/ NOMA FACT SHEET

WHAT IS NOMA?

> Noma is a preventable and treatable infection of the mouth which can spread within days through the tissues.

> Mortality is estimated to be up to 70-90% if untreated.

> When treated early, consequences are avoidable.

> Most commonly diagnosed in Africa but also reported in Latin America and Asia and all over the world throughout history.

> The true burden of disease is unknown and it is likely that noma is significantly under-reported.

Picture: Aisha, a 6-year-old noma survivor, in the ward of the Sokoto Noma Hospital. © Fabrice Catérini Inediz

WHAT CAUSES NOMA?

> The bacteria responsible for noma have not yet been identified and research is ongoing. There are a number of modifiable risk factors associated with noma:

- > Malnutrition: the predominant risk factor for noma.
- > Age between 2 and 6 years, rarely in adults
- > Immunocompromise (e.g. HIV, concurrent infection like measles)
- > Limited access to oral hygiene and clean water
- > Limited access to healthcare and routine vaccinations
- > Socioeconomic factors and poverty

HOW DO WE TREAT NOMA?

Noma is diagnosed by classifying it from warning signal to stage 5. Stages 1 and 2 are fully reversible if recognised and treated. However, once the disease reaches stage 3 and above consequences become irreversible, this is also when mortality predominantly occurs.

Noma is treated primarily with broad-spectrum antibiotics and supportive care such as hydration, nutrition and wound debridement. Some of the consequences of noma can be managed with multiple, complex and costly surgical interventions that often can only be performed years later, if available.

HOW DOES NOMA AFFECT PATIENTS' LIVES?

> Survivors suffer significant aesthetic and functional sequelae, including difficulties feeding, speaking, problems with saliva management, disfigurement, hearing and vision problems.

> The majority of survivors report experiences of social isolation and an impact on their ability to study, work and integrate into the communities they live in.

> Access to surgical units which can manage sequelae of noma is difficult or non-existent in many endemic countries.

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To know more > Watch the short film Surviving noma and visit noma.msf.org

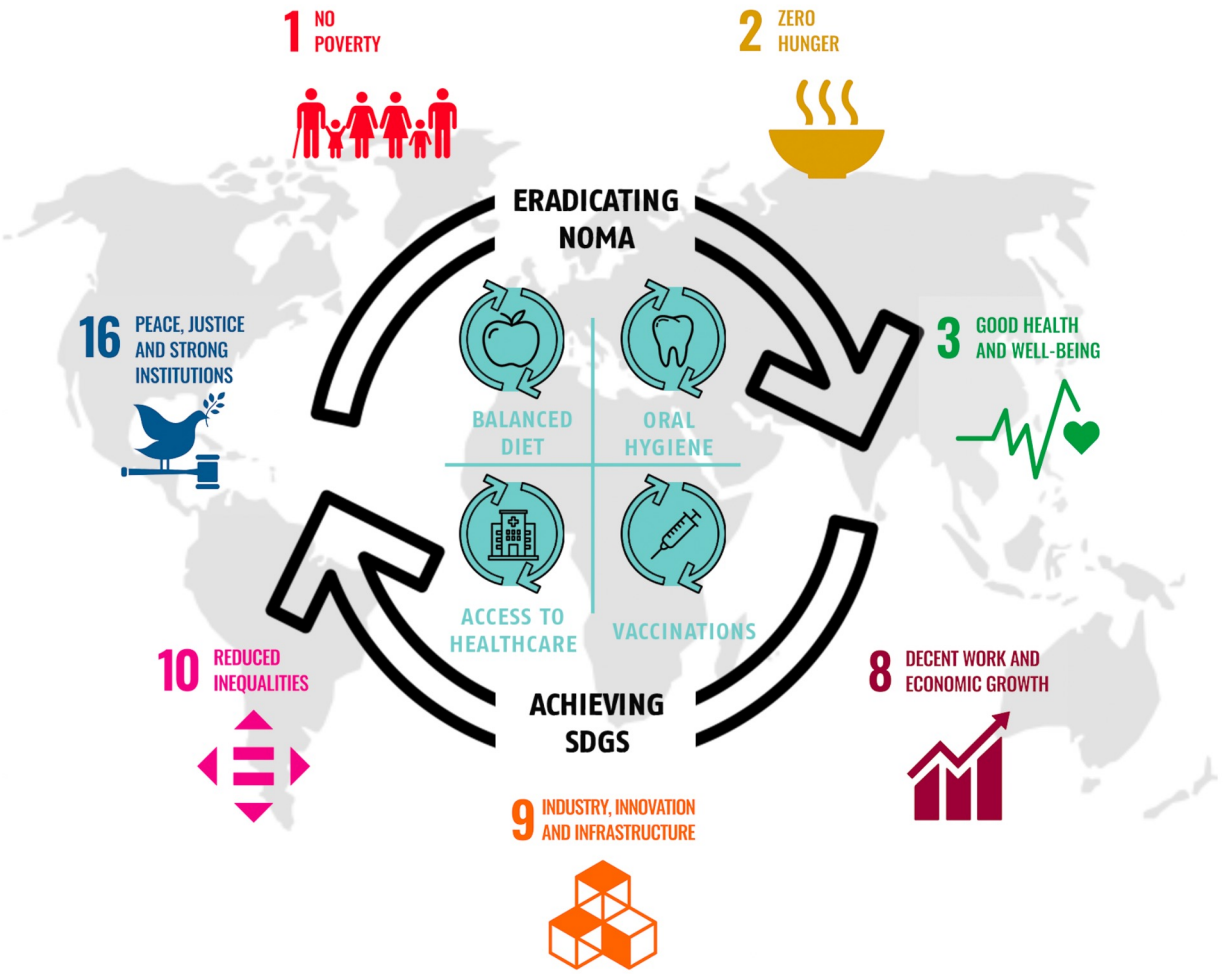
MEDECINS SANS FRONTIERES

PREVENTION & RECOGNITION

Prevention of progression to the irreversible stages of noma is key and should include the following activities:

- aggressive case finding for early detection with well-trained health care providers
- improving access to hard-to-reach communities
- screening for noma by examination of the mouth in ATFCs, OPDs and ITFCs
- recognising the risk factors in your context:
  - Complex socio-economic settings and poverty
  - Severe malnutrition
  - Immunosupression
  - Recent severe infections such as measles, malaria or pneumonia
- educating on dental hygiene and sanitation
- instituting nutritional support, including vitamin A distribution
- updating immunisations

Achieving the Sustainable Development Goals (SDGs) and eradicating noma, one same virtuous circle starting with improving nutrition, hygiene, access to healthcare and vaccination



Infographic: © Chloé Fournier / Inediz

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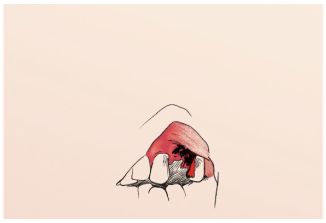
HOW DO YOU DIAGNOSE NOMA?

Noma is diagnosed by examining the oral cavity and looking for any evidence of the following:

REVERSIBLE

WARNING SINAL

Simple gingivitis



STAGE 1 • Necrotising Gingivitis

• Spontaneous gum bleeding • Painful ulceration of the gums or interdental papillae • Halitosis • Excessive salivation

STAGE 2 • Oedema

Extension of the symptoms, plus: • Facial swelling or oedema • Anorexia • Fever • Lymphadenopathy

IRREVERSIBLE

STAGE 3 • Gangrene

• Soft and hard tissue destruction • Well demarcated lesion with area of necrosis • Exposure of teeth and bones • Progression to dry gangrene

STAGE 4 • Scarring

• Progressive scarring
• Trismus can occur

STAGE 5 • Sequelae

This is dependent on where the lesion occurs but can include • Speech problems • Feeding difficulty • Trismus • Salivary leak • Dental issues • Nasal regurgitation

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HOW DO YOU MANAGE NOMA?

> The management of noma depends on the stage at which it is diagnosed. In general, there are three stages in the acute management of noma:

1. Treatment of the bacterial disease with antibiotics and dental hygiene
2. Supportive care with nutrition, hydration and electrolyte replacement
3. Management of underlying immunosuppressive causes

> Patients in the ITFC and ATFCs should be treated and followed closely, especially in the first few days/weeks to ensure that treatment is working and the disease is not progressing.

> **STAGE 1** can be treated in the community with oral antibiotics, buccal hygiene (antiseptic mouthwash and referral to a dentist where possible) with close follow up.

Early antibiotics in community health setting:

Amoxicillin Clavulanic Acid 8:1 PO: 50 mg/kg/dose 2 x/day
+ Metronidazole PO: 15 mg/kg/dose 2x/day **for 14 days**

OR

Amoxicillin PO: 100 mg/kg/dose x2 doses/day
+ Metronidazole PO: 15 mg/kg/dose x 2/day **for 14 days**

> **STAGE 2 AND ABOVE** should be managed in an inpatient setting with IV antibiotics.

Advanced case management in hospitals:

Stage 2 and above should be managed in a hospital setting with IV antibiotics, wound care, nutrition, hydration and electrolyte replacement.

In hospital antibiotics:

Clindamycin IV 10 mg/kg/dose every 6 hours
+ Gentamycin slow IV: 5mg/kg/day **for 5 to 7 days**

OR

Amoxicillin / Clavulanic acid IV 50 mg/kg/dose every 6 hours **for 14 days**
+ Gentamycin slow IV: 5mg/kg/day **for 5 to 7 days**
+ Metronidazole slow IV: 15 mg/kg/dose every 12 hours **for 14 days**