香港中文大學
The Chinese University of Hong Kong

香港中文大學醫學院
Faculty of Medicine
The Chinese University of Hong Kong

An Integrated Health System – The Transformation to be Fit-For-Purpose

Professor YEOH Eng Kiong
Director, Centre for Health Systems and Policy Research
JC School of Public Health and Primary Care
Faculty of Medicine, The Chinese University of Hong Kong

International Forum on Quality & Safety in Healthcare

27 August 2024

Centre for Health Systems & Policy Research
醫療體系及政策研究所

Ageing and Non-communicable Diseases

- Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%.

- Non-communicable diseases (NCDs) kill 41 million people, equivalent to 74% of all deaths each year; and accounting for more than three out of four years lived with a disability.

- Each year, 17 million people die from a NCD before age 70.

- An estimated 80% of NCDs death are preventable.
  - Driven by modifiable risk factors including tobacco use, unhealthy diet, physical inactivity, harmful use of alcohol, and air pollution.

https://www.who.int/news-room/fact-sheets/detail/ageing-and-health
https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases
https://ncdalliance.org/why-ncds/NCDs

Challenges for Health System

Needs - Demand

- Demographic changes – life expectancy, lower fertility
- Epidemiological transition – chronic non-communicable diseases requiring life long care
- Preventable diseases that require lifestyle changes and life course approach
- Interventions for social determinants of health
- Health inequalities
- Unmet changing needs
- Managing demand

Chronic Disease Characteristics

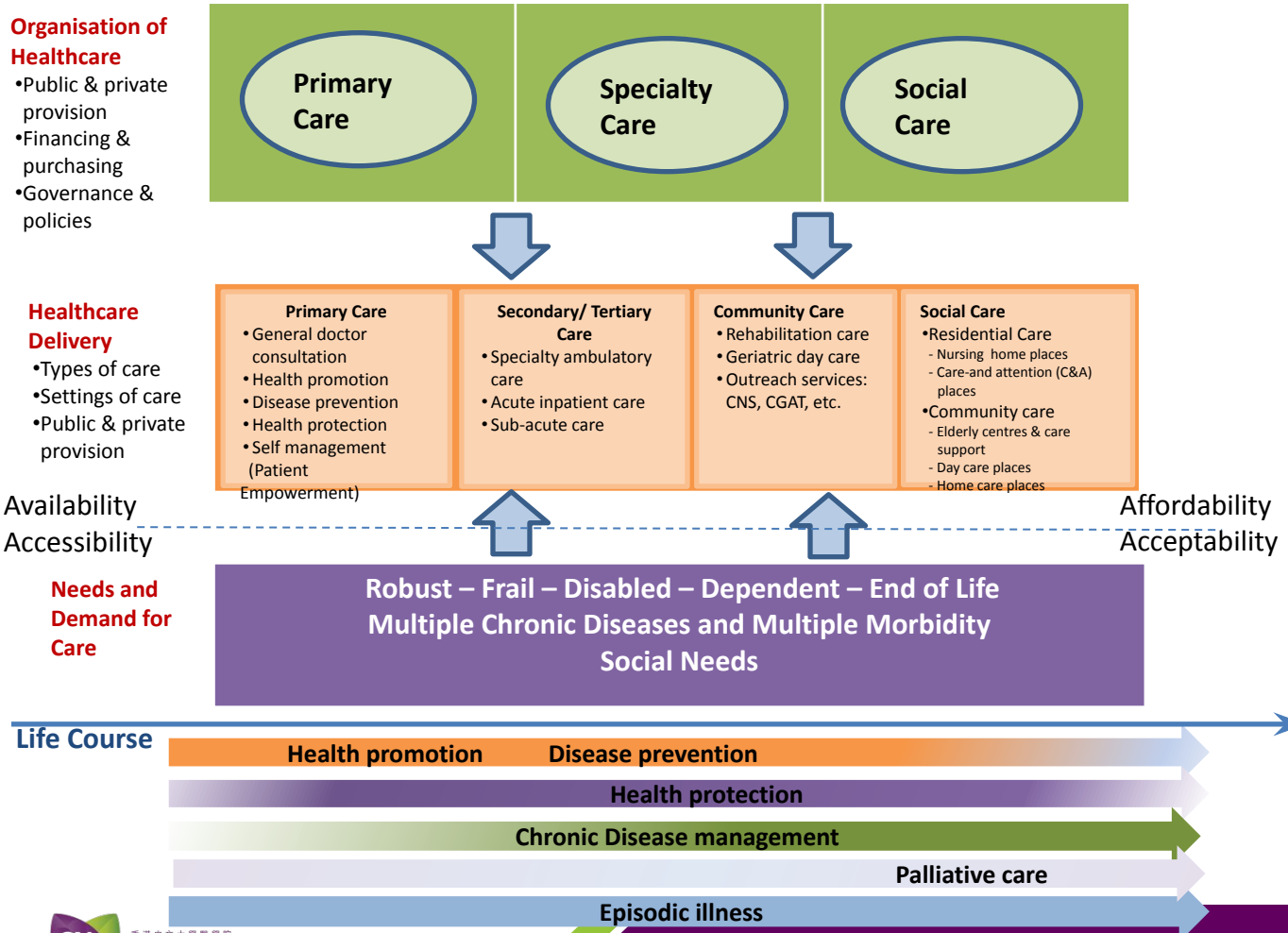
- Emerges throughout the life cycle, more prevalent in later life and associated with multimorbidity
- Multiple complex interacting social determinants and causes with 80% life style related
- Usually insidious in onset, may present acutely
- Life long and persistent, requiring long term medical care
- Progresses with complications emerging without treatment and deterioration of health
- Progression and complications compromise quality of life and functional limitations and disabilities
- Preventable with life-style changes, progression delayed and complications averted with treatments
- Disabilities and functional limitations improve with rehabilitation

Challenges for Health System

Provision - Supply

- Advances in medical knowledge
- Specialisation
- Process complexity
- Organisational complexity
- Continuity and coordination of health services
- Collaboration and coordination in transition between health and social care
- Disruptive technology transformations

Healthcare Delivery System



Fragmented Health Services

“Fissure Lines” contribute to healthcare fragmentation

A)Types of care organised by

1. Levels – primary, secondary, tertiary
2. Functional status – acute, subacute, rehabilitative, palliative, mental health
3. Specialties & subspecialties – medicine, surgery, orthopaedics, cardiovascular, cardiothoracic, trauma
4. Population groups – geriatric, women’s health

B)Healthcare settings:

1. Inpatients & day patients
2. Ambulatory – day care & outpatient service, community, outreach & homecare
3. Specialist facilities – day surgery centres, hospice

Fragmented Health Services (cont'd)

C) Multicombination & differential sequencing of procedures and process

- Diagnostic, therapeutic, supportive, rehabilitative, administrative

D) Provider organisation segmentation:

1. Public & public healthcare
2. Public health & public healthcare
3. Public and private healthcare delivery and financing

Challenge: Fragmentation and Segmentation

Delivery system fragmentation

- Different **types of care**
- Different **settings**
- Different service **providers**
- Multicombination of **procedures** and **processes**
  - "Natural fissure lines" contributing to healthcare fragmentation

Provider organisation segmentation

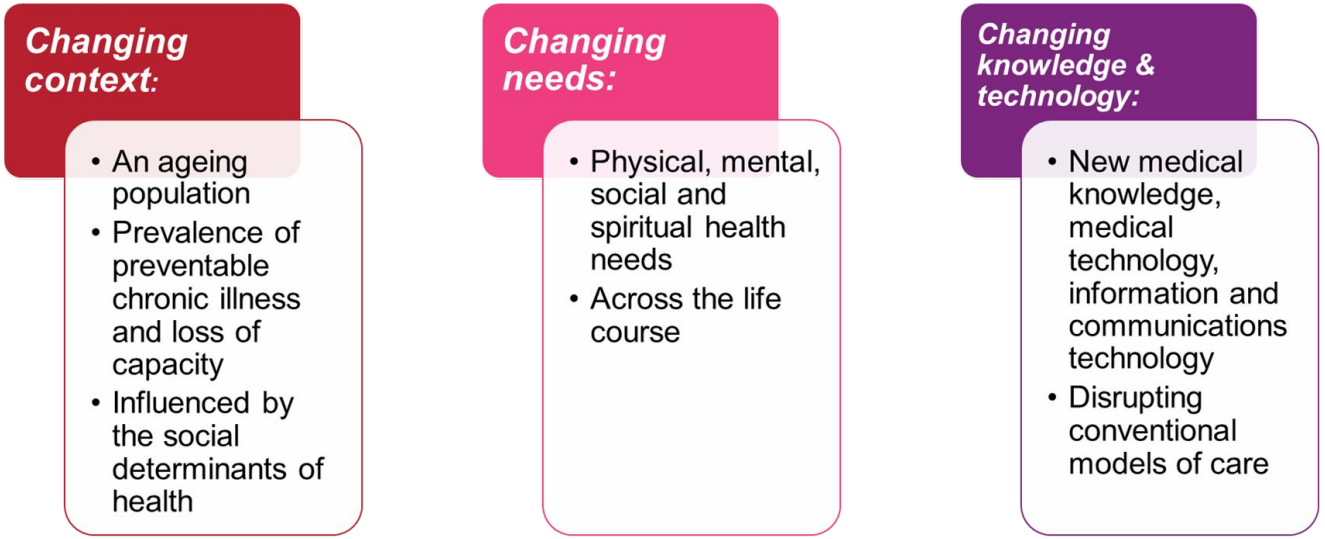
- Divides between **public health organisations** & **healthcare service delivery**
- Segmentation of **service delivery and financing** between public and private sectors.
- **Public-private** divide

Health and social sector segmentation

- Segmentation of **service and finance of health social sector**
- Hinder **transition** along patient care pathways & **inadequate medical and social support**

A Fit for Purpose Health System

- **A system suited to accomplish its intended purpose**
- **Changing in a changing world:**



Source: Our Hong Kong Foundation, 2018

Needs of Patients with Chronic Disease

1. Complete medical & illness diagnosis including physical and social functioning situation and role
2. Proactive, preventive (primary and secondary) and rehabilitation interventions are important
3. Patient self-management and the carer play important role in successful outcome of the intervention
4. Require a coordinated approach to person centred (individualized) continuity of multidisciplinary care integrated at all levels and types of care throughout the life course
5. Biophysical emotional, social, material, and spiritual needs and priorities of each individual over the lifetime

Chronic Disease Management

- Effective chronic care management requires continuity of multidisciplinary person-centered care integrated at all levels and types of care over the life-course to prevent deterioration, complications and disability

- 3 primary sites of fragmentation:
  - between and within hospital, specialized, secondary and tertiary care and ambulatory, primary and preventive care
  - between and within the public and private health sector
  - between and within health and social care

- Co-production of health
  - partnership with patients and carers
  - community resources and capacities to enable and reinforcing health enhancing environment

Chronic Disease Management in Primary Care

Element of chronic care model	Effective interventions
Self-management support	• Patient educational sessions • Patient motivational counselling • Distribution of educational materials • Most evidence for effectiveness of self-management support for diabetes and hypertension • Some evidence for effectiveness of self-management support for arthritis and asthma
Delivery system design	• Multidisciplinary teams • Most evidence for effectiveness of delivery system design for diabetes, hypertension, lipid disorders and heart disease
Self-management support and delivery system design	• Multidisciplinary teams plus patient educational sessions • Multidisciplinary teams plus patient motivational counselling
Decision support	• Implementation of evidence-based guidelines • Educational meetings with professionals • Distribution of educational materials among professionals
Clinical information system	• Audit and feedback
Healthcare organization	• Little published experimental evidence
Community resources	• Little published experimental evidence

Dennis SM et al. (2008)

Becoming Fit for Purpose: Changing to Meet a Changing World

Changing Health System

Person-centred	Primary care-led	Integrated

• Initiatives to enable self-care and empowerment including families and communities
• Promoting coproduction in health
	• Accessible, comprehensive, coordinated, and continuous	• System-wide integration:
		  • Hospital & primary and community
		  • Public-private
		  • Personal-public
		  • Health-social

Source: Our Hong Kong Foundation, 2018

Integrated Health Services

- Health services that are managed and delivered in a way that ensures people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, at the different levels and sites of care within the health system, and according to their needs throughout their life course

WHO global strategy on people-centred and integrated health services (2015)

Integrated Care

- No single approach or model for integrating care exists: Highly context-specific
- Models in specific-care:
  - Acute care
  - Sub-acute and intermediate care
  - Hospital-like services at home
  - Post-acute care to support early discharge
  - Residential rehabilitation units
  - Primary care settings
  - Community-based care

Preliminary findings from FHB project (2015)

Many Approaches to Integration

- Integration can be undertaken between organisations, or between different clinical or service departments within and between organisations
- Integration may focus on joining up primary, community and hospital services (‘vertical’ integration) or involve multi-disciplinary teamwork between health and social care professionals (‘horizontal’ integration)
- Integration may be ‘real’ (ie, into a single new organisation) or ‘virtual’ (ie, a network of separate providers, often linked contractually).
- Integration may involve providers collaborating, but it may also entail integration between commissioners, as when budgets are pooled.
- Integration can also bring together responsibility for commissioning and provision. When this happens, clinicians and managers are able to use budgets either to provide more services directly or to commission these services from others: so-called ‘make or buy’ decisions.

Curry and Ham (2010)

Conceptualisation of Integrated Care

a) Types of integration

b) Breadth of integration

c) Degree of integration

d) Process of integration

RAND Europe (2012)

(a) Type of Integration

Type	
Functional integration *(Marco level)*	The extent to which key support functions and activities such as financial management, human resources, strategic planning, information management and quality improvement are coordinated across operating units
Organisation integration *(Meso level)*	The creation of networks, mergers, contracting or strategic alliances between healthcare institutions
Professional integration *(Meso level)*	Joint working, group practices, contracting or strategic alliances of healthcare professionals within and between institutions and organisations
Clinical integration *(Micro level)*	Extent to which patient care services are coordinated across the various personnel, functions, activities and operating units of a system

RAND Europe (2012)

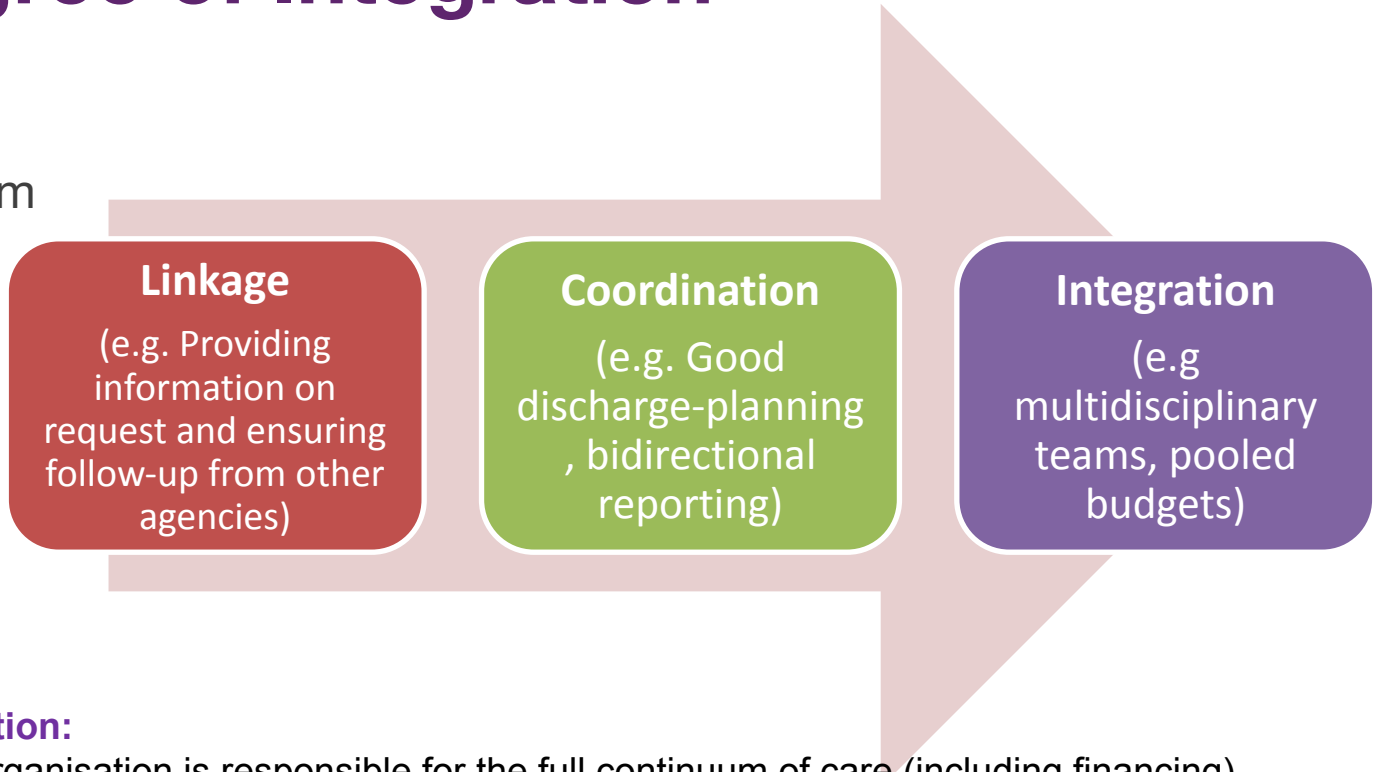
(b) Breadth of Integration

Breadth	
Horizontal integration	Link services on the same level in the process of healthcare e.g. general practice and community care that facilitate collaboration and communication
Vertical integration	Different levels of care e.g. primary, secondary and tertiary under one management umbrella

RAND Europe (2012)

(c) Degree of Integration

- Continuum



Full integration:
Integrated organisation is responsible for the full continuum of care (including financing).

RAND Europe (2012)

(d) Process of Integration

Process	
Structural integration	Alignment of tasks, functions and activities
Cultural integration	Convergence of values, norms, working methods, approaches and symbols
Social integration	Intensification of social relationships and integration of objectives, interests, power and resources

RAND Europe (2012)

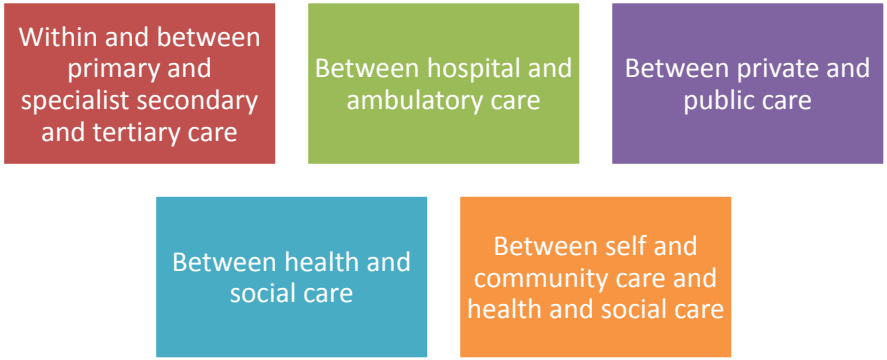
Health System Transformation To be Fit-For-Purpose

WHAT?

Health System Transformation

- World Health Organisation (WHO) advocates a **Person-Centred Primary Care-Led Community-Based Integrated Health Care Delivery System**
  - To provide continuum in comprehensive preventive, curative, palliative and rehabilitative services at different levels and sites of care according to a person's need over the life course
  - To improve responsiveness, quality, effectiveness, efficiency, patient satisfaction and health outcomes

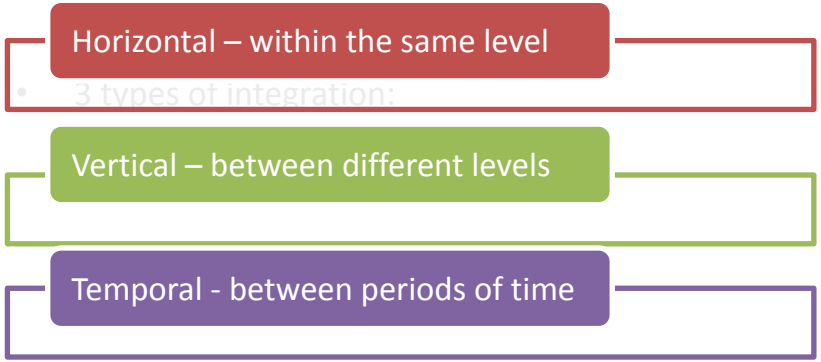
❖ Integration of services are needed in



❖ The integration of care will

- Minimise healthcare gaps
- Improve access and coordination and continuity of the range of needed care in partnership with patients and their carers.
- Minimise service duplications

HOW?



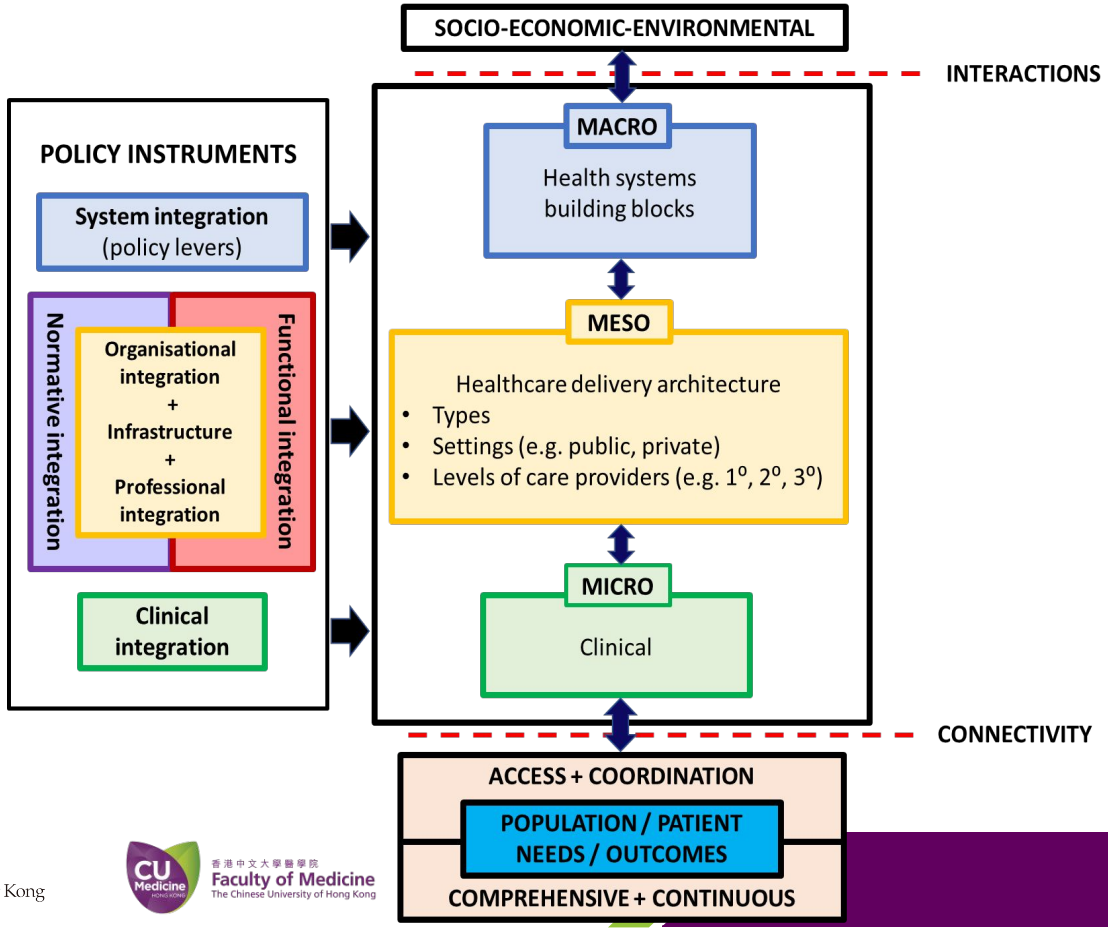
to be addressed at **Macro - System**, **Meso - Provider Organisational**, and **Micro – Clinical-Patient levels**

Integrated Care Systems Framework

- At the **macro-systems level**, the Governance Policy Instruments of ***Financing, Strategic Purchasing, Contracting, Provision, Regulation and Information*** can be the enablers of integration at the meso and micro levels and when so designed for engagement of the private sector.

- At the **meso-provider organisational** and **micro-clinical patient levels**, integration is enabled by system policies in mechanisms for the modalities of ***Organisation, Function, Professional, Normative, Clinical and Person-centered coordination*** which link care and services from different providers, organisations, settings and types. The goal is to provide continuity of care needed.

Integrating Care Systems Framework



Integrating Care Systems Framework

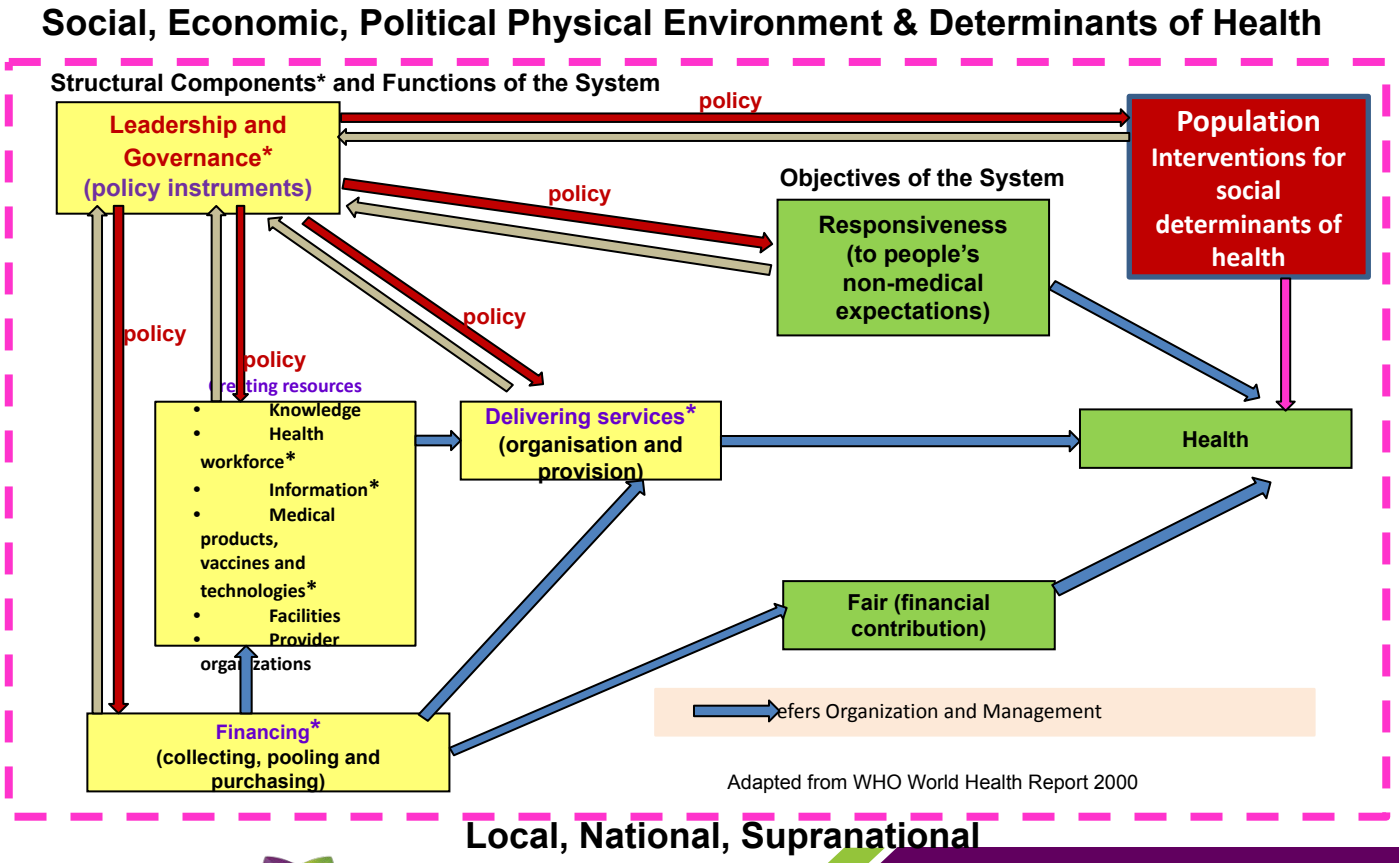
- An **Integrating Care Systems Framework** is proposed in understanding the policies, modalities and mechanisms for integrating health care provision

- The policies, modalities and mechanisms for integrating health care provision may be initiated and implemented at the **3 levels of health systems**
  - Macro - systems
  - Meso - provider organisations
  - Micro - clinical

Macro Systems Level

- Enablers of integration at the meso and micro levels and when so designed for engagement of the private sector
  - The Governance **Policy Instruments** of Financing, Strategic Purchasing, Contracting, Provision, Regulation and Information

Health System: A Complex Adaptive System



Governance of Health(care) Systems

System of decisions (and non decisions) and actions (and in actions) that affect how the institutions, organisations, health service delivery, resources and financing of health systems are organised, provided, function and managed for health

Marco Level

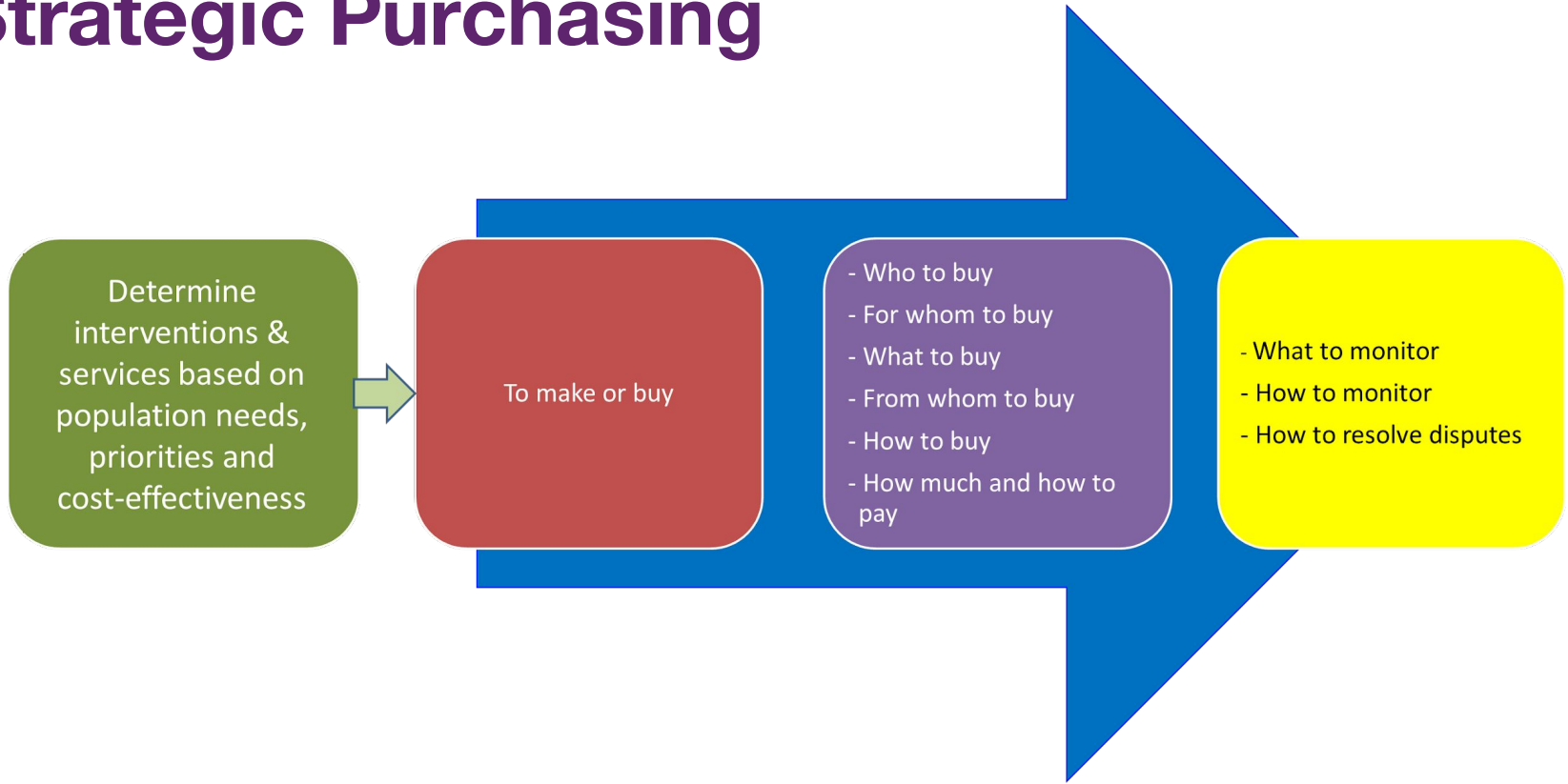
- **Governance & Leadership**
  - Key governance function is formulation of strategic goals
  - Generated by strategic planning
    - Population health needs assessments
    - Evaluation of healthcare delivery system
    - Access, equity and affordability of healthcare
    - Identify gaps in healthcare service types and mix in public and private provider systems
    - Assessment of capacity and capabilities of public & private sectors
  - Strategic purchasing healthcare which enables organisation & clinic integration to provide accessible, comprehensive and continuity in care

Strategic Purchasing

- *Strategic purchasing is a "**systemic approach. . .[that] aims to increase health systems' performance by effectively allocating financial resources to providers, by deciding the following**: **which interventions to purchase in response to population needs, national health priorities, and evidence-based cost-effectiveness**; **how to purchase these interventions, including contractual mechanisms and payment systems**; **and from whom to purchase, taking into account quality and efficiency of providers.**"*

(European Observatory, 2007)

Strategic Purchasing



Modalities and Mechanisms for Integration at the Meso – Provider Level

- Policies and strategies for integrated care are executed at the meso – provider organisations and micro – clinical levels
- Integration is enabled by system policies in mechanisms for the modalities of
  - Organisation
  - Function
  - Professional
  - Normative
  - Clinical
  - Person-centered coordination
- Link care and services from different providers, organisations, settings and types to the person in the community
- Goal: To provide continuity of care needed

Organisational Form of Integration

- Organisational form of integration could be: mergers, corporatisation, creation of networks, strategic alliances and selective contracting, with the goal of horizontal and vertical integration of health care.

Organisational Form of Integration

- **Typology of organisation forms** is based on three variables: ownership, organisational independent status (boundary integrity) and inter-organisation agreements
- **Ownership** will dictate the governance, decision and residual rights and social purpose of the organisation
- **Organisations** may merge or form joint ventures for the goal of integration
- **Strategic alliance** is an organisation form where organisations maintain independent status but enter into formal agreements
- **Networks of organisations** are organic structures which are variable in their engagement and commitment

Infrastructural Mechanisms

- Infrastructural mechanisms can facilitate integration by collocating multidisciplinary teams, joint working professionals from different types of health care professions.

Functional Mechanisms

- Functional mechanisms enhance coordination unifying administrative and payment systems, common information technology and shared electronic health records.

Professional Integrative Mechanisms

- Professional integrative mechanisms include group practices, professional communities of practices and strategic alliances of health professionals.

Normative Integration

- Normative integration involves mechanism for convergence of values, norms and shared work practices.

Clinical Integration

- Mechanisms of integration at the clinical patient contact point enables population access to continuity of comprehensive healthcare needed over the life course.

Mechanisms for Clinical Integration

- Mechanisms for clinical integration include development of clinical guidelines for patient care, multidisciplinary clinical teams with roles and responsibilities defined and integrated patients' health records shared by different disciplines and providers. A critical consideration at the clinical level are mechanisms for “connectivity” with the patient and the community.
- Self-management support, electronic and physical channels for on-going contact with patients and carers, care navigators and case manager for continuity of care and discharge planning to coordinate the biophysical and socio-environmental needs of patients on separation for hospital. In primary care sectors, patient assessments inform the design of comprehensive care needed which is constructed with patients' preference and expectations. Relational continuity with healthcare professionals facilitates the connectivity.

Integrating Care Systems Framework

- It is critical to recognize that the policies, modalities and mechanisms for integration at the 3 levels are **interdependent** and needs to be considered in concert for integrated care with the goal of providing **coordinated and comprehensive care** for the population which is efficient and sustainable.

THANK YOU!