USING SCIENCE, TECHNOLOGY AND INNOVATION TO CLOSE THE GAP ON SDG3, GOOD HEALTH & WELL-BEING

UN CSTD Secretariat
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Presentation Outline

1. Applications of STI
   - Primary healthcare
   - Poverty-related diseases
   - Health emergencies and infectious diseases

2. Frontier technologies for healthcare innovation

3. National innovation systems for healthcare

4. Global cooperation
   - Strengthening national STI systems
   - Equitably sharing benefits of healthcare innovation
   - Multilateral cooperation
Maternal and child health
STI for diagnosis and treatment of preventable and treatable diseases.

Gender-responsive innovation
Digital technologies for gender-sensitive health information dissemination.

Traditional medicine sector
Traditional medicine and indigenous knowledge systems are important parts of health service delivery in many countries.
Poverty-related diseases

Remote Sensing
Mapping exercises for Infectious diseases, including meningitis and wild polio, among others

Clinical Trials
European and Developing Countries Clinical Trials Partnership (EDCTP) which target HIV/AIDS, tuberculosis and malaria

Private Sector
Converting major laboratories for diseases in the Global South

Accelerating R&D
Multilateral efforts to accelerate R&D for neglected tropical diseases.

By the end of the first decade of the 2000s, only 10% of research was devoted to 90% of global disease burden
Health emergencies and infectious diseases.

Diagnostics (general and COVID-19)
- AI-powered imaging solutions
- Mobile app-based diagnostic tools
- Early Warning and Disease Monitoring
  - Tele-epidemiology
- Remote sensing and EO data
- Risk analytics for COVID-19
- Contact tracing
- Digital health certificates
- Public health data dashboards
- Climate-induced public health threats
- Therapeutic and vaccine development
Frontier Technologies

- Artificial intelligence and robotics
- Machine learning and data science
- Synthetic biology and gene editing
- Blockchain
- Drones (UAS/UAV)
- 3-D printing
- Space-based technologies
- Nanotechnology
- 5G technologies
- IoT devices and drones
Frontier technologies: Critical considerations

DIGITAL COMPETENCIES
Health workforce with digital skills and STI competencies

BRIDGING DIGITAL DIVIDE
Extending global internet access (53% in 2019) for digital health

REGULATION & GOVERNANCE
Appropriate measures to ensure safety, accessibility, privacy/security
National STI Systems and Health

- Strengthening healthcare innovation capacities
- Building science/talent base
- Commercializing healthcare R&D into products/services
- Promoting whole-of-government approach
GLOBAL COOPERATION

Supporting National STI Ecosystems

DIGITAL HEALTH CAPACITIES
Build capacities for digital health at the national level

SCIENTIFIC NETWORKS
Shape global scientific/R&D networks (e.g., recent global cooperation on COVID-19)

CAPACITY DEVELOPMENT
Support human capacity development in STI for health.

HEALTHCARE INDUSTRY
Strengthen STI-intensive healthcare industries, esp. in developing countries.
GLOBAL COOPERATION

Healthcare tech for all

Collaborative arrangements, financing, and public-private partnerships to make healthcare technologies accessible for all.

Multilateral Cooperation

UN’s role in shaping global norms and frameworks on health innovation.
Thank you!

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