# The Needs-Based Analytical Framework

- **HHRP Conceptual Model** (O'Brien-Pallas, Tomblin Murphy, Birch, 2005)
  - HHRP occurs within, as opposed to independent of, health care planning, and
  - Health care planning occurs within, as opposed to independent of, other public policy planning.

- **Analytical Framework** (Birch, Tomblin Murphy, O'Brien-Pallas, Kephart, Alder, MacKenzie, 2005)
  - consists of two independent components: provider supply and provider requirements.

**Health System and Health Human Resources
Planning Conceptual Framework** [1]
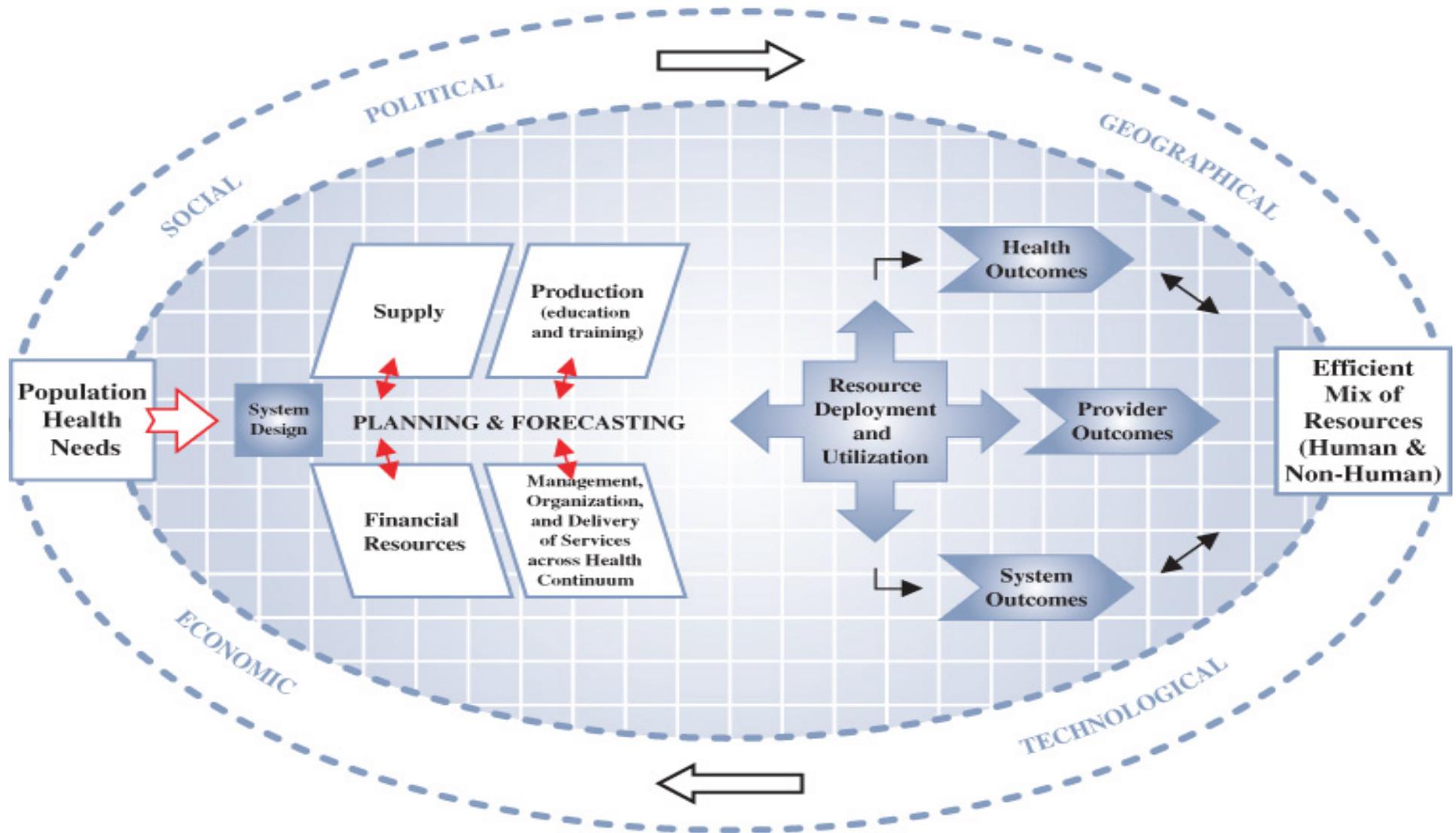
[1] O'Brien-Pallas, Tomblin Murphy, Birch, 2005 (adapted from [1] O'Brien-Pallas, Tomblin Murphy, Birch & Baumann, 2001, and O'Brien-Pallas & Baumann. 1997)

Analytical Framework (Birch, Tomblin Murphy, Kephart O'Brien-Pallas, Alder, MacKenzie, 2005)

- ***Estimates the health services required to meet the needs of the population that is then translated into the required health providers to deliver this service.***

- **Provider Supply**
  - 'How many providers are (or will be) available to deliver health care services to the population?'

- **Provider Requirements**
  - 'How many providers are required to ensure sufficient 'flow' of health care services to meet the needs of the population?'

The Analytical Framework: Provider Supply

- The *supply* of eligible providers:
  - Age distribution
  - Entry rates
  - Exit rates
- The *flow of services* from eligible providers:
  - Participation rate (% working)
  - Activity rate (worked hours per provider)
  - Productivity (services per worker hour)

Requirement for Providers

Is a function of the following:

1. Population size and age/sex distribution (demography)
2. Health status of that population (epidemiology)
3. Level of service (e.g., # of visits to NP per year per level of health status)
4. Productivity of the providers (e.g., # of visits per year an NP can accommodate)

The Analytical Framework: Provider Requirements

Provider Requirements:

$$= \sum_{age,sex} \left(\frac{\Pr oviders}{Service} \right) x \left(\frac{Services}{Need} \right) x \left(\frac{Needs}{Population} \right) x \left(Population \right)$$

Components

- **Population**: size and distribution
- **Epidemiological change** (needs/population)
- **Level of service** (services/need)
- **Productivity** (services/provider)

Implications of this HHRP Approach

- Points out the central role played by the needs of the population in 'driving' provider requirements

- Enables policy makers to evaluate the basis of, and justification for increases in the sizes of provider stocks and increases in education and training programmes as a method of increasing stocks.

- Broadens the traditional focus on training seats to encompass a wide range of policy influences.

- Avoids perpetuating the notion that current provider availability reflects future provider requirement

Pan-Canadian Framework for HHR planning: Vision

- Improved access to appropriate, effective, efficient, sustainable, responsive, needs-based health care services for Canadians, and a more supportive satisfying work environment for health care providers through collaborative strategic provincial/ territorial/ federal health human resources planning.

Principles of the HHR Plan

- enable each jurisdiction to design its health care system based on population health needs and
  - identify the human resources required through a process that is patient-centred, culturally sensitive, evidence-based, and outcomes directed
- be responsive to health care renewal and changes in system design
- foster patient safety
- be culturally sensitive and responsive to health needs of Aboriginal people

Principles of the HHR Plan

- provide a flexible health workforce
  - that has the competencies to work in quality driven, innovative, cost-effective, interdisciplinary service delivery models
- support the provision of safe and healthy workplaces
- actively engage educators, employers, funders, researchers and providers in the planning process
- respect jurisdictional differences and jurisdictional responsibility for service delivery, and reflect the shared responsibility to provide leadership within the health care system
- strive towards greater self-sufficiency in HHR.

Goals of the HHR Plan

- To improve all jurisdictions' capacity to plan for the optimal number, mix, and distribution of health care providers based on
  - system design, service delivery models and population health needs.
- To enhance all jurisdictions' capacity to work closely with employers and the education system to develop a health workforce that has the competencies to
  - provide safe, high quality care, work in innovative environments, and respond to changing health care system and population health needs.

Goals of the HHR Plan

- To enhance all jurisdictions capacity to achieve the appropriate mix of health providers and deploy them in service delivery models that make full use of their skills.

- To enhance all jurisdictions' capacity to build and maintain a sustainable workforce in healthy safe work environments.

Critical Success Factors

- Appropriate stakeholder engagement
- Strong leadership and adequate resources
- Clear understanding of roles and responsibilities
- A focus on cross-jurisdictional issues
- A change in system or organizational culture
- Flexibility
- Accountability

Components of the HHR Plan

- Short, Medium, and Long term goals
- Objectives and Actions, the time-frame for initiating actions (i.e., within two years, within four years, after four years), and the potential outcomes.
- Investments from the provinces, territories and the federal government will be required to implement all the proposed actions and achieve the desired outcomes.

Challenge

- Aligning population health needs with required models of service delivery and health workforce is critical.

- This brings about changes in the required composition of teams and what they do
  - Innovation and flexibility
  - New and evolving roles
  - Changing scopes of practice