

# COLLABORATION AND PARTNERSHIP FOR HEALTHY PEOPLE IN A HEALTHY WORLD



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**President and Chief Executive Officer**

# COMMITMENTS TO IMPROVE HEALTH

*Globally and within  
China*



健康中国行动  
Healthy China Initiative

## REACHING THESE GOALS WILL...

- Extend productive lives
- Reduce disability
- Reduce health care costs
- Increase economic productivity
- Strengthen global partnerships and collaboration

**Achieving these goals will require concerted effort...**

**and will benefit from global partnerships that share lessons and best practices**

## SIX PIVOTAL AREAS

1. **Reduce smoking** – no health policy will succeed without reducing tobacco use
2. **Reduce heart attack and stroke** – the leading killers in China and worldwide
3. **Improve primary health care and make it central to the health system** – no health system will be effective or cost-efficient without strong primary health care
4. **Control antimicrobial resistance** – without better stewardship of antibiotics, we could be in a post-antibiotic world
5. **Clear the air** – air pollution is a major killer globally and in China
6. **Strengthen public health** – every country needs to be able to find and stop outbreaks promptly and prevent them whenever possible

# 1. TOBACCO USE DAMAGES VIRTUALLY EVERY PART OF THE BODY – AND CAUSES MUCH DISABILITY AND SUFFERING

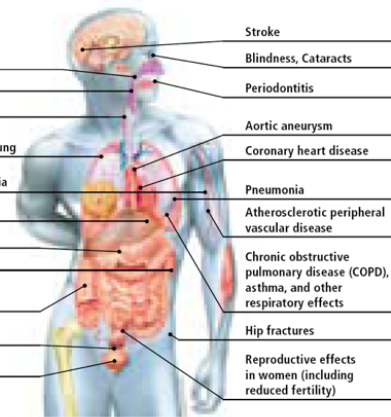
## Smoking

### CANCERS

Larynx  
Oropharynx  
Oesophagus  
Trachea, bronchus or lung  
Acute myeloid leukemia  
Stomach  
Pancreas  
Kidney and Ureter  
Colon  
Cervix  
Bladder

### CHRONIC DISEASES

Stroke  
Blindness, Cataracts  
Periodontitis  
Aortic aneurysm  
Coronary heart disease  
Pneumonia  
Atherosclerotic peripheral vascular disease  
Chronic obstructive pulmonary disease (COPD), asthma, and other respiratory effects  
Hip fractures  
Reproductive effects in women (including reduced fertility)



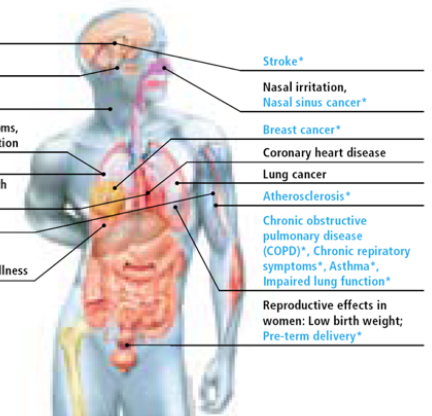
## Second-hand smoke

### CHILDREN

Brain tumours\*  
Middle ear disease  
Lymphoma\*  
Respiratory symptoms, Impaired lung function  
Asthma\*  
Sudden Infant Death Syndrome (SIDS)  
Leukemia\*  
Lower respiratory illness

### ADULTS

Stroke\*  
Nasal irritation, Nasal sinus cancer\*  
Breast cancer\*  
Coronary heart disease  
Lung cancer  
Atherosclerosis\*  
Chronic obstructive pulmonary disease (COPD)\*, Chronic respiratory symptoms\*, Asthma\*, Impaired lung function\*  
Reproductive effects in women: Low birth weight; Pre-term delivery\*



\* Evidence of causation: suggestive  
Evidence of causation: sufficient



**mpower**

**Monitor** tobacco use  
and prevention policies

**Protect** people from  
tobacco smoke

**Offer** help to quit  
tobacco use

**Warn** about the dangers  
of tobacco

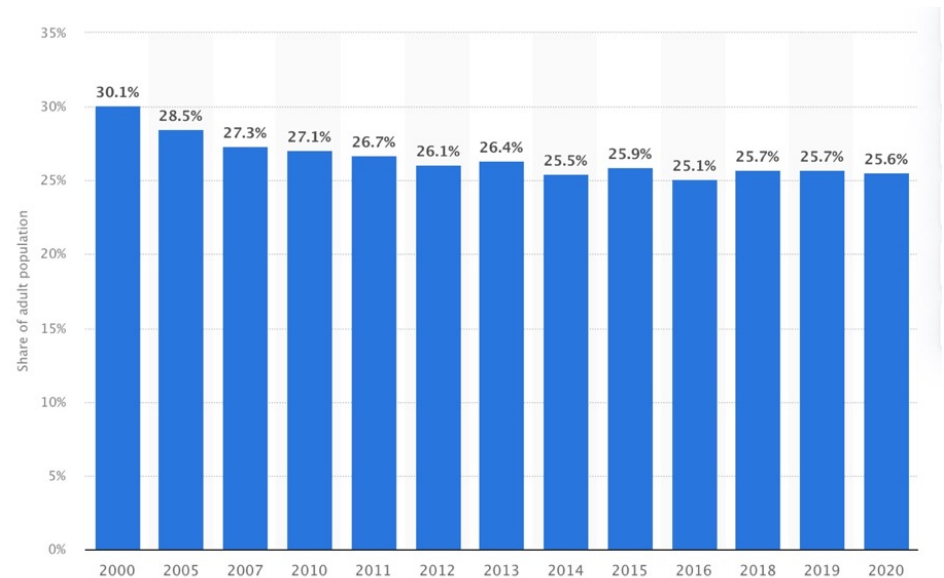
**Enforce** bans on tobacco  
advertising, promotion and sponsorship

**Raise** taxes on tobacco

# TO FURTHER REDUCE SMOKING, CHINA CAN...

- Increase tobacco taxes
- Enforce smoking bans in all public places, including restaurants, bars, offices, and health facilities
- Extend advertising and marketing bans to event sponsorships and point-of-sale promotions
- Strengthen health warnings on cigarette packs with graphic images
- Improve public understanding of the harms of smoking and second-hand smoke exposure

## Smoking prevalence in China is not decreasing



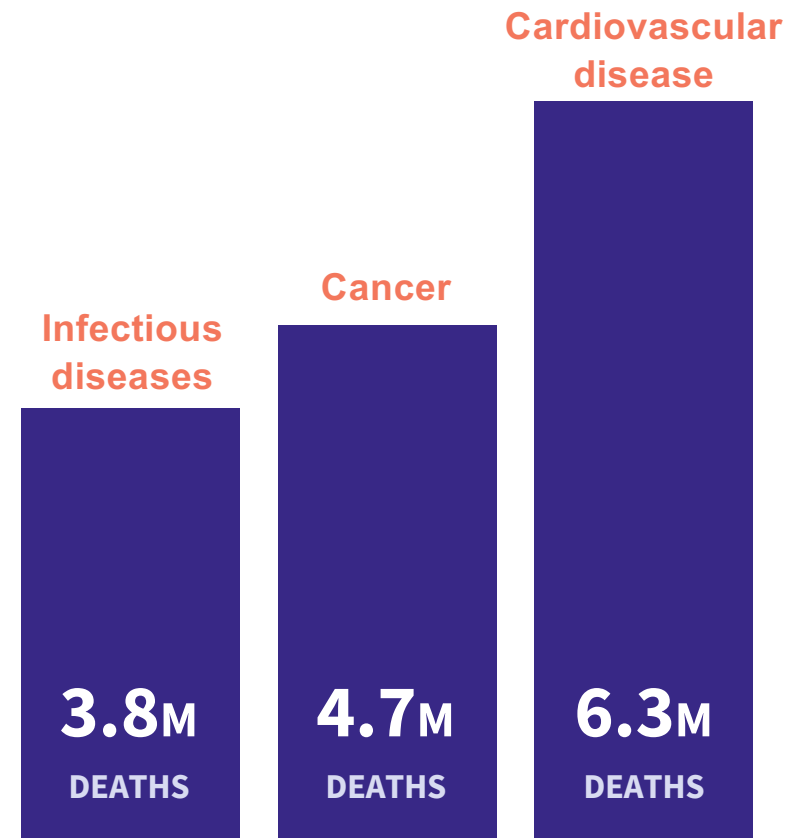
Source: Statista

## 2. REDUCE HEART ATTACK AND STROKE

Cardiovascular disease  
is the world's leading  
killer – and #1 cause of  
premature death

*Most of these deaths  
can be prevented*

*Global deaths each year  
among people 18-70 years old*

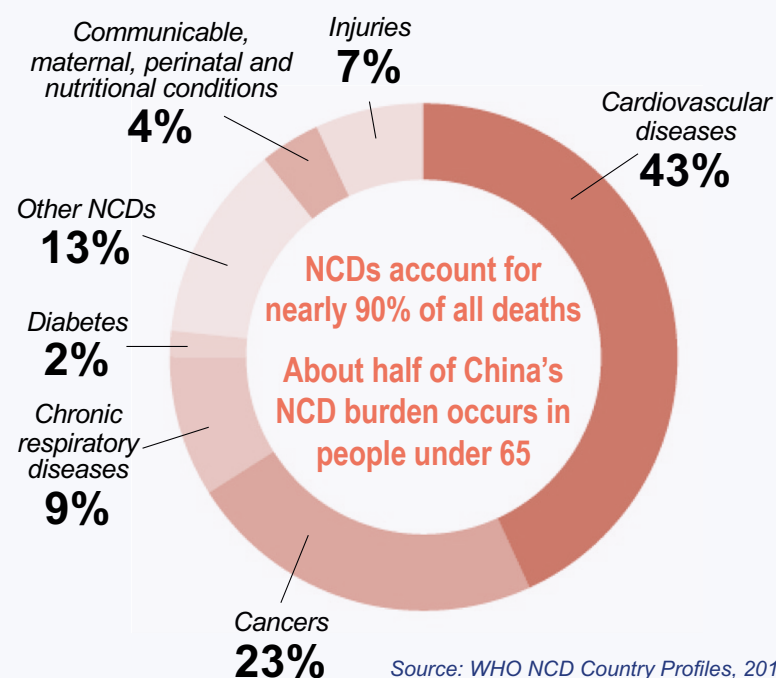




# CARDIOVASCULAR DISEASE: CHINA'S LEADING KILLER

*Also leads to costly complications such as stroke, dialysis & heart problems*

- CVD prevalence in China increasing continuously since 2006
- Nearly 1/3 of CVD deaths in China are among people younger than age 70
- 23% of adults in China (245 million) now have hypertension (3x higher than 40 years ago)
- 6.6% of health-care costs in China directly related to hypertension
- 3.9 million strokes in China a year
  - China has >20 million living stroke survivors
  - >2 million stroke-related deaths every year



Gu D et al.; *The Cost-Effectiveness of Low-Cost Essential Antihypertensive Medicines for Hypertension Control in China: A Modelling Study.* PLoS Medicine, 2015.

Ma et al. *China Cardiovascular Diseases Report 2018: An Updated Summary.* Journal of Geriatric Cardiology, 2020.

*Report on Cardiovascular Health and Diseases in China 2021: An Updated Summary.* Biomedical and Environmental Sciences (China CDC), 2022.



# **STOPPING HEART DISEASE IS A WINNABLE BATTLE**

- End the tobacco epidemic
- Reduce air pollution
- Improve healthfulness of food, including trans fat elimination and sodium reduction
- Treat hypertension well
- Promote physical activity
- Reduce harmful alcohol use

# REDUCING SALT CONSUMPTION SAVES LIVES

*3 million deaths each year worldwide from excess sodium consumption*

Excessive salt intake increases blood pressure

99% of adults are above the WHO recommendation of 5g of salt per day

1.6 million lives could be saved each year by reducing sodium intake by 30%

## Sodium reduction strategies work



Front of package warnings: Chile model



Low sodium salts, industry engagement



Sodium targets for packaged food



Government buying standards



Educational approaches

# HYPERTENSION CONTROL CAN SAVE MORE LIVES THAN ANY OTHER HEALTH CARE INTERVENTION

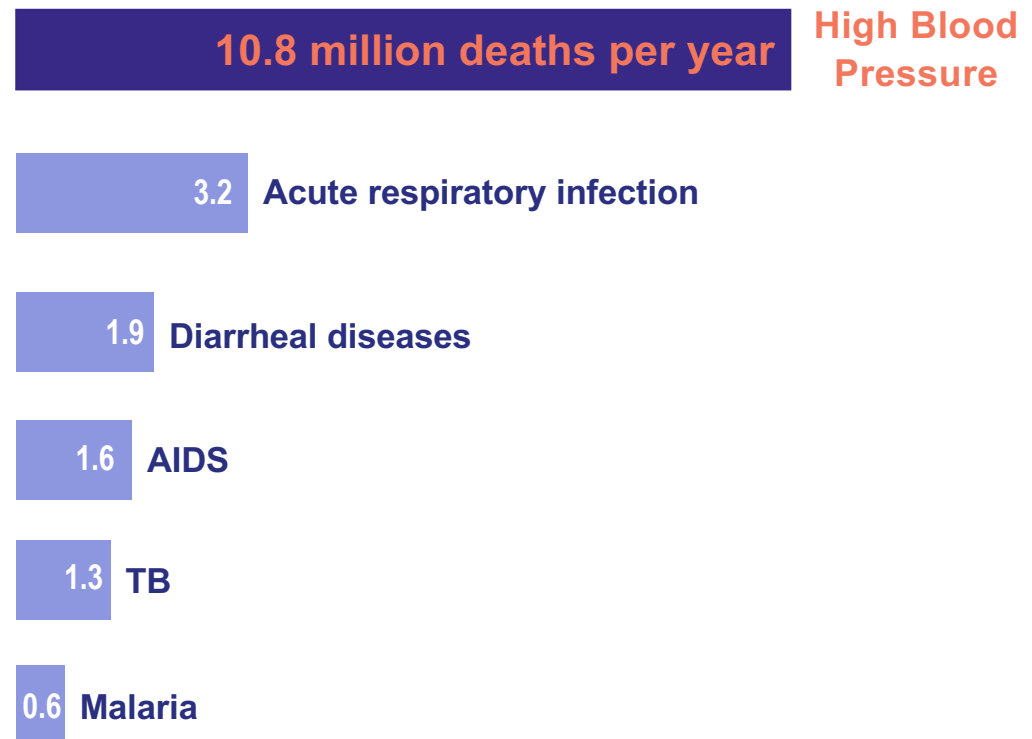
*Hypertension kills more people than any other condition – and more than all infectious diseases combined*

*More people die from high blood pressure in China than in any other country*

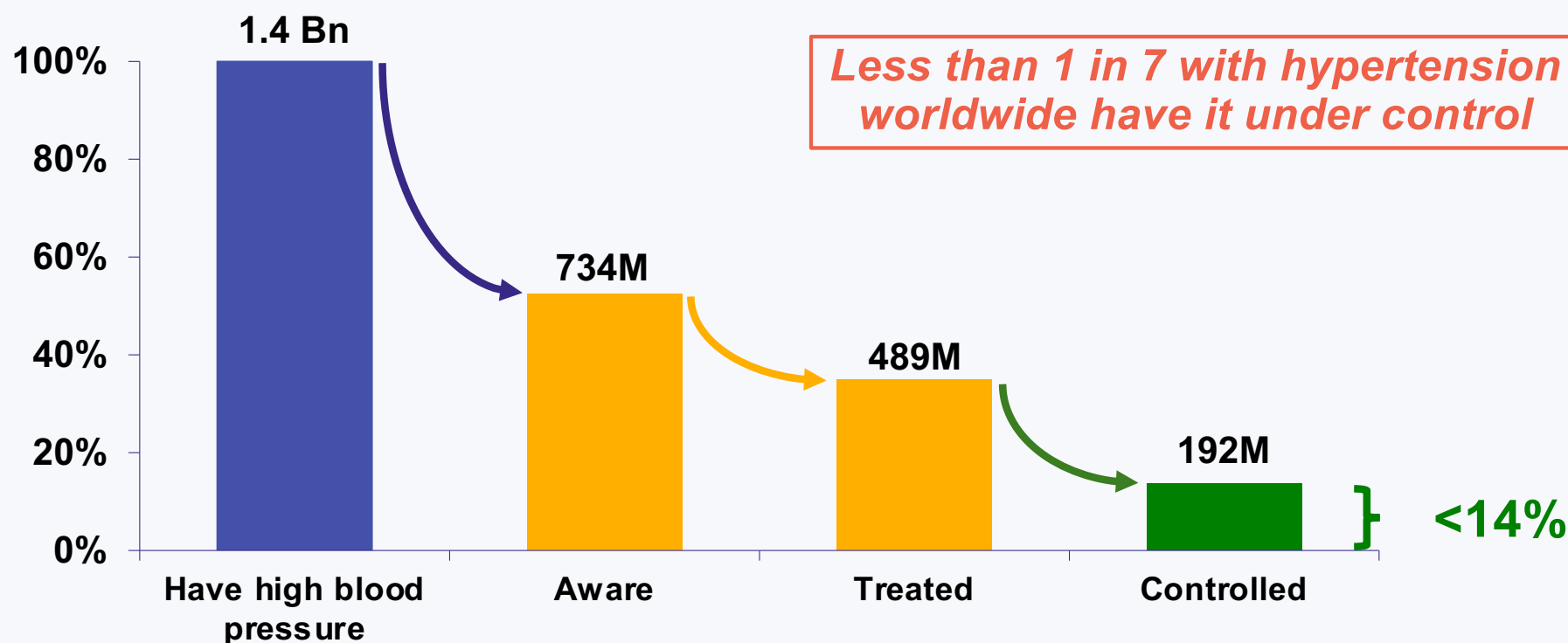
Every 20 mm increase in systolic blood pressure from 115/75 **doubles** vascular mortality at ages 35-69

LEWINGTON S. ET AL. LANCET. 2002;360:1903-1913.

Hypertension is the leading risk factor for preventable deaths worldwide

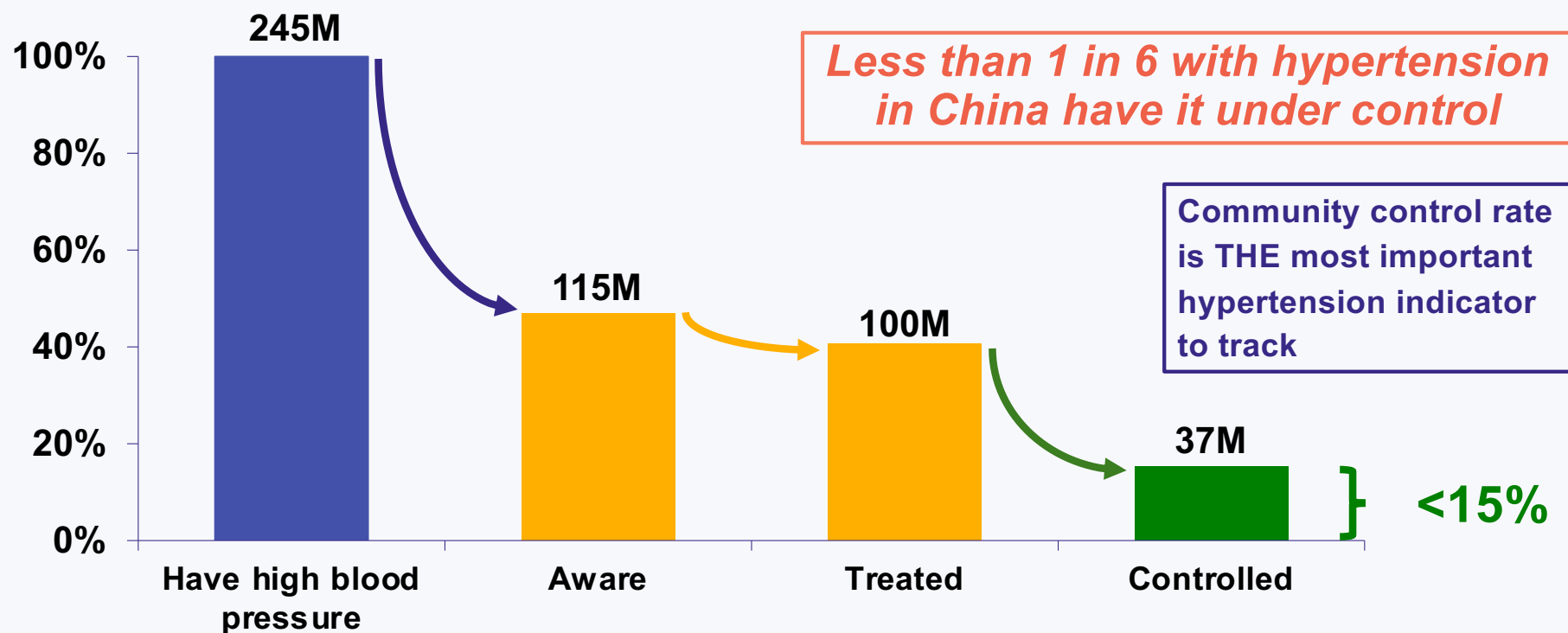


# MOST PEOPLE WITH HYPERTENSION GLOBALLY DO NOT HAVE IT UNDER CONTROL

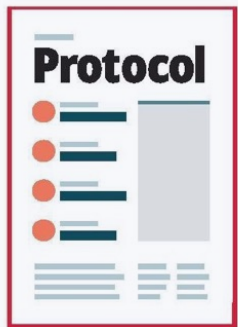


Mills KT et al. *Circulation*. 2016 Aug 9;134(6):441-450.

# LESS THAN 1 IN 6 PEOPLE IN CHINA WITH HYPERTENSION HAVE IT UNDER CONTROL

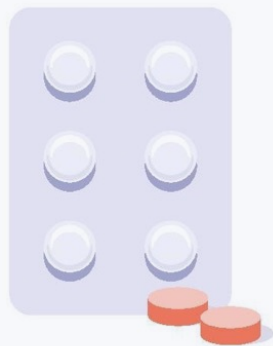


# WHO-HEARTS APPROACH TO EFFECTIVE HYPERTENSION CARE



## Simple, Practical Protocol

Manage other chronic conditions; improve evidence-based care; reduce costs



## Medication and Equipment Supply

Improve purchasing and supply chain management



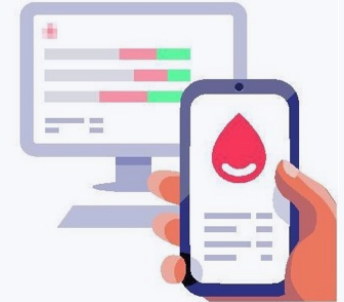
## Team-Based Care

Applicable to wide range of chronic health conditions



## Patient-Centered Services

Improve patient support; access to and confidence in primary care; reduce reliance on hospital care; reduce financial and other barriers



## Information Systems

Create feedback loops applicable to other conditions; strengthen data-driven culture of accountability and quality improvement

### 3. ROBUST PRIMARY HEALTH CARE

50 years of global  
rhetoric but limited  
progress in most  
countries

#### *Primary health care should be*

**Central to health care system and focused on improving health**

- Accountable, high-quality primary health care is foundational to the public's health
- Staffed by well-paid multi-disciplinary teams, enabling doctors to manage larger patient panels where their skills are most needed
- Patient-centered with convenient, affordable, culturally competent care

**Equipped to manage and prevent infectious disease**

- Central to epidemic detection and response – diagnosis, treatment, vaccination
- Resilient individuals, families, communities, especially with improved heart health



# EPIDEMIC-READY PRIMARY HEALTH CARE

- Central to epidemic detection and response, including diagnosis, treatment, and vaccination
- High-impact care including control of hypertension, the world's leading cause of death
- Must be sufficiently resilient and have specific infrastructure and procedures so it can continue core services during pandemics and other disruptions

Frieden TR et al. *Lancet Public Health* 2023;8:e383-390.

## Panel: Components of epidemic-ready primary health care

### Diagnosis and reporting

- Prompt detection and reporting of notifiable diseases and unusual health events as a result of a high index of suspicion
- Access to point-of-care diagnostics and a quality-assured and timely laboratory network

### Treatment and care

- Maternal, reproductive, infant, and child health care
- Treatment of common symptomatic conditions (eg, cough, rash, diarrhoea, pain) so that patients and their families trust and can rely on their provider
- Treatment of common infectious diseases (eg, sexually transmitted infections, tuberculosis, HIV, malaria, pneumonia)
- Provision of mental health and psychosocial services
- Detection, effective treatment, and monitoring of hypertension, diabetes, and cancer, thereby increasing the health resilience of the population

### Prevention and response

- Vaccination that reaches all or nearly all patients for which each facility is responsible
- Surveillance systems which support timely detection, care, vaccination, and containment of outbreaks, appropriately targeted to populations at highest risk

### Staffing

- Adequate training including public health competencies, compensation, protection, and support of all facility staff
- Community health workers contribute to task-sharing, team-based care, and community outreach
- Designated focal points at each facility for infection prevention and control, and for disease reporting and coordination with public health agencies

### Infrastructure

- Stable and reliable logistics and supply chains to ensure ready availability of medications, diagnostics, and personal protective equipment
- Sufficient laboratory system capacity to promptly identify pathogens and facilitate rapid diagnosis and feedback to clinicians
- Sufficient and clean water and sanitary waste disposal services

- An effective information system for patient care and programme management which tracks the community-wide impact of clinical services among all people for whom each facility is responsible

### Infection prevention and control

- A designated individual who serves as a focal point for infection prevention and control and follows national guidelines for administrative, operational, and personal protection policies
- Systematic monitoring and improvement of infection prevention and control, including tracking infections associated with health care among staff and patients

### Continuity of operations

- Specific plan to continue essential services during societal disruption (eg, floods, pandemic, insecurity)

### Linkages

- Effective linkages via referral, including bidirectional information flow, between primary health care and hospital and specialty care
- Community engagement, through both formal and informal means, to increase awareness of and community feedback to each facility
- Connection with available social services to address patient needs

### Close coordination with public health agencies

- Tracking of health indicators for the entire empanelled or geographically assigned population
- Strong linkage between primary health care and public health to facilitate rapid detection, notification, treatment, vaccination, communication, and community engagement
- Partnership to support community-wide interventions to promote healthy environments so that the default choices are the healthy choices (eg, safe water and sanitation, tobacco and alcohol use prevention policies, clean air including through cleaner fuels for cooking and heating, safe streets to reduce road traffic injuries and promotion of walking and cycling, and healthy nutrition)

# PAYING FOR HEALTH CARE – CAPITATION / EMPANELMENT++

- Capitation – set payment to provider team (per patient per month or year)
- Should be basis of primary health care financing
  - Requires empanelment, registration, gatekeeping, defining bundle of services, and ideally risk adjustment to adjust for older/higher risk populations
  - Goal for long-term savings/sharing from reduced hospital costs and improved health
  - Team-based care
  - Very rare in LMICs
- The first plus
  - + Fixed funding for infrastructure costs, more in rural and poor urban areas
- The second plus
  - + Carefully designed incentives to improve quality and health impact – start with hypertension control

# ACHIEVING EPIDEMIC-READY PRIMARY HEALTH CARE: **MONEY MATTERS MOST!**

- Fundamental shift in health care governance and financing
- Primary health care needs both more money and better governance; best practices include
  - Empanelment with capitation
  - Well funded primary health care provided by integrated teams of healthcare workers
  - Incentive for patients to go to primary health care – including preferential treatment when hospital care needed
  - Incentive for providers to maximize health, not visits – particularly through control of blood pressure
- Progress only possible through
  - Understanding who benefits and loses from stronger primary health care
  - Effective coalition-building that begins with existing organizations and institutions
  - Strategic advocacy to influence policy makers
- Progress likely to be stepwise and incremental, advancing where and when opportunity arises
  - **and where societal leaders prioritize improving the health of people over the institutional and economic interests of health-related organizations**

## 4. ANTI-MICROBIAL RESISTANCE

*A top global public health threat*

### Factors responsible

Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.



Over-prescribing of antibiotics



Patients not finishing their treatment



Over-use of antibiotics in livestock and fish farming



Poor infection control in hospitals and clinics



Lack of hygiene and poor sanitation



Lack of new antibiotics being developed

Source: WHO.

# MODERN MEDICINE IS AT RISK

- Loss of effective antibiotic treatment could make routine infections deadly
- Patients who need specialized care such as cancer treatment will be at highest risk
- Need to act now or even drugs of last resort will soon be ineffective

***We risk turning the clock back to a time  
when simple infections could kill***

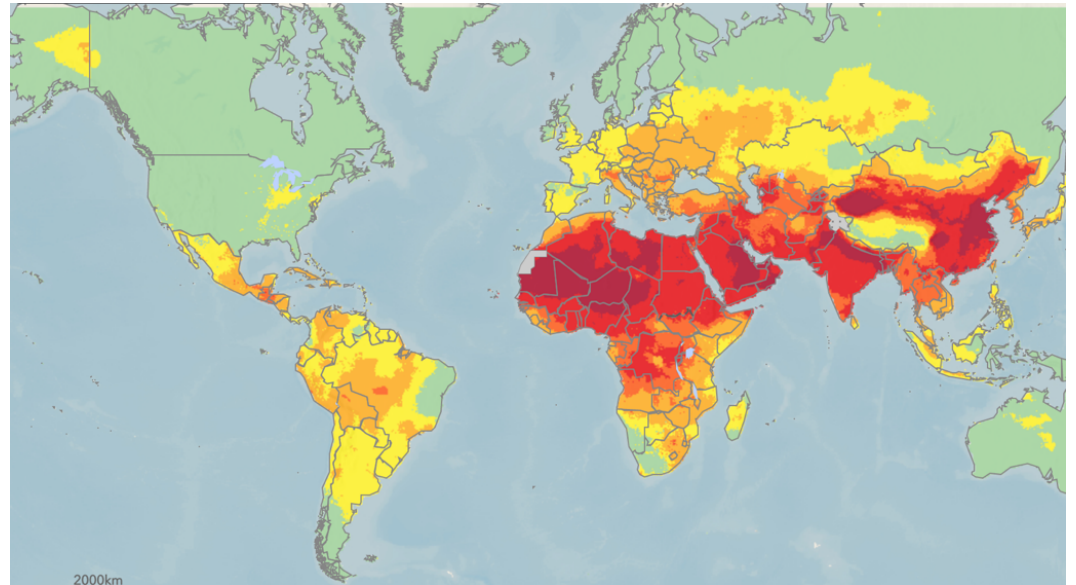
# WE CAN DELAY, AND EVEN IN SOME CASES REVERSE, THE SPREAD OF ANTIMICROBIAL RESISTANCE

Find it faster and more completely in	Prevent it with
<ul style="list-style-type: none"><li>• Hospitals</li><li>• Nursing homes</li><li>• Community</li><li>• Animals and food</li></ul>	<ul style="list-style-type: none"><li>• Stewardship</li><li>• System-wide infection control</li><li>• Vaccination</li><li>• Improved treatment</li></ul>
Stop it faster	Innovate for new
<ul style="list-style-type: none"><li>• Surveillance and reporting</li><li>• Outbreak control</li><li>• Information sharing among facilities</li><li>• Laboratory capacity and networks</li></ul>	<ul style="list-style-type: none"><li>• Antibiotics and leverage microbiome</li><li>• Diagnostics</li><li>• Infection control</li><li>• Vaccines</li></ul>

## 5. AIR POLLUTION

The world's worst air quality stretches from the Sahara Desert to eastern China

### *PM2.5 particulate concentrations*



Source: WHO, 2017.

Ambient (outdoor) air pollution is estimated to have caused 4.2 million premature deaths worldwide in 2019.

Household (indoor) air pollution is associated with an additional 2.5 million premature deaths annually.

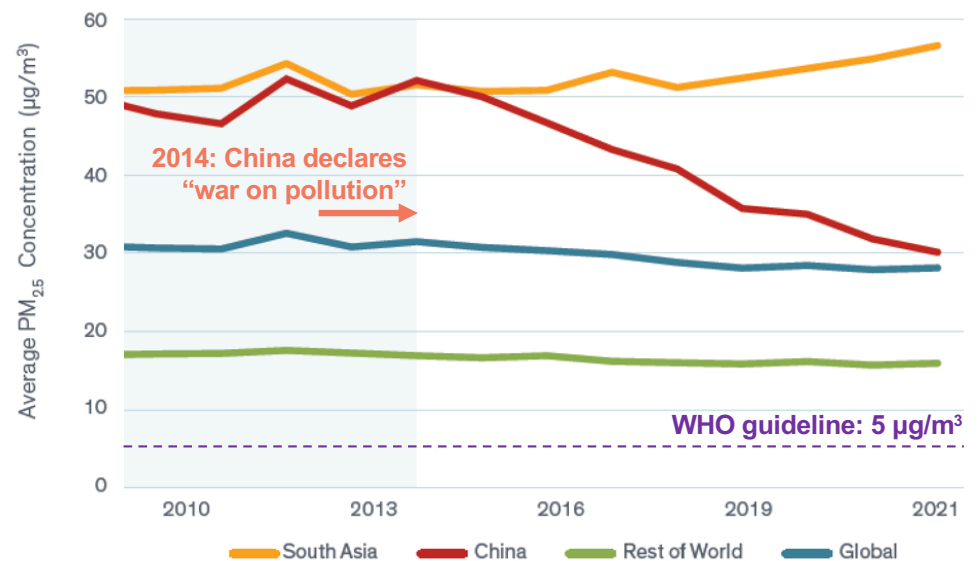
**Improvements in China's air quality have increased life expectancy by 2.2 years**

**But pollution levels are still 6x higher than WHO guidelines, reducing average life expectancy by 2.5 years**

**99.9% of China's people still live in areas where pollution levels exceed the WHO guideline**

*University of Chicago, Air Quality Life Index, 2023.*

**China's PM<sub>2.5</sub> air pollution has decreased 42% since 2014**



*Note: South Asia is defined as the following countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka. Rest of the World refers to all regions across the globe except South Asia and China.*



# HOW CHINA CAN REDUCE POLLUTION AND IMPROVE AIR QUALITY

- Continue transitioning away from coal and oil for energy generation to natural gas and especially renewable energy sources
- Ensure heavy industry (especially steel) reduces emissions
- Limit private vehicle use and increase use of electric vehicles, including trucks
- Expand public transit using electric vehicles, buses, and trains
- Replace coal-burning cookstoves and heaters in households with propane-fueled appliances

## 6. RENAISSANCE IN PUBLIC HEALTH

### • — *Public health should*

- Align across local, city, state, national, and global levels
- Align with political leaders to prioritize evidence-based action and enable multisectoral coordination (economic, educational, social, etc.)
- Regain/strengthen public trust
- Get real-time data to enable the best decisions
- Be staffed by experienced, practical experts to ensure financial resources result in improved functional capacities

# STOPPING THE NEXT PANDEMIC

*Target for early detection and response*



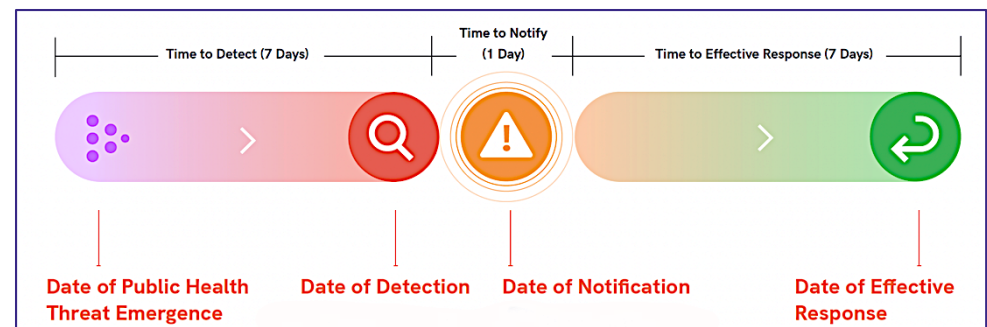
- Identify every suspected outbreak within 7 days
- Report within 1 day
- Mount effective response within 7 days

**To succeed, the world will need**

- Funds for improved detection and response (US\$5-10 billion/year for low- and middle-income countries)
- Technical expertise to transform financial resources into functional capacities
- Stronger organizations with improved managerial capacity

*Frieden TR et al. Lancet. 2021 Aug 14;398(10300):638-640.*

*Frieden TR et al. BMJ Glob Health. 2021 Mar;6(3):e005184.*



# 7-1-7 REQUIRED CAPACITIES AND RESPONSE COMPONENTS

## **Suspected outbreak detection (time to target: 7 days)**

Required capacities and response components:

- Access to medical care and treatment
- Health workers trained on case definitions with the ability to detect suspected outbreaks
- Laboratory diagnostic capacity for differential diagnosis

## **Public health authorities are notified and the investigation is initiated (time to target: 1 day)**

Required capacities and response components:

- Clear reporting structures
- Data systems and training for reporting from clinical and laboratory facilities to public health
- Public health workforce receives alerts and initiates investigation and response

## **Effective response measures are put in place (time to target: 7 days)**

Required capacities and response components:

- Component 1: response initiation
- Component 2: epidemiological investigation
- Component 3: laboratory confirmation
- Component 4: medical treatment
- Component 5\*: countermeasures
- Component 6\*: communications and community engagement
- Component 7\*: response coordination

\*Components 5, 6, and 7 might not be required for all responses

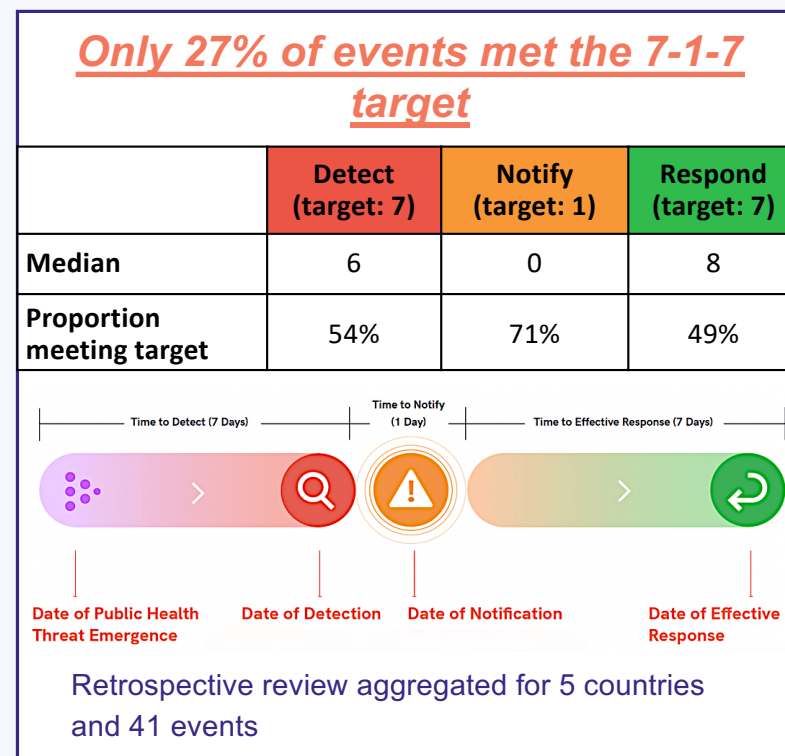
# 7-1-7 TARGET CAN IMPROVE EARLY DETECTION AND RESPONSE

... And is recommended by WHO and used by World Bank, Global Fund, and others

## 7-1-7 pilots demonstrate that

- 7-1-7 target is feasible for public health threats
- 7-1-7 is a useful to identify bottlenecks and enablers
- 7-1-7 identifies bottlenecks/enablers missed or not prioritized by other means
- Many initial bottlenecks are low- or no-cost and can be improved quickly

Bochner AF et al. Lancet Glob Health. 2023 Jun;11(6):e871-e879.



# ONE HEALTH

*A collaborative, multisectoral & transdisciplinary approach – working at local, regional, national & global levels – with the goal of achieving optimal health outcomes recognizing the interconnections among people, animals and their shared environment*



- Preserve natural habitats and wild animals
- Eliminate consumption of bush meat and wild animals in wet markets globally
- Support communities to replace the economic, social & nutritional aspects of this consumption with alternatives that are healthy for people and the environment

# GLOBAL PARTNERSHIPS AND COLLABORATION

*Essential for progress  
achieving a healthy world*

Increased international collaboration is necessary to find and spread solutions for common problems

Together, we can build a global community drawing on the lessons and strengths of each country to make a strong, safer, healthier world

This will preserve and improve our health, the well-being of animals, and the resilience of our environment



[resolvevetosavelives.org](https://resolvevetosavelives.org)