Measles Resurgence In Bangladesh : A Wake-Up Call for Healthcare Professionals

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Some news deeply disappointed us



23 march 2026

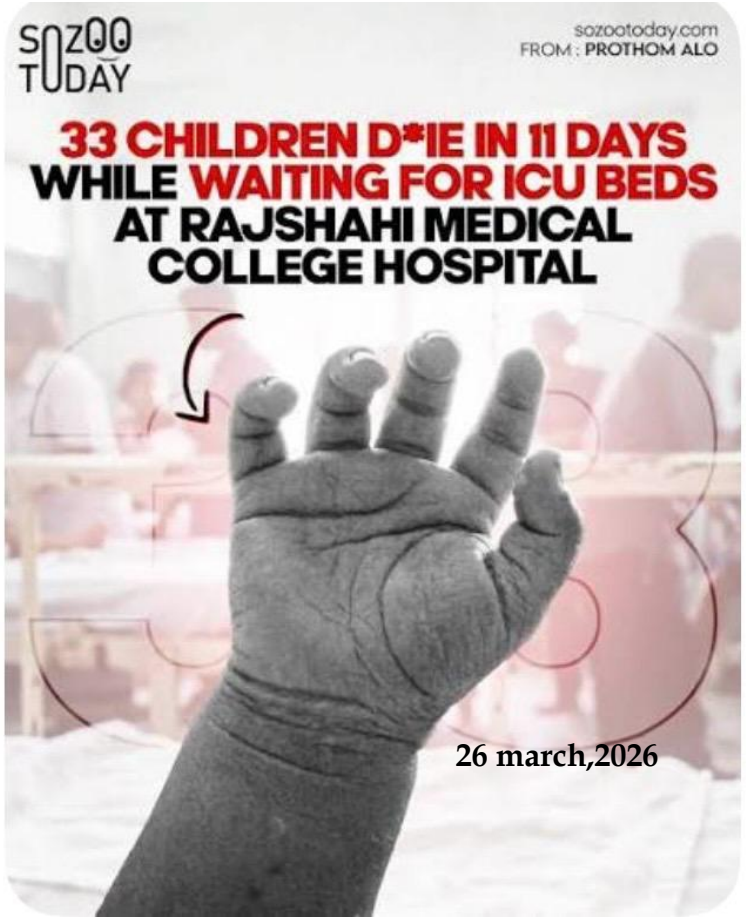
জেলা

বিশ্বস্বাস্থ্য সংস্থার প্রতিবেদন

রাজশাহী বিভাগে হামের সংক্রমণ বাড়ছে



Some news deeply disapointed us





রাজশাহী মেডিকেল কলেজ হাসপাতালে চিকিৎসাধীন শিশুরা। শনিবার বিকেলে হাসপাতালের ২৪ নম্বর ওয়ার্ডে

জেলা

রাজশাহী মেডিকেল

ছড়িয়ে পড়েছে হাম, আইসিইউর অপেক্ষায় থাকা চার শিশুর তিনজনই মারা গেল

আবুল কালাম মুহম্মদ আজাদ রাজশাহী

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আজকের কণ্ঠ

ঢাকায় হামের প্রাদুর্ভাব: এক হাসপাতালেই ১৯ শিশুর মৃ'ত্যু



তিনতন্ত্র

খুলনা বিভাগে হামের প্রাদুর্ভাব বৃদ্ধি, ১০ জেলায় ৭৯ শিশু হাসপাতালে



CHANNEL AGAMI

কুষ্টিয়ায় হাসপাতালে হামের উপসর্গ নিয়ে
২৪ ঘণ্টায় ভর্তি ৯০ শিশু



বাংলাদেশ | ২৮ মার্চ ২০২৬

রাজশাহী মেডিকেল

ছড়িয়ে পড়েছে হাম, আইসিইউর অপেক্ষায়
থাকা চার শিশুর তিনজনই মারা গেল

BACKGROUND

These shocking news unveils some unpleasant questions -

- **Are we prepared** ?
- Have sufficient infrastructure ?
- Have adequate intensive care facilities ?
- Have adequate staff ?

To Combat an Outbreak like Measles

BACKGROUND

- **Measles is A Burning Issue Today**

BACKGROUND

- Measles is a very ancient disease exist in the world for hundreds of years.
- Measles is a viral respiratory infection.
- It only infects human being.
- Measles occur worldwide.

BACKGROUND

- 16th-century Aztec drawing of someone with measles



BACKGROUND

- Still is a significant cause of childhood morbidity and mortality despite having vaccine.
- Greatest incidence is below 2 years of age in developing countries.
- Measles virus 1st isolated in 1954 by Dr. John F. Enders & Dr. Thomas Peebles.
- 1st vaccination started in USA in 1963
- Measles vaccine included in EPI schedule from 1979 in Bangladesh.

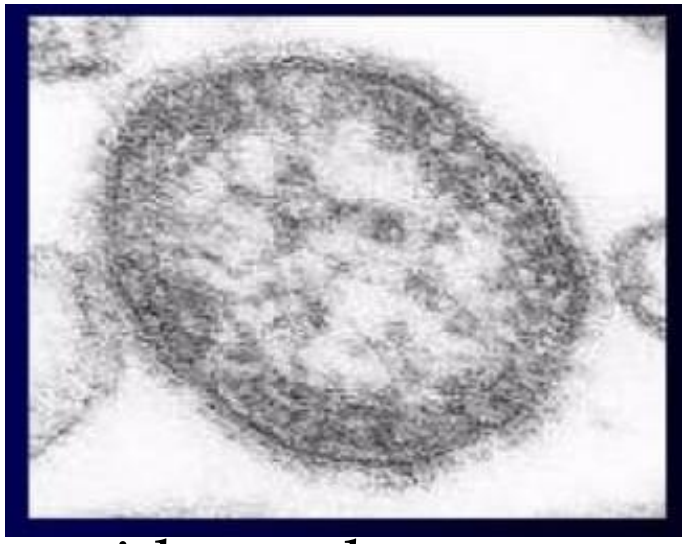
BACKGROUND

- Bangladesh is among the countries in the world who strongly combat against measles by EPI programme.
- But unfortunately today we are facing an outbreak of measles ,a big concern for Healthcare professionals, parents and policy makers.

MEASLES OUTBREAK IN BANGLADESH

- **Before recent outbreak Bangladesh also faced some more ourbreaks previously in 1976, 2001, 2016, 2018.**
- 1st case of recent outbreak diagnosed in Rohynga Camp on last 4th january 2026.

MICROBIOLOGY OF MEASLES CONT'D



- Measles is RNA virus.
- Also known as Morbili , Rubeola,

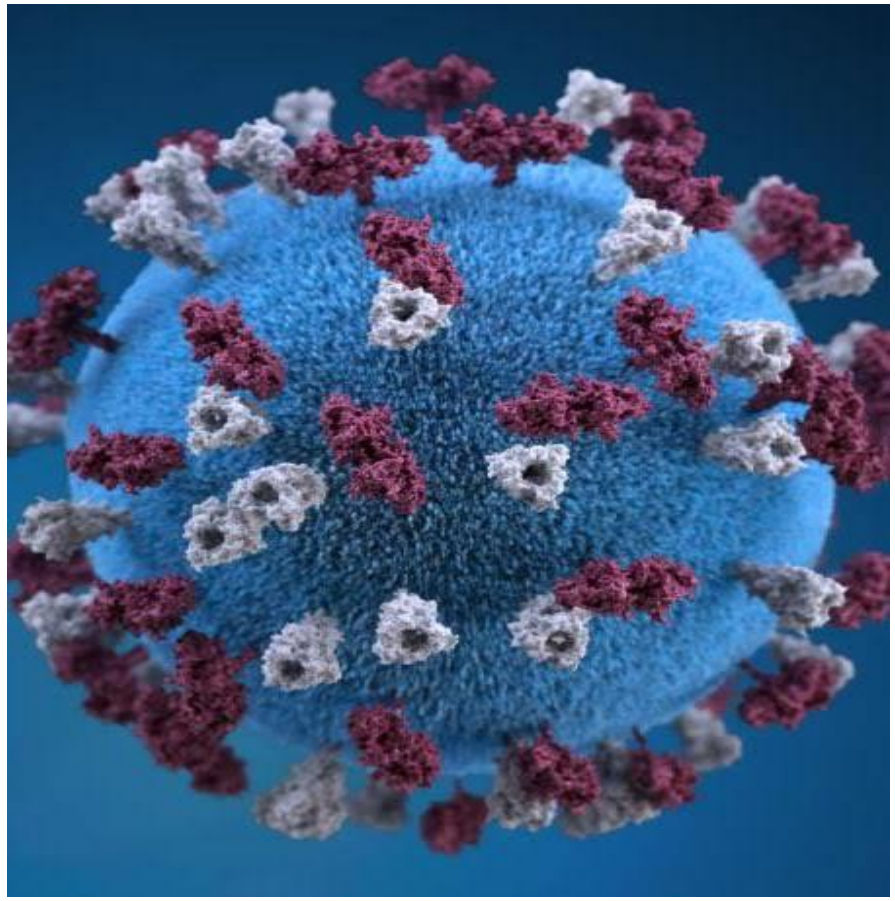
Red measles, 9 day measles etc named virus.

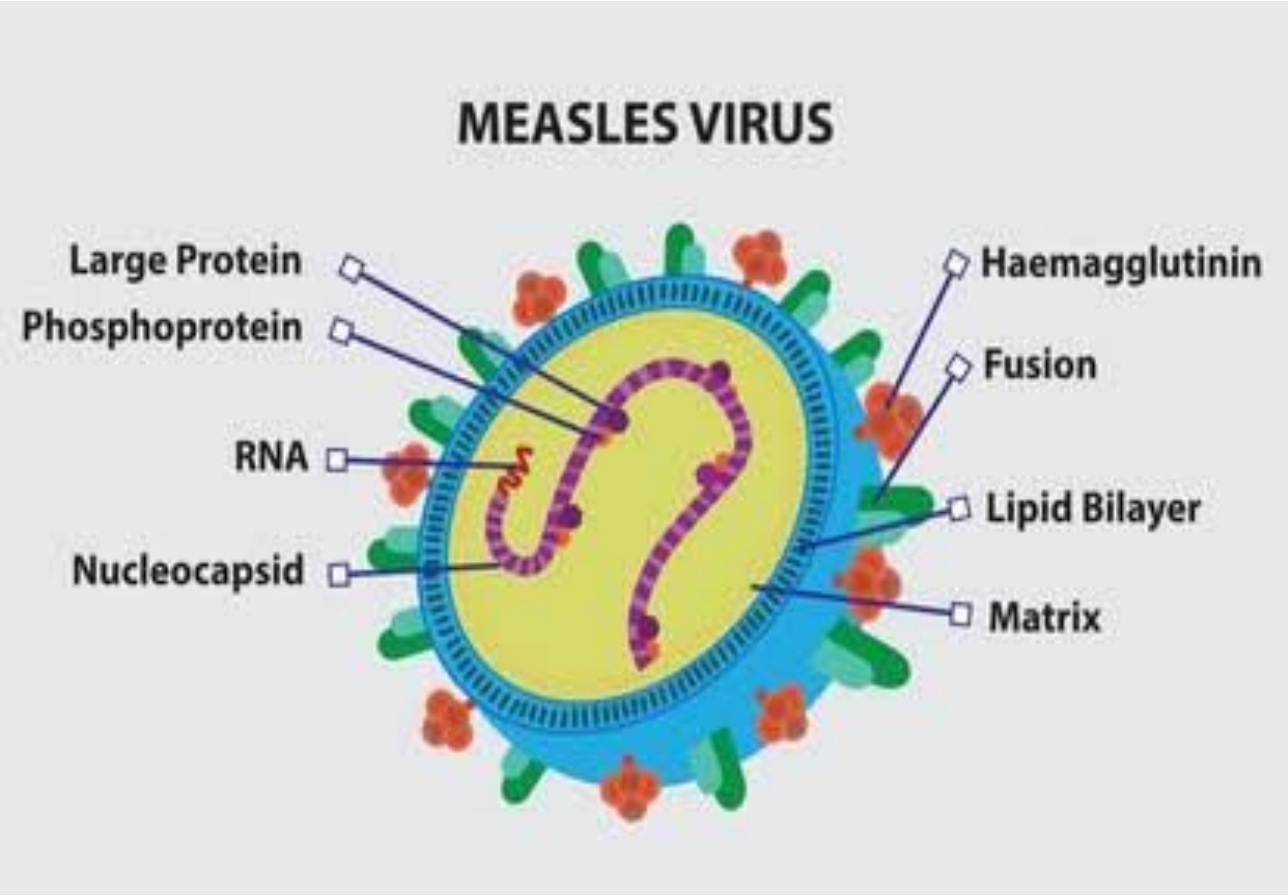
- Transmited by repiratory droplets and direct contact with nasal or throat secretions of infected persons.
- virus can remains in air /surface upto 2 hours
- infectious from 4 days before to 4 days after rash onset.

MICROBIOLOGY OF MEASLES CONT'D

- Although RNA virus typically have high mutation rates.
- Measles virus is considered as antigenically monotypic virus.
- Measles virus is killed by ultra-violate light and heat.

MEASLES VIRUS





Transmission:

Inhalation of infected droplets / airborne particles

↓

Entry via respiratory epithelium / conjunctiva

↓

Infection of epithelial cells + macrophages/dendritic cells

↓

Spread to regional lymph nodes

↓

Primary viremia (virus enters bloodstream)

↓

Replication in reticuloendothelial system(liver, spleen, bone marrow)

↓

Secondary viremia

↓

Dissemination to multiple organs(skin, respiratory tract, eyes)

↓

Host immune response (T-cell mediated)

↓

Maculopapular rash (immune-mediated)

↓

Immunosuppression(destruction of memory B & T cells)

↓

Increased susceptibility to secondary infections

↓

Complications(pneumonia, encephalitis, SSPE)

PATHOGENESIS OF MEASLES

Entry through respiratory route

↓

Replication in upper airway

↓

Invades and destroys regional lymphnode causing leucopenia

↓

Primary viraemia spread throught the reticuloendothelial ,respiratory and other systems

↓

Secondary Viraemia spread through skin, viscera kidney, bladder

↓

Koplik’s spot and rashes appear as delayed hypersensitivity

CLINICAL FEATURES

- Clinical features of measles are divided into three different phases -
  - ✓ Incubation phase (7-14 days)
  - ✓Prodromal phase (3 to 4 days)
  - ✓Exanthematous phase (6 to 7 days)
  - ✓Convalescence phase

CLINICAL FEATURES

Prodromal Phase presents with -

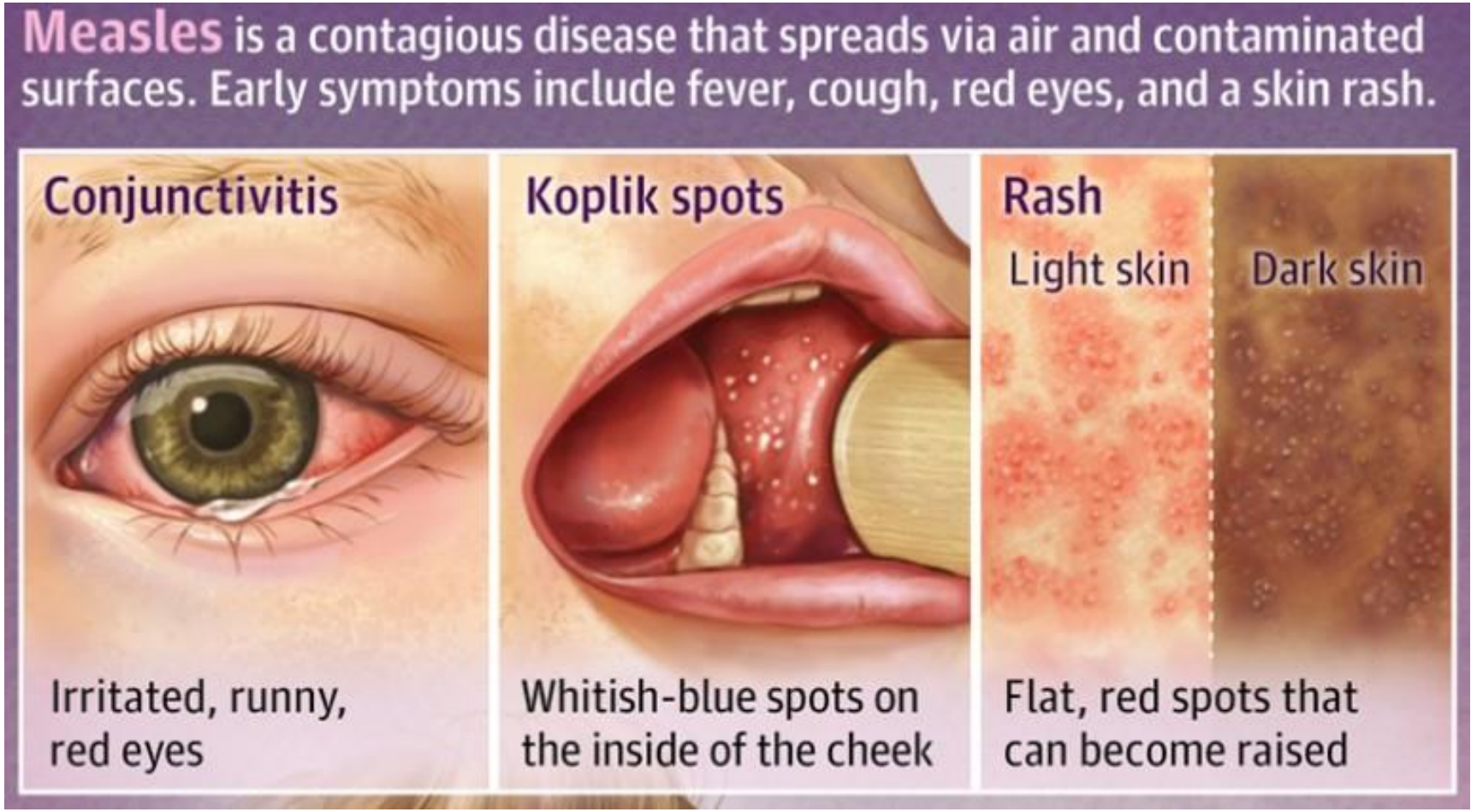
- Fever
- Cough
- Red Eye (Conjunctivitis)
- Photophobia
- Runny nose (Coryza)
- Koplik's Spots (white spot on buccal mucosa against upper molar teeth)-Key diagnostic feature.

CLINICAL FEATURES



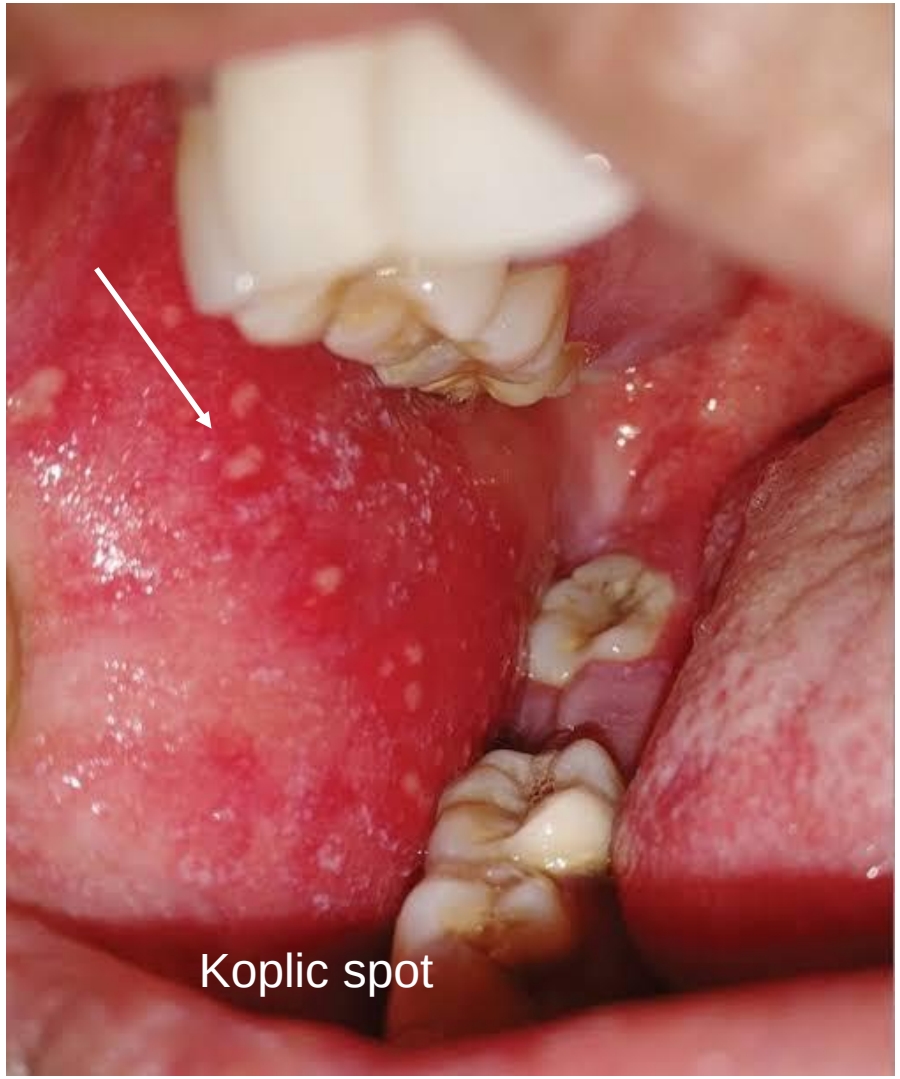


CLINICAL FEATURES



CLINICAL FEATURES





CLINICAL FEATURES CONT'D

Exanthamatous phase present with -

- Accentuation of Fever
- Orderly appearance of maculo-papular rash
- Rash starts behind the ear reaches extremities centrifugally
- Cough as a major symptom
- Generalized Lymphadenopathy in major cases

CLINICAL FEATURES CONT'D

- Convalescence phase characterized by -
- Beginning of resolution of symptoms
- Cough may persist about 2 weeks

CLASSIFICATION OF MEASLES

Measles is classified according to IMCI:

Signs	Classify as
• Any general danger sign or • Clouding of cornea or • Deep or extensive mouth ulcers	Severe complicated measles
• Pus draining from the eye or • Mouth ulcers	Measles with eye or mouth complications
• Measles now or within the last 3 months	Measles

DIAGNOSIS OF MEASLES

Diagnosis is basically clinical -

- H/O contact with a case of measles within 7-14 days before illness
- Characteristic prodromal features
- Orderly distributed maculo-papular rash

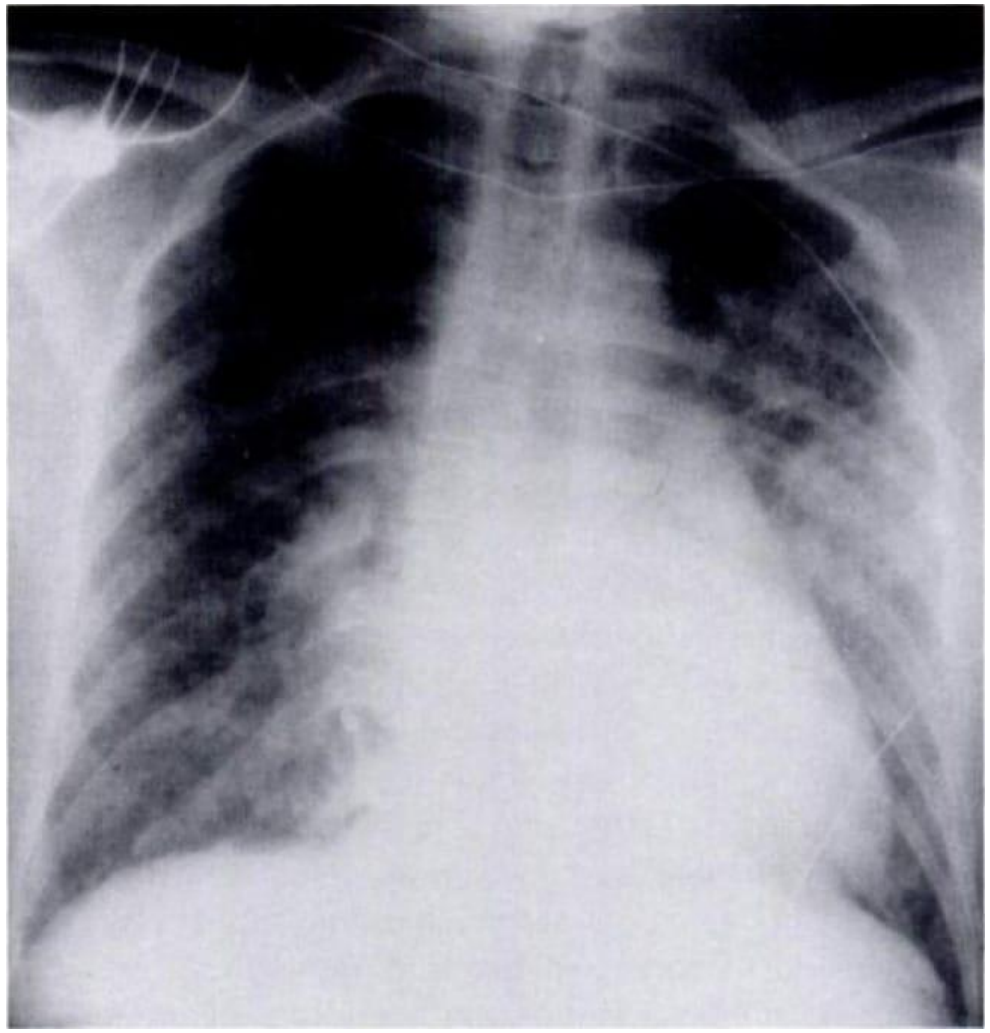
DIAGNOSIS OF MEASLES CONT'D

- CBC- Leucopenia with absolute lymphopenia
- Antibody detection: IgM,IgG
- PCR from nasopharyngeal swab.
- Viral culture.

DIAGNOSIS OF MEASLES CONT'D

CXR -

- Indicated if pneumonia suspected



TREATMENT OF MEASLES

- There is no specific treatment for measles
- Treatment is mainly conservative and to treat the complications
- Counselling of the Parents about the disease, it's complication, treatment and prognosis

TREATMENT OF MEASLES CONT'D

- Antipyretics (paracetamol 15 mg/kg)
- Adequate fluid to maintain good hydration and good renal perfusion
- High potency Vitamin A capsule

TREATMENT OF MEASLES CONT'D

Doses of Vitamin A

- **<6 month:** (50000IU) 2doses – 1st dose on admission ,2nd dose on the following day.
- **6 month – 1year :** (100000 IU) 2 doses – 1st dose on admission, 2nd dose on the following day.
- **Age >1 year :** (200000IU) 2 doses - 1st dose on admission, 2nd dose on the following day.

TREATMENT OF MEASLES CONT'D

Doses of Vitamin A

Xerophthalmia/malnutrition : 3 doses -

1st dose on admission

2nd dose on the following day

3rd dose at 2 weeks of 1st dose

TREATMENT OF MEASLES CONT'D

- Foods – oily foods and more proteins.
- Regular assesment and care of eye. If any complication arise give antibiotic eye drop, artificial tear and consult with ophthalmologist.
- Cough remedy by warm water, tea, tulsi leaf juice, lemon juice etc.
- Identify and treat complications like pneumonia , secondary bacterial infection by broad spectrum antibiotics.

Indication for admission

- Unable to drink /breastfeed
- Convulsion
- Lethargy/ unconscious
- Severe respiratory distress
- Corneal involvement
- Severe malnutrition

Indication for ICU admission

- Severe respiratory distress/ SpO2 <90%
- Measles pneumonia
- ARDS
- Shock/ Severe dehydration
- Recurrent seizure
- Severe malnutrition with comlpications.

PREVENTION OF MEASLES

- Promotion of Vaccination with MR or MMR by EPI programme
- Advice parents to take high potency vitamin A capsule 6 monthly to prevent eye complications.
- Advice parents to isolate cases from others for 4 days after appearance of rashes.

COMPLICATIONS OF MEASLES

- Immune deficiency and secondary bacterial infection- septicaemia, DIC, Flaring of Dormant TB, deep fungal infections.
- Respiratory – pneumonia/bronchopneumonia,empyema, croup, bronchiolitis .
- Gastrointestinal – Diarrhoea, Vomiting.

COMPLICATIONS OF MEASLES CONT'D

- Xeropthalmia.
- Severe malnutrition
- Neurological- Encephalitis

  -Subacute sclerosing panencephalitis

  - GBS.
- Others – stomatitis, acute renal failure,Otitis media

Factor's Complicating Measles Treatment & Outcome -

- Associated pneumonia
- Malnutrition specially vitamin A deficiency
- Extremes of Age (<1 year)
- Dehydration and poor oral intake
- Lack of Vaccination

What Causes Death In Measles -

- Measles does not itself causes death rather caused by it's fatal complications most commonly pneumonia.
- Other -AWD

  Encephalitis

  Malnutrtition

  SSPE



আশঙ্কাজনক হারে বাড়ছে হাম আক্রান্তের সংখ্যা; ৮ শিশুর মৃত্যু | Country Measles Increase |...

Jamuna TV · 9.8k views · 2 hours ago

MEASLES OUTBREAK IN BANGLADESH

Cause of recent outbreak of measles in Bangladesh -

- Disruption in EPI programme
- Shortage of vaccines
- Field level staff's strike
- Lack of awareness of parents to take EPI Vaccines.
- Post covid 19 effect on health economy

New UNICEF report shows 67 million children missed out on one or more vaccinations over three years due to service disruption caused by strained health systems and diversion of scarce resources, conflict and fragility, and decreased confidence.

20 April 2023



© UNICEF/UN0468139/Mawa

Nearly half a million Children in Bangladesh miss full immunization, despite 81.6 % coverage: Gavi, UNICEF, & WHO urge immediate action for equity

Immunization gaps persist in urban slums and hard-to-reach areas, calling for immediate, targeted action

28 April 2025



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Are we ready to combat measles ?




শিশু বিভাগ


MEASLES
WARD
KuMCH
পুরুষদের নামাজের
স্থান ২য় তলা।
মা, শিশু ও কিশোরী
প্রতিটি টিকাই জরুরি
ওয়ার্ড
Ward
ডায়রিয়া ওয়ার্ড



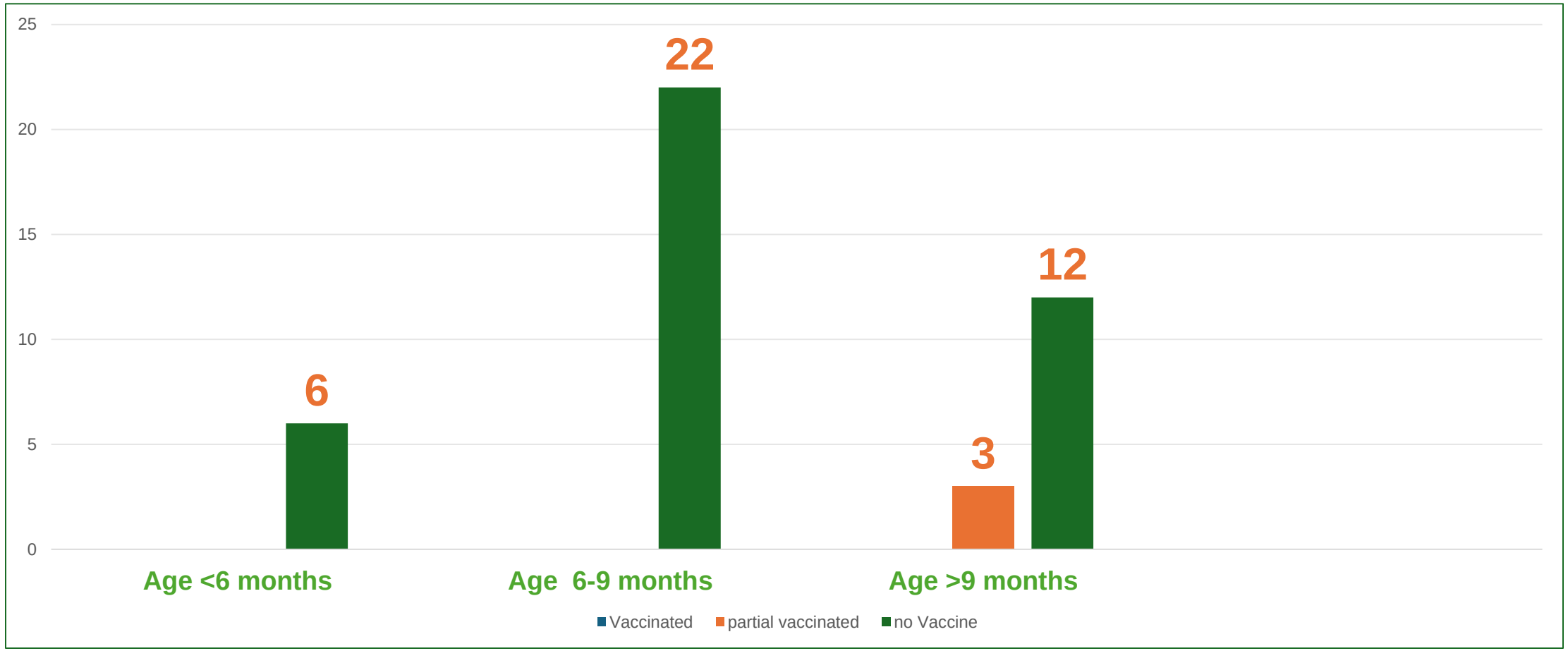


Some measles patients in our paeditrics ward

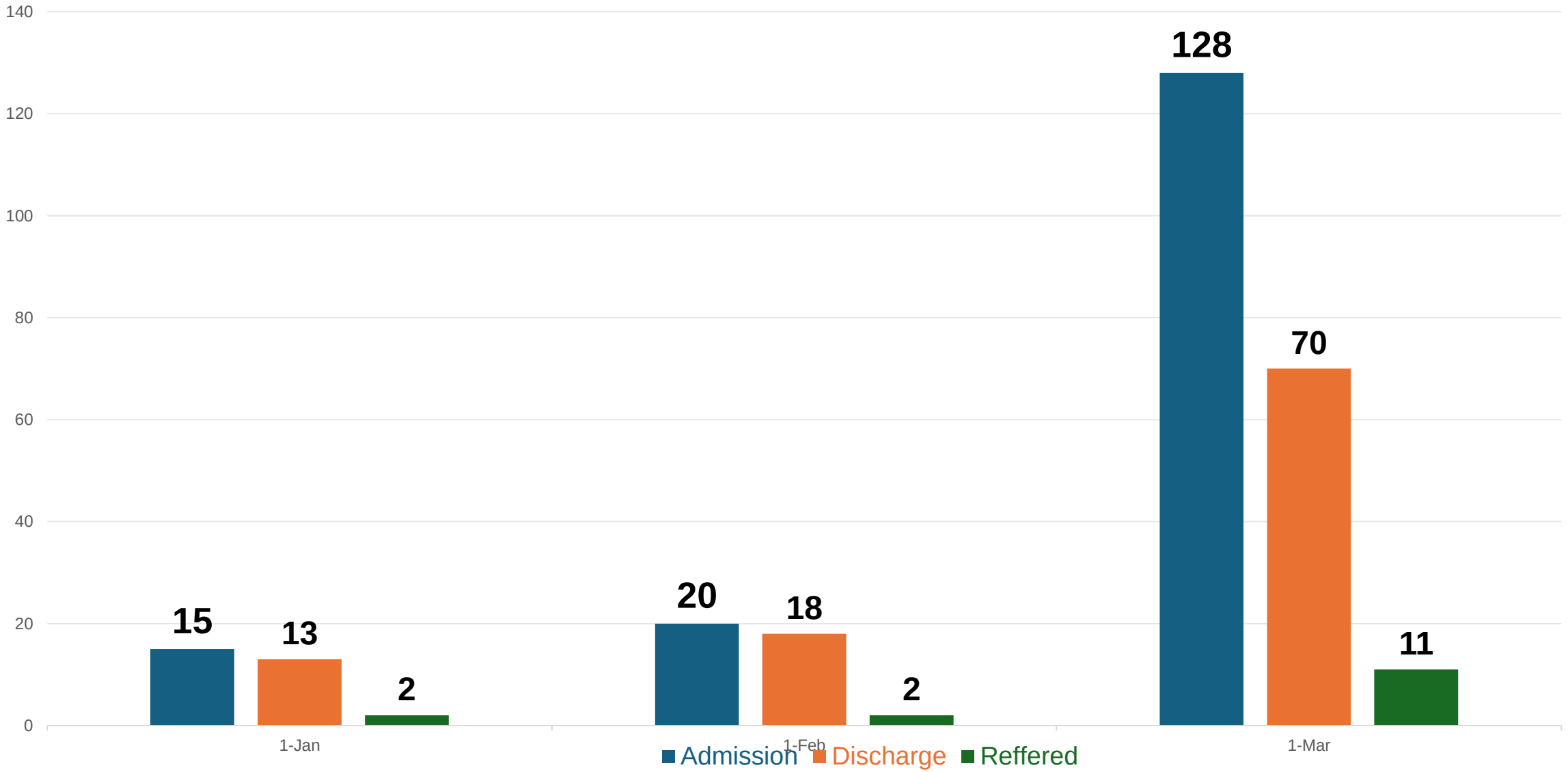


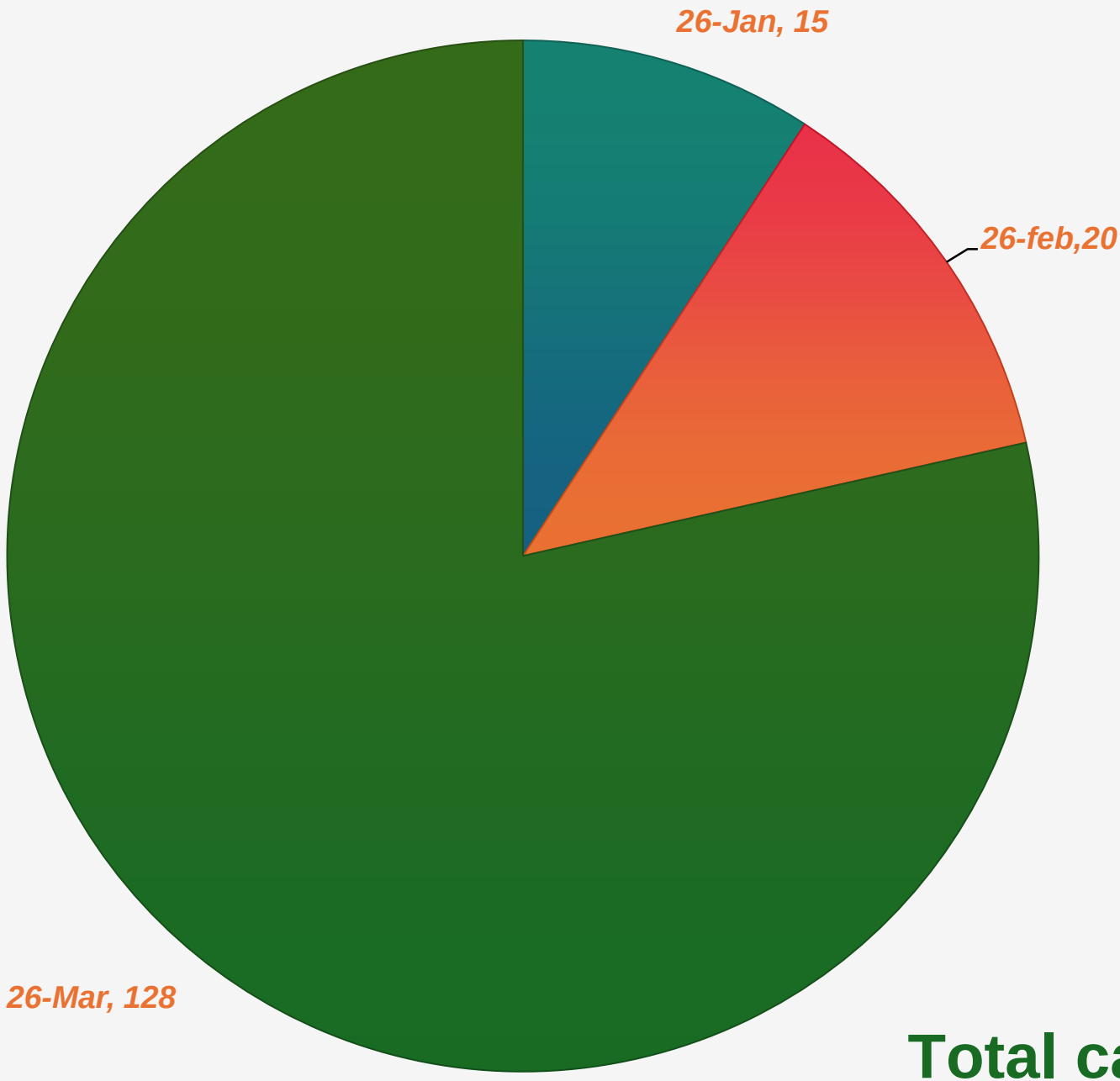


Present situation of our ward

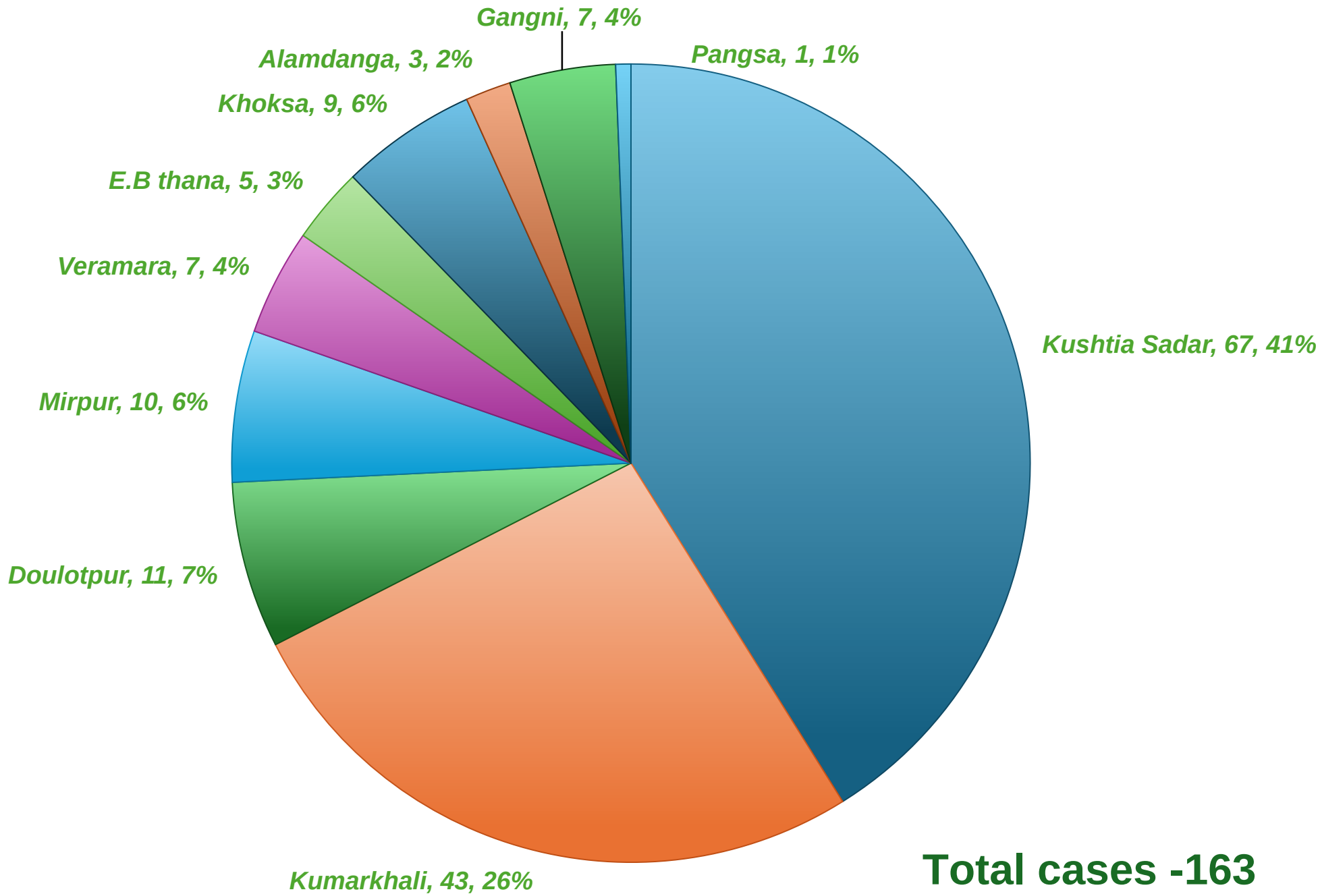


Total -43 cases


140
120
100
80
60
40
20
0
15
13
2
20
18
2
128
70
11
1-Jan
1-Feb
1-Mar
Admission
Discharge
Reffered



Total cases -163



Total cases -163

How to tackle the situation

01-Strengthen routine Immunization

>Ensure 2 doses of vaccine for every children

> Focus on- Zero dose(Never vaccinated)

-Underimmunized(missed 2nd dose)

BUT HOW?

>Door to Door vaccination campaigns

>Mobile clinic in slum and remote area

>school based vaccination drives

02-Strengthen Surveillance and Early Detection

>Improving reporting systems

> Rapidly identify:

Fever +rash cases

Cluster outbreaks

ACTION:

>Immediate response team

> Isolation of cases

> Vaccination

TAKE HOME MESSAGE

- Measles is a vaccine preventable disease.
- Recent outbreak exposes the incomplete vaccination in Bangladesh.
- Vitamin A has vital role in treatment.
- Incidence of death occur due to complications of measles.
- Prevention reduce need of HDU/ICU.

THANK YOU