

Looking Beyond Traditional Public Health Cadres

Exploring Interdisciplinary
Approaches for a Resilient Public
Health System

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Public Health Institutes of the World

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Introduction

Public health has traditionally relied on medical and epidemiological expertise

Gradually moving beyond to Dental, Veterinary and other pertinent fields

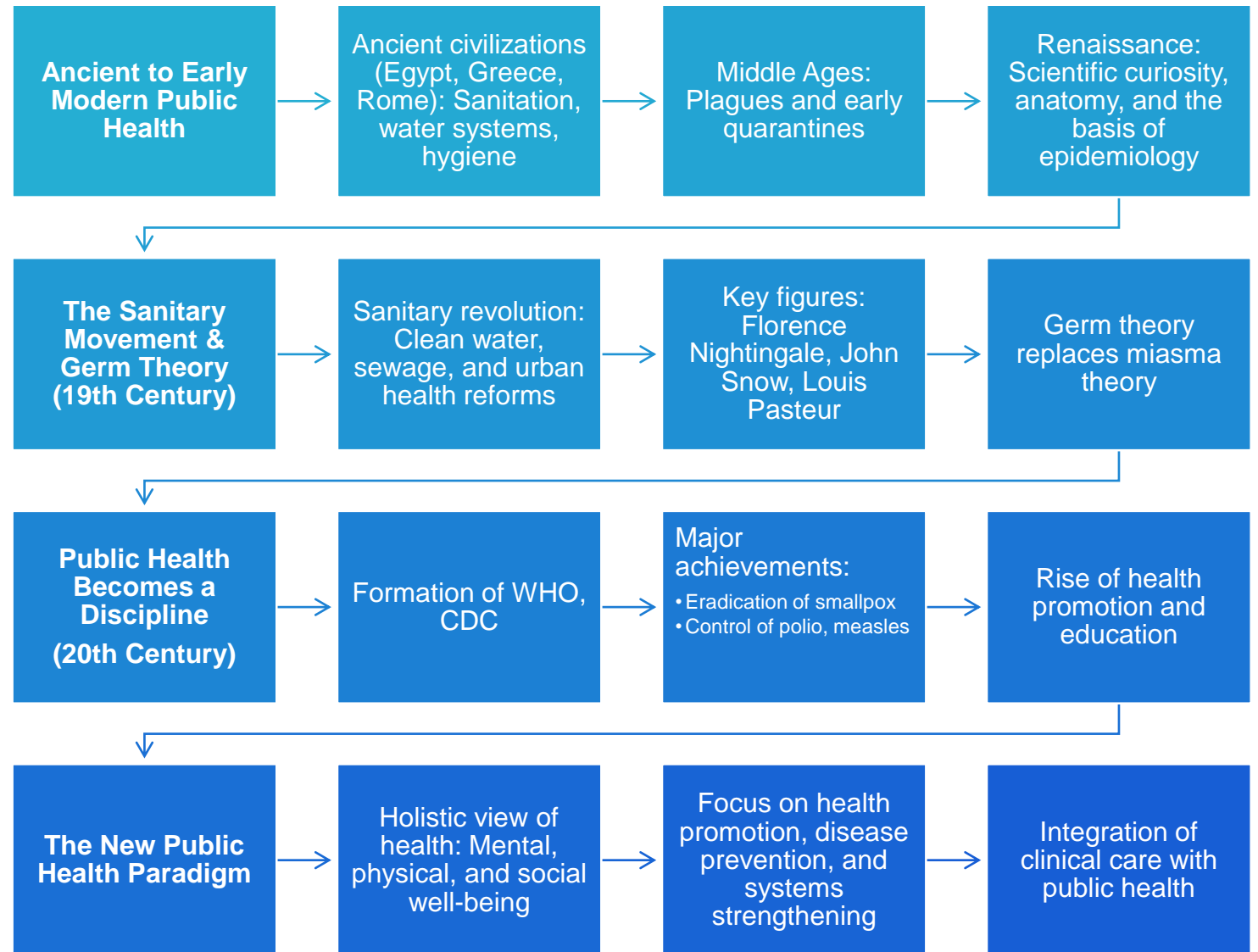
However, emerging global challenges require broader interdisciplinary approaches

We explore expanding the scope of public health cadres

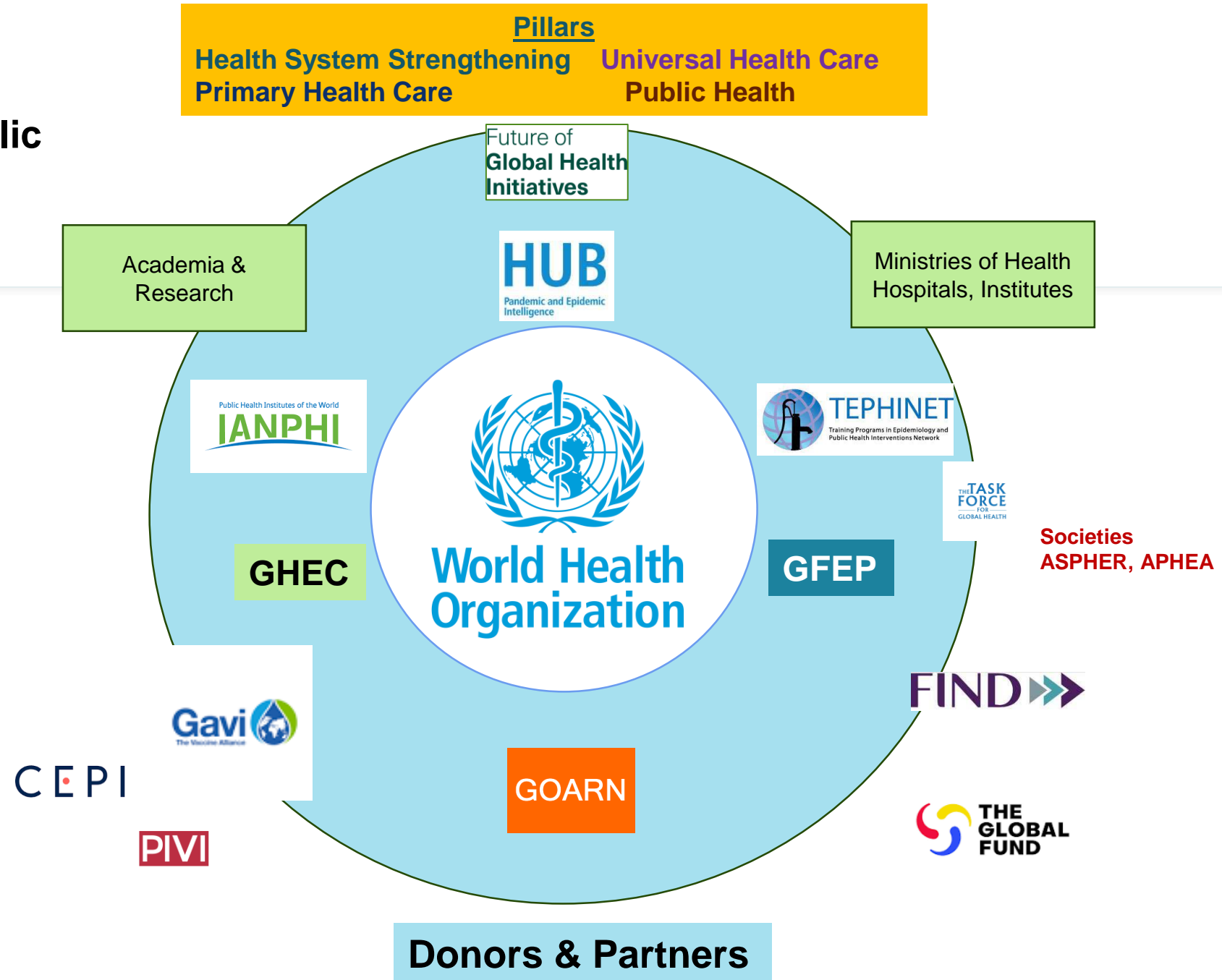
Essential Public Health Functions



Public Health through Ages



Integrated Public Health



Changing Scenarios

Globalization & Emerging Challenges

- Rapid travel and disease spread (e.g., SARS, COVID-19)
- Climate change and ecological threats
- Zoonotic diseases and One Health

Health Systems and Policy

- Alma-Ata Declaration: Health for All
- Health in All Policies (HiAP)
- Role of NGOs, public-private partnerships

Health Equity & Social Justice

- WHO Commission on Social Determinants of Health (2008)
- Inequities between and within countries
- Social justice as a core tenet

Looking Forward

- Genetic epidemiology and precision medicine
- Health literacy and community engagement
- Sustainable public health systems for the future

Global Health Challenges



Emerging infectious
diseases



Antimicrobial
resistance



Climate change and
health

Resource Limitations



The diagram consists of three identical rectangular boxes arranged horizontally. Each box has a thick green top bar and a light green background. The text is centered in black, uppercase letters. The first box is labeled 'FUNDING CONSTRAINTS', the second 'HUMAN RESOURCE SHORTAGES', and the third 'INFRASTRUCTURE NEEDS'.

FUNDING
CONSTRAINTS

HUMAN
RESOURCE
SHORTAGES

INFRASTRUCTURE
NEEDS



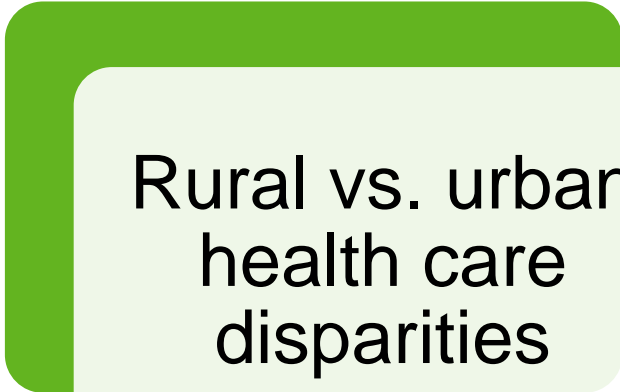
Health Inequality & Accessibility



Disparities in
health access

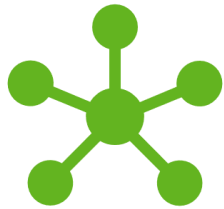


Socioeconomic
barriers



Rural vs. urban
health care
disparities

Technological Challenges



Integration of new
technologies



Data privacy and security
concerns



Keeping up with rapid
technological advancements

Policy and Regulation



GOVERNMENT POLICY
CHANGES



COMPLIANCE WITH
HEALTH REGULATIONS



INTERNATIONAL HEALTH
LAW IMPLICATIONS

Emerging Health Threats

Non-communicable diseases

Mental health

Aging populations

Communication Barriers



Misinformation and public
trust issues



Language and cultural
barriers



Effective health
communication strategies

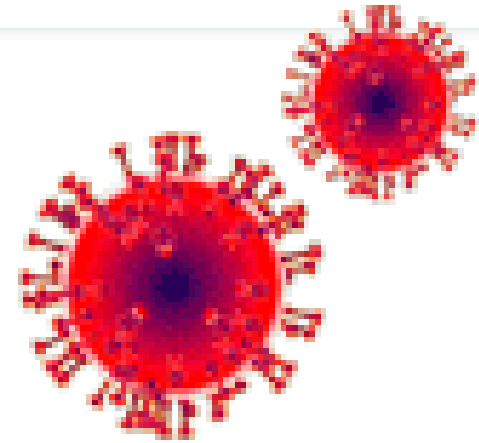
New Public Health

- Public health has evolved as a multidisciplinary field
 - Use of basic and applied science
 - Education
 - Social sciences
 - Economics
 - Management
 - Communication skills
- Promoting the welfare of the individual and the community



Why Look Beyond Traditional Cadres?

- COVID-19 Pandemic experience
- Emerging health threats require diverse expertise
- Digital transformation demands new skill sets
- Interdisciplinary collaboration enhances system resilience
- Addressing health inequities requires multi-sectoral approaches
- Creating the next generation of non-clinical public health workforce



Expanding Public Health Workforce



Data Scientists & AI Experts: For predictive analytics and disease surveillance



Behavioral Scientists: To address social determinants of health



Environmental & Climate Scientists: Tackling climate-related health issues



Pharma: Rapid expansion and discoveries, clinical trials, etc



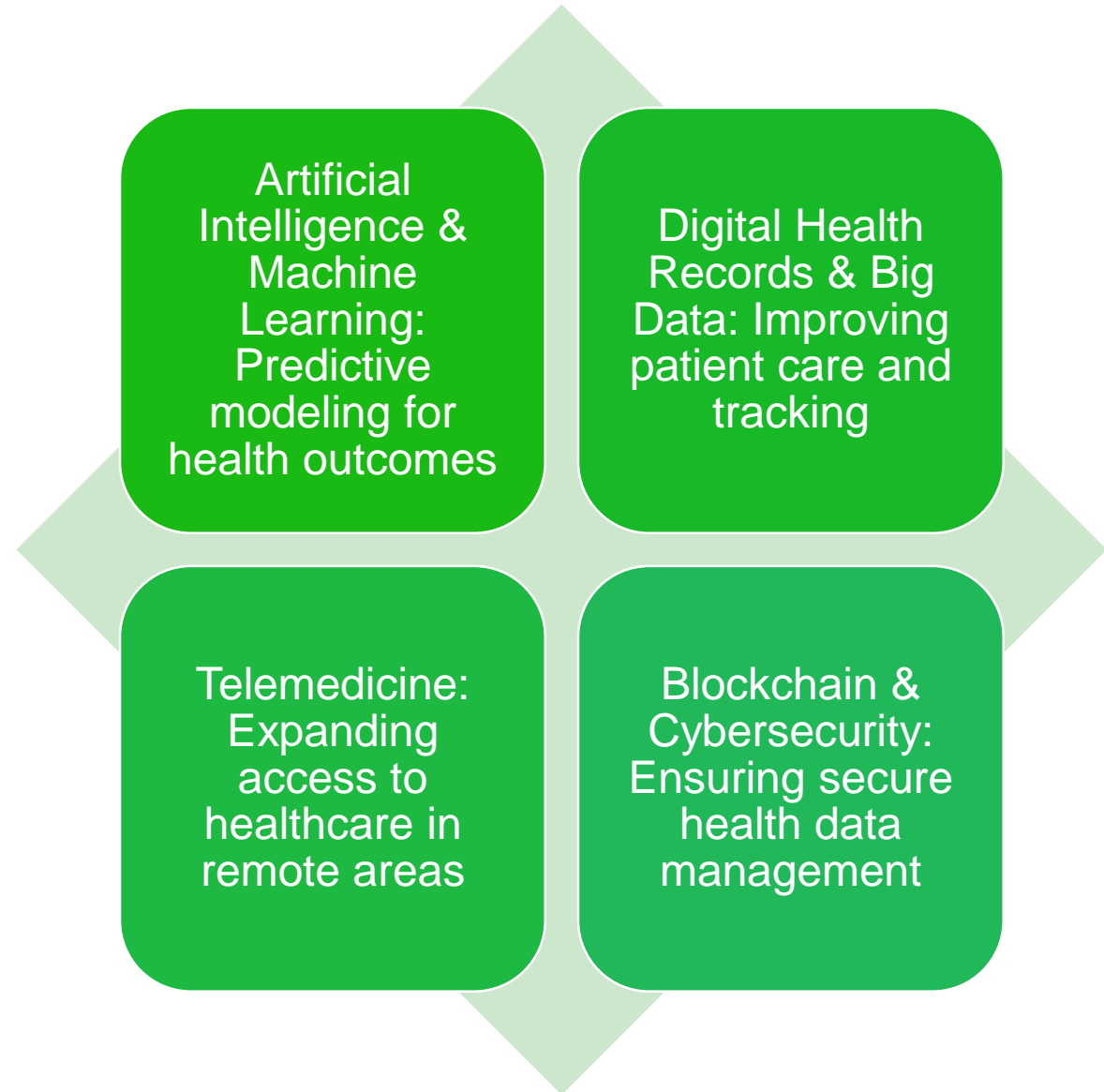
Policy & Governance Experts:
Strengthening health policies

Science Diplomacy
Economic



Communication & Media Specialists: Combatting misinformation

Role of Digital Technologies



Case Studies



WHO Digital Health Initiatives
Use of AI in epidemic predictions



One Health Approach:
Integrating human, animal, and
environmental health



Pandemic Response:
Leveraging tech professionals and data
scientists



Community-Based Solutions:
Engaging non-traditional actors in health
advocacy

Challenges & Barriers

Resistance to change within traditional systems

Limited training programs for non-traditional health professionals

Data privacy and ethical concerns in digital health

Funding constraints for interdisciplinary initiatives

Inculcating interest of non-clinical professionals in public health: maintaining, opportunities

Way Forward



Create next generation of non-clinical public health workforce



Encourage cross-disciplinary training programs



Integrate digital and behavioral sciences into public health curricula



Foster collaboration between health, tech, and policy sectors



Invest in digital and AI-driven health solutions

Communities of Shared Practice



Cross-Disciplinary Collaboration:

Public health challenges are often complex and multifaceted, requiring collaboration among professionals from various disciplines



Continuous Learning:

These communities provide a space for continuous learning, allowing professionals to stay updated on the latest research, technologies, and methodologies

Conclusion



Public health must evolve beyond traditional roles to address modern challenges



Interdisciplinary approaches can enhance health system resilience and equity



Strategic investments in technology and capacity building are essential for the future



Consolidation

Thanks