

Chapter 10: The Intensified Smallpox Eradication Programme (1967-1980)

The **Intensified Smallpox Eradication Programme**, launched in **1967**, was a globally coordinated effort led by the **World Health Organization (WHO)** to eliminate smallpox. The disease was well-suited for eradication due to the **highly effective and stable vaccine**, clear identification of cases through the **distinctive rash**, and the **slow transmission rate** that allowed for targeted containment. However, achieving eradication required **global cooperation**, sustained funding, and strong surveillance measures.

Strategic plan and WHO's role

WHO was instrumental in coordinating the eradication programme, though it had **no direct authority** to compel countries to participate. Instead, it relied on **moral persuasion** and global consensus-building. The strategy involved:

1. **Mass vaccination campaigns** aimed at reaching at least **80% of the population**.
2. **Surveillance and containment** to rapidly detect and isolate cases, preventing outbreaks.
3. **Flexible implementation**, allowing adjustments based on country-specific challenges.
4. **Continuous research and improvement** of vaccines, surveillance methods, and case detection.

Challenges in global coordination

Despite WHO's leadership, the programme faced **significant challenges**:

- **Limited funding**: WHO had difficulty securing voluntary contributions, and resources often fell short.
- **Vaccine shortages**: Despite appeals, **donated vaccine supplies** were often insufficient.
- **Political instability**: Civil wars, famines, and frequent government changes disrupted eradication efforts in several regions, including **Ethiopia, Nigeria, Pakistan, and Uganda**.
- **Regional disparities**: WHO's ability to communicate and coordinate efforts varied, with some regional offices being slow to prioritize smallpox eradication.

Surveillance, research, and vaccine improvements

WHO established a robust **global surveillance system**, tracking cases and identifying high-risk areas. Research focused on:

- **Improving vaccine production and distribution**.
- **Developing new vaccination devices**, such as the **bifurcated needle**, which simplified vaccine delivery.
- **Distinguishing orthopoxviruses**, ensuring that cases were properly identified.

Final eradication efforts (1970-1980)

By the **early 1970s**, **India, Bangladesh, and Ethiopia** were among the last strongholds of smallpox. Intensive **search-and-containment** strategies were deployed, involving **cash rewards for case reporting** and **door-to-door vaccination campaigns**. By **1977**, the last endemic case was recorded in **Somalia**, marking the end of naturally occurring smallpox.

Global certification and legacy

Following a **three-year global monitoring process**, WHO **certified smallpox eradication in 1980**, making it the **first disease eradicated by human effort**. The success of this programme set a precedent for future disease eradication efforts, such as **polio and measles**.

Conclusion

The **Intensified Smallpox Eradication Programme** was a landmark achievement in global health. Despite **funding shortages, political instability, and logistical hurdles**, **WHO's leadership, scientific advancements, and international collaboration** led to the **complete eradication of smallpox**, proving that large-scale disease elimination is possible through **coordinated global action**.