National health workforce for disease control

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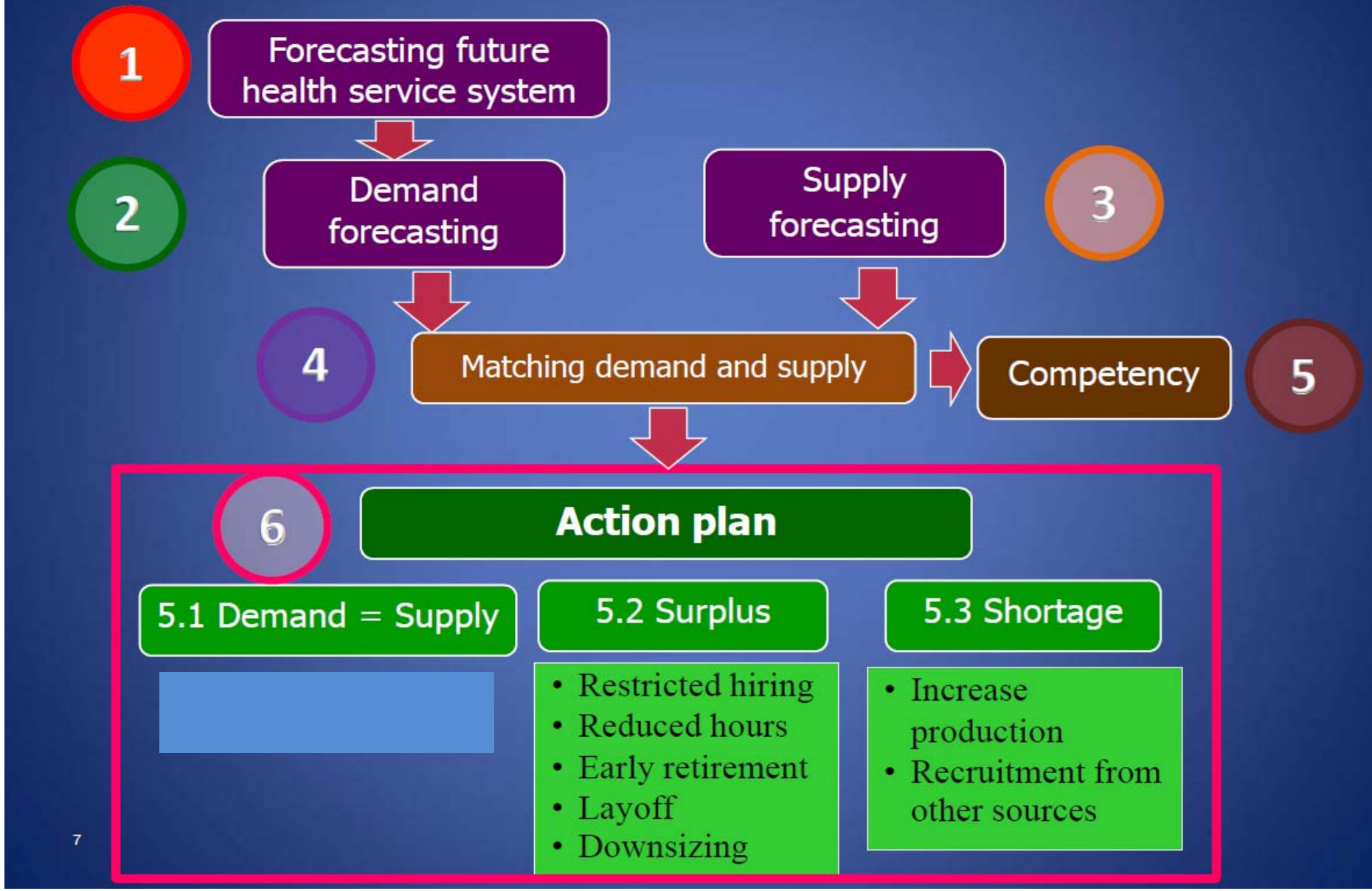
HRH planning process



Working groups (16 groups)

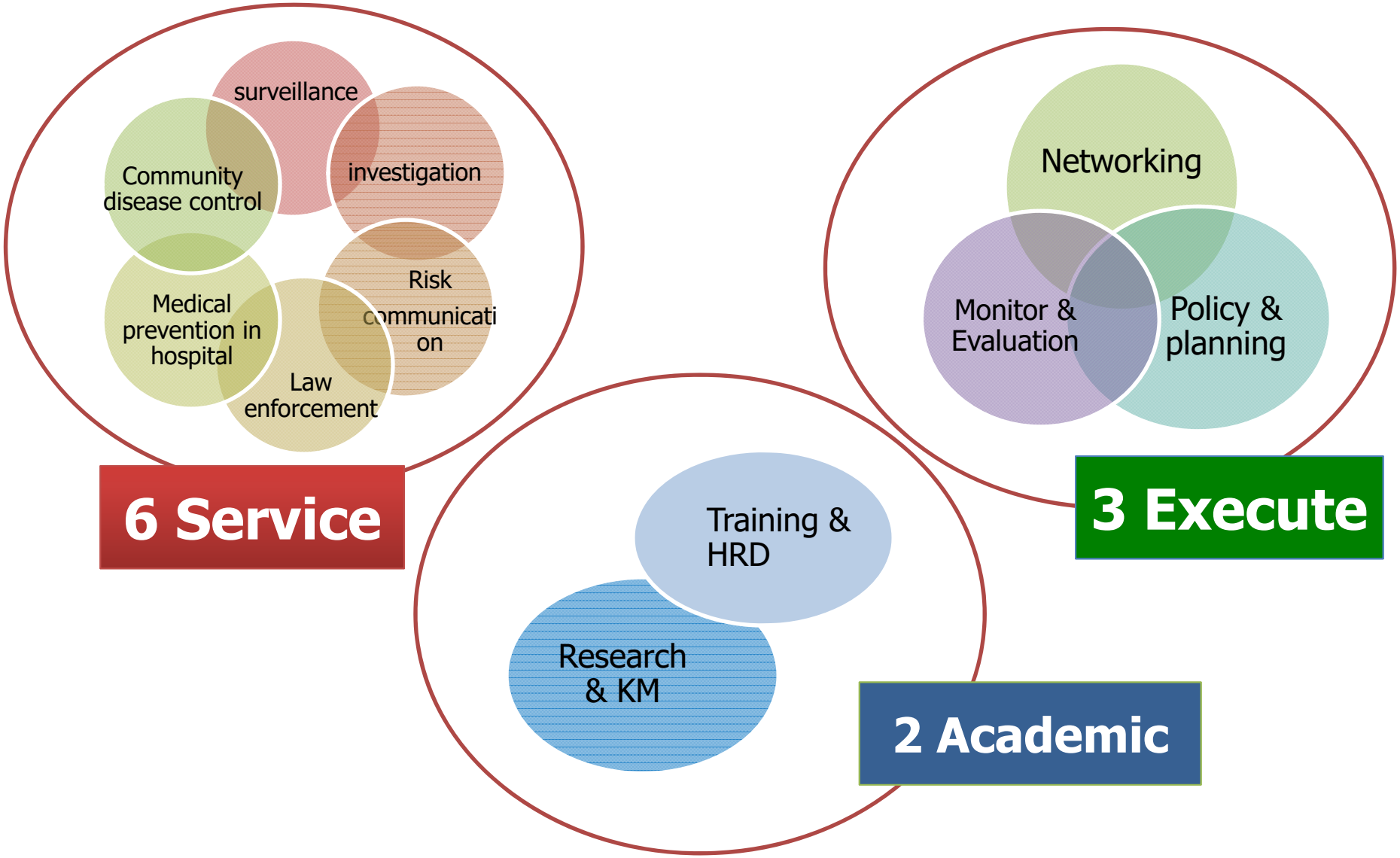
	Care service			Others			
	1. Primary care	2. Secondary	3. Tertiary	4. Drug industry	5. General industry	6. Disease control	7. Academia
1. Doctor							
2. Dentist							
3. Pharmacist							
4. Nurse							
5. Med. Tech							
6. Veterinarian							
7. Public health technician							
8. Traditional Med							
9. Special: care giver							

There is no epidemiologist in the human resource management system.
But
Veterinarian is existing.

Methodology

- Review literature and brainstorm to design the future system
- Retrieve the secondary data survey of human resources at provincial level
- Using “service target” to estimate demand
- Interview policy maker to identify need competency on disease control for each professional.
- Synthesize the system design, demand and gap

Group of functions in disease control



Future disease control system

Disease control system mean delivery of surveillance, prevention and control of disease and health threat including public health emergency response.

Structure

	Epidemiology	CD cluster	SALT cluster	NCD cluster	Injury cluster	En-Oc cluster
Department of disease control						
Provincial health office	4 people/cluster + (number of district x 0.5)					
District health office	1 person/service + (0.1*(No. of HPH)					
Local government	small 3, medium 4, large 5, municipality 6					
Hospital	1 Epidemiologist + 1 ICN + 1 for 200 beds					

Demand of staff at each setting

Setting	Current situation	Need	GAP
Provincial health office	1,130	2,263	1,408
District health office	2,192	2,883	877
Hospitals	1,285	2,943	1,658
Local government	2,683	28,662	~25,979
Department of disease control	6,707	7,081	374
Point of entry	135	265	130
Bangkok metropolitan	~683	683	NA

Population ratio =
1: 1647 (pop = 70,000,000)
1: 1468 (pop = 65,729,096)

Supply of public health technician per year

	MoPH	University	5 years Demand	Lost
Community health	400	26,000	53,672	800
Occupational health	1500		14,095	NA
Nutrition	-	8400	1,793	NA
Environment	13 institutes no detail		NA	NA
Health education and behavior science	7 institutes no detail		NA	NA
Epidemiology	1 Institute no detail		NA	NA

Sources: Working group of public health technician

Supply projection for Epidemiologist

Terminology

- Field epidemiologist
  - Head of investigation team for serious communicable disease
  - Head of investigation team for general communicable disease
  - Public health officer as a member of investigation teams
- Program manager
- Researcher

Training for field epidemiology

- 3 level of curriculum for field epidemiology
  - High: Field Epidemiology Training Program (FETP)
  - Middle:
    - Epidemiology training in 120 hours (FEMT)
    - Epidemiology for public health officer 1 year
  - Basic: Epidemiology for new enrollment (2-4 weeks)

National strategic plan: next step

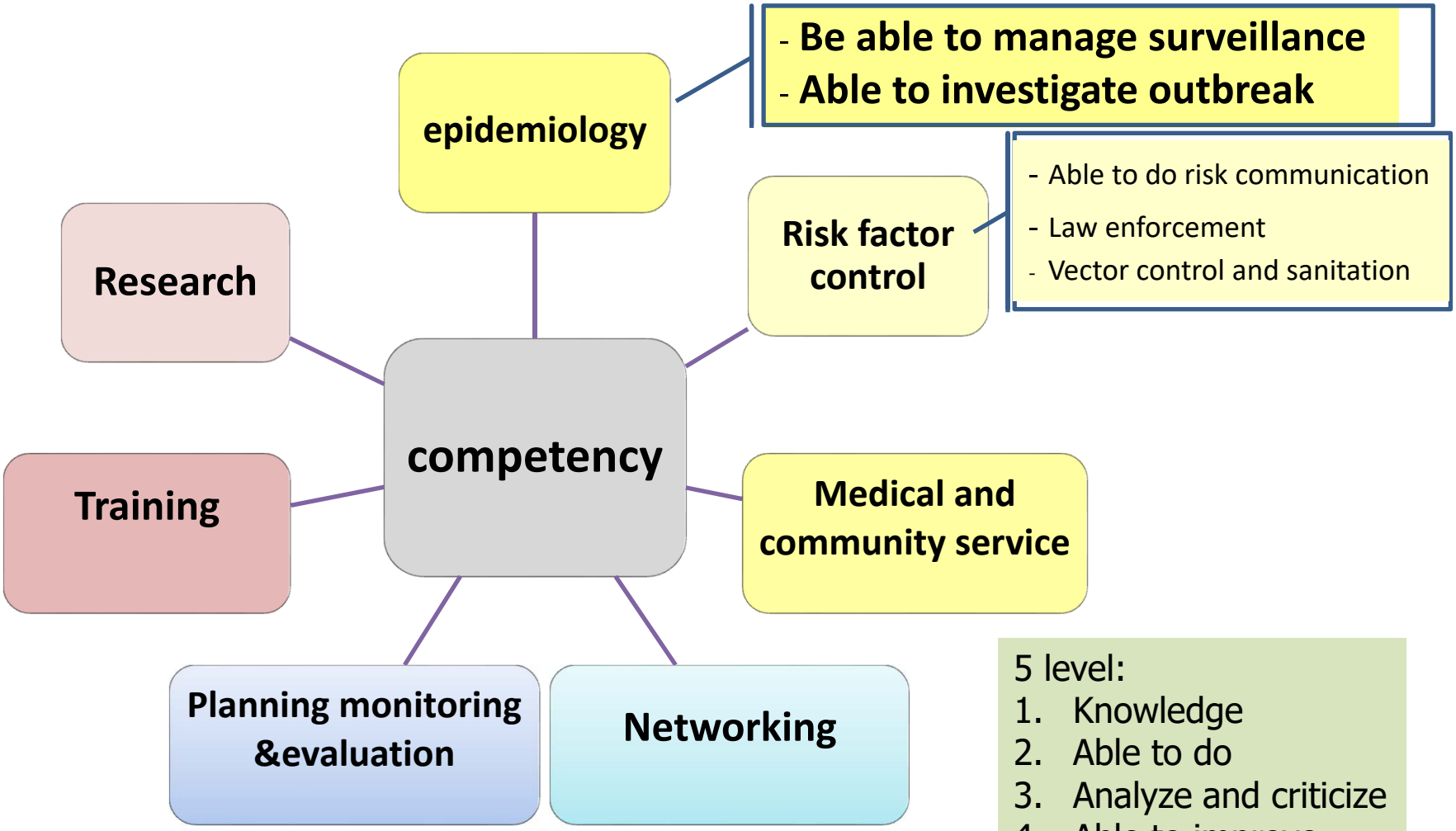
Main guiding questions

- Describe functions of field epidemiology
- Identify competency need for functions
- Determine the direction of workforce development
  - Improve competency of existing professional **or**
  - Promote epidemiologist to be another professional
- Identify suppliers and training capacity
- Identify maintenance strategy

Summary

- Limited data to generate a good plan for workforce development
- Variation of understanding in terminology need more clarification
- Supply of Epidemiology need to be supported.

Demand competency



5 level:

1. Knowledge
2. Able to do
3. Analyze and criticize
4. Able to improve
5. Able to recommend

Supply projection

1. Public health technician (Bachelor degree)

- Community health
- Occupational health
- Nutrition
- Environmental health
- Health education and behavior science
- Epidemiology

2. Epidemiologist