train all the concern persons as corrective measure.

.Conduct regular supportive supervision and give feedback.

.Improve availability of supplies and working condition to minimize programme error.

.AEFI can be reported by the parent, community and health worker and should be reported within 48 hours.

CONT.....

.**CLUSTER AEFI,S**

.When two or more case of a similar event which has occurred within the same month, district and is associated with the same vaccine.

.**NURSE ROLE IN PREVENTION OF AEFI.**

.Maintain cold chain to make vaccine potent.

.Use aseptic technique to prevent contamination.

.Follow manufactures instruction.

.Teach mothers on normal reaction of the vaccine and teach them to observe.

.Proper recording and reporting of AEFI.

.Check date of VVM.

.Check child conditions e.g. history of allergy by immunization.

DISEASE SURVEILLANCE

.**PRIOROTY DISEASES IN KENYA**

.Acute jaundice.

.Adverse effect following immunization.

.Anthrax.

.Cholera.

.Measles.

.Neonatal tetanus.

.Diarrhea

.Collecting data on a disease occurrence for action

INTERGRATED DESEASE SURVEILANCE AND RESPONSE SYSTEM

- **Surveillance** system is responsible for surveillance and response to priority disease and events in Kenya.
- It is responsibility is to collect all data , document, analyze , interpret disseminate data on priority diseases in Kenya.
- **TYPES OF DISEASE SURVILANCE**
- **Routine reporting system**,(passive) this is done routinely on daily basis and compile report at the end of the week.
- **Sentinel, (passive)**a few facilities are selected to report a type of a disease which is likely to occur in that area.
- **Case out break(active)** studies are conducted for purpose of collecting data about a disease out break and the goal is control disease out break.
- **Special studies(passive),** conducted by epidemiologist to measure the number of case of the disease and evaluate the reliability of the routine and sentinel reporting.

USES OF THE SURVEILANCE DATA

.To evaluate the impact of immunization services on the occurrence of the vaccine preventable diseases.

.To establish priorities among the EPI diseases or other communicable diseases.

.To identify the high risk group to death and illnesses among the immunizable disease for action.

.Helps one to observe disease trend of planning of immunization services.

.To identify, to investigate and to control out break.

AIMS OF DISEASE SURVEILLANCE

.Strengthen the capacity of health system to improve effectiveness of the surveillance system.

.To integrate multiple surveillance system so that activities, personnel, logistic and other resources are used effectively.

.Improves the follow of information between of the health system, form the community to the health facility, to the district and to the national level.

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.Improves laboratory capacity in identification of various pathogens.
.Enhance community participation in general surveillance activities.
.Contributes to epidemic preparedness including planning, forecasting stocking of emergency vaccine and drugs

.SOURCES OF SURVEILANCE DATA

.Hospital records about the diseases.
.From community heath workers.
.From week report of IDRS(integrated disease surveillance register)

COMMUNICATION IN IMMUNIZATION

IMPORTANCE OF COMMUNICATION FOR IMMUNIZATION

Communication is a key component of immunization operation as it:

- Promotes awareness, acceptance and demand for immunization among the users.
- Help EPI to achieve high coverage of immunization.
- Helps reduction of morbidity and mortality from vaccine preventable diseases.
- Helps in addressing cultural believes.
- Involves communities in disease surveillance.

CHALLENGES FOR COMMUNICATION IN IMMUNIZATION

Language barrier and you can address this by looking for an interpreter and learning the basic of the community language you offering service to.

- **Insufficient information to the users.**
- **Poor communication skills** of the health worker to the community.
- **Lacks of community involvement** in the preparation
- **Frequent missed opportunities** to immunization.
- **Giving confusing messages.**

MONITORING OF IMMUNIZATION PROGRAMMES.

- **Monitoring** is systematic and continuous process of examining data, procedures and practice to identify problems, develop solution and guide intervention.
- It is conducted regularly(daily, weekly, monthly).
- The information is used to direct activities on continuous basis.
- **SOURCES OF INFORMATION FOR MONITORING**
- From population census data to get total population in order to calculate target population.
- Mother child booklet.

CONT.....

- Immunization tally sheet.
- Monthly immunization summary sheet.
- Cord chain temperature monitoring chart.
- Immunization register/permanent register.
- Vaccine register.
- Out/in patient registers.
- Supervision report.
- **DROP OUT**
- Drop is an indicator used the level if utilization of immunization services.
- Coverage rate are done after one year.
- It is usually expressed in rate form inform of percentage

TOOLS USED TO MONITOR IMMUNIZATION

- Immunization monitor chart filled every end month and shows immunization coverage and drop out.
- Map with location of disease cases.
- Graph and chart showing the disease trend.
- Target disease data based on age distribution.
- Cold chain inventories.
- Routine immunization reports.
- Cold chain temperature monitoring chart.

EVALUATION IMMUNIZATION PROGRAMME.

- **Evaluation** is a periodic assessment of overall program status, performance, effectiveness and efficiency.
- **PURPOSE OF EVALUATION.**
- Ensure the target has been achieved.
- To see the short comings and address them.
- To get any complain from the community.
- To ensure use of save potent vaccines.