Innovations in Public Health Teaching of undergraduate Medical Education

The case of
Universitas Gadjah Mada
Medical School:
2003 - 2013

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History of Innovations

1. **Problem Based Learning in 2003**
2. **Introducing the Health System Approach in PBL Medical Education, 2006**

Author involvement in the innovation:

2003: As the chairman for transforming partial into full PBL curriculum

2006: As the Chief of Education, Department of Public Health UGM Medical School who involved in 2007 Curriculum Development

2006 - 2013: As the Coordinator for Health System and Disaster Block (4.2).

Innovation 1: 2003
Problem Based Learning

- Since 2003: UGM Medical School introduced Full PBL in the curriculum
- All traditional teaching material was distributed to Blocks
- No more teaching under the subject of Public Health

The Blocks

	Subjects	Block 1	Block 2	…..	Blok 22
	Anatomy	+	-		+
	Histology		+		+
	Pediatrics	+	+++		
	Surgery	-	+		
	Public Health	_	_		++
	etc				

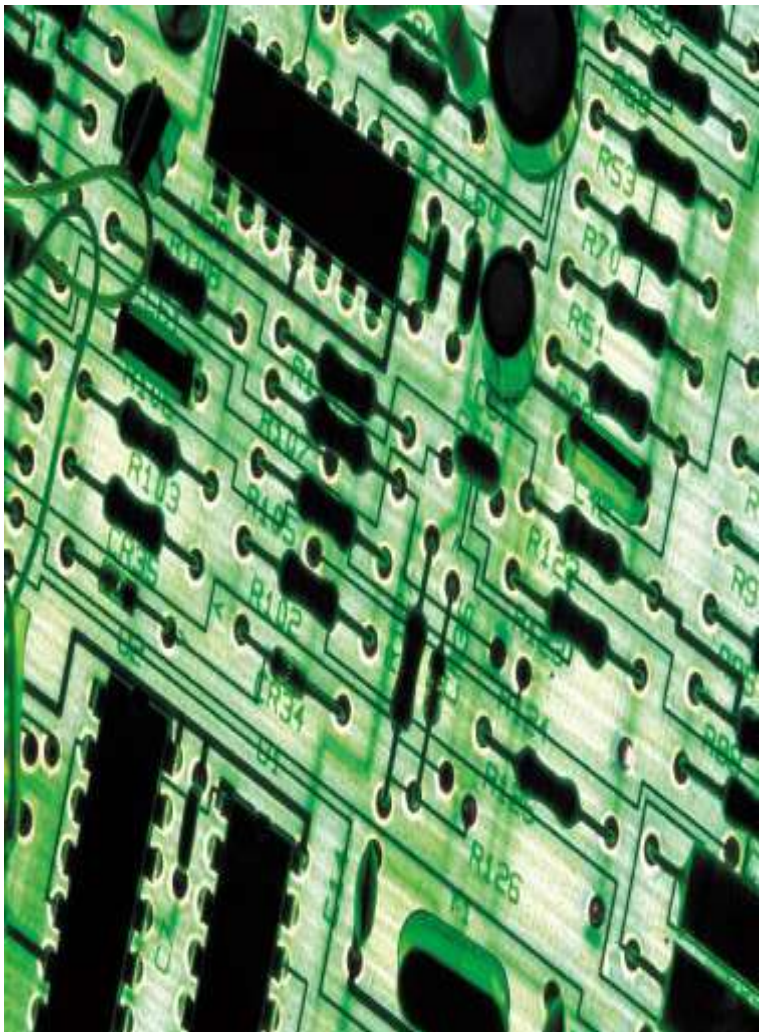
Public Health teaching material was distributed across Block

	Discipline of Public Health	Block 1	Block 2	…..	Blok 22
	Biostatistics	+	-		+
	Epidemiology		+		+++
	Social Behavior Sciences	+	++		
	Community Medicine	-	+++		
	Occupation Health	_	_		++
	etc				

The experience was a bad one for PH teaching:

- Public Health content was distributed across the Block;
- There was no Block which focused in Public Health disciplines and the interdisciplinary content;
- Public Health teaching in medical student was weakening in the PBL period of 2003 – 2006.
- PH in undergraduate medical education was observed as disappearing.

Innovation 2:

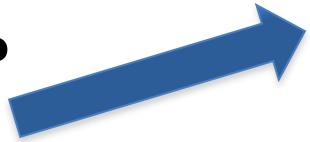


Health System Approach in Medical Education since 2007

In 2006

- Indonesian Medical Council released new regulation for using Competency Based Curriculum based on National Standard of MD Competency.
- This standard was used for improving the teaching of public health in UGM Medical School

Why?



- The National Standard of MD Competency demand the teaching of Public Health **discipline-based** and **the interdisciplinary** content such as: Leadership and Teamwork, Patient`s right and safety, Professional and Personal Development;

In the 2007 curriculum

- 2006: The Department of Public Health, UGM Medical School proposed to have some Blocks which have strong content of public health **discipline-based** and **the interdisciplinary** material in the new curriculum.
- The UGM Medical School Curriculum Committee accepted the proposal and provided some Blocks for more PH contents.

– Competency-Based Curriculum -
Faculty of Medicine Universitas Gadjah Mada 2007

Phase 1: Foundation of Medicine

Year 1: The Human Body System and Basic Medical Practice

Phase 2: Transition from Theory to Practice

Year 2: Life Cycle and Acute Disorder

Year 3: Multisystem and Chronic Disorders

Year 4: Emergency, Health System & Disaster

Phase 3: Clinical Rotation –
Becoming a Competent Doctor

THE CURRICULUM MAP

Phase 3: Clinical Rotation - Becoming a Competent Doctor
Year 5

Clinical Rotation

Compre Exams 2

Phase 2: Transition from Theory to Practice
Year 4: Emergency & Disaster

Block 4.1 Emergency (7 weeks)	Block 4.2 Health System & Disaster (7 weeks)	Block 4.3 Elective (7 weeks)

Compre Exams

Phase 3: Clinical Rotation - Becoming a Competent Doctor
Year 4

Clinical Rotation

Phase 2: Transition from Theory to Practice
Year 3: Multisystem and Chronic Disorders

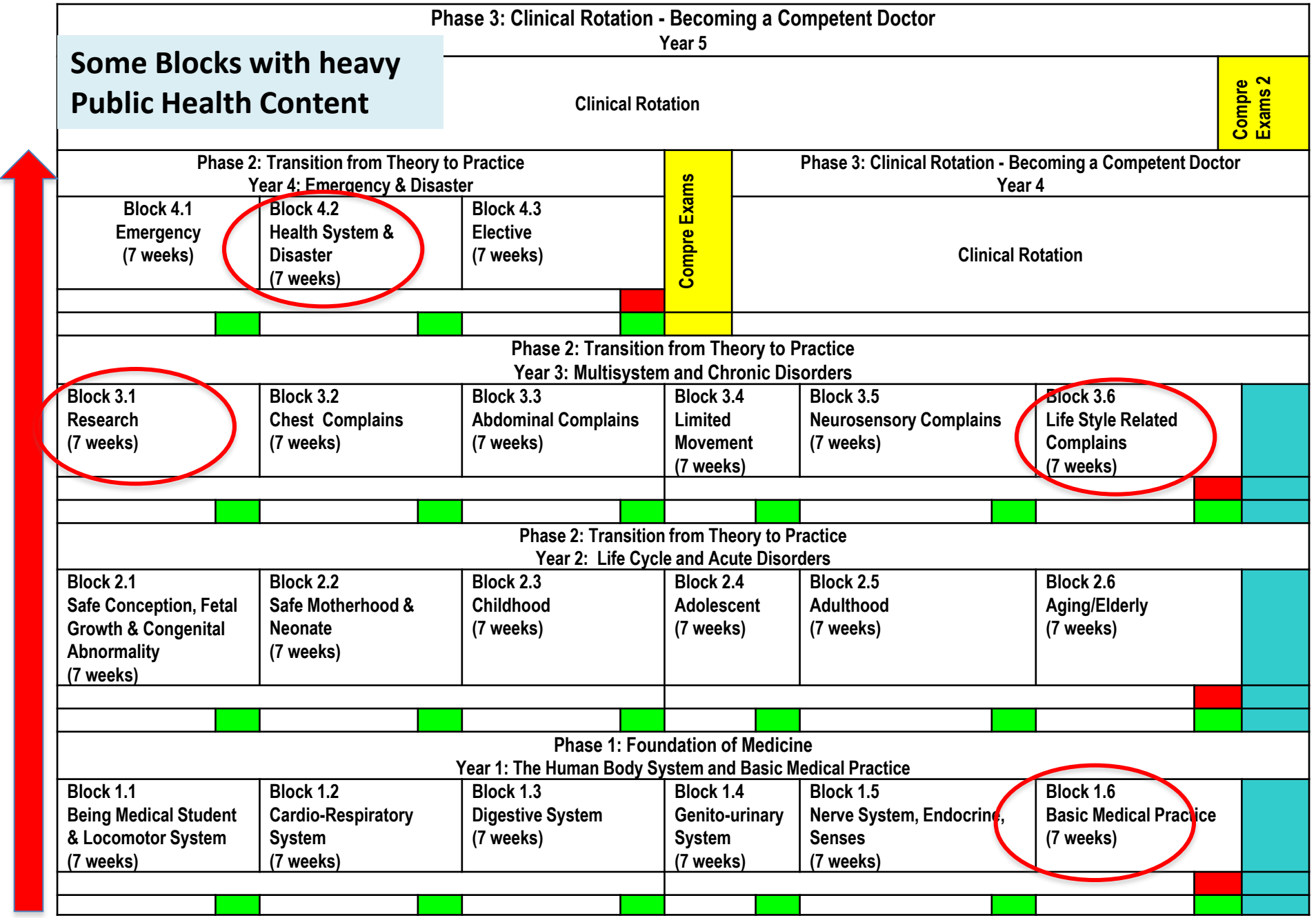
Block 3.1 Research (7 weeks)	Block 3.2 Chest Complains (7 weeks)	Block 3.3 Abdominal Complains (7 weeks)	Block 3.4 Limited Movement (7 weeks)	Block 3.5 Neurosensory Complains (7 weeks)	Block 3.6 Life Style Related Complains (7 weeks)

Phase 2: Transition from Theory to Practice
Year 2: Life Cycle and Acute Disorders

Block 2.1 Safe Conception, Fetal Growth & Congenital Abnormality (7 weeks)	Block 2.2 Safe Motherhood & Neonate (7 weeks)	Block 2.3 Childhood (7 weeks)	Block 2.4 Adolescent (7 weeks)	Block 2.5 Adulthood (7 weeks)	Block 2.6 Aging/Elderly (7 weeks)

Phase 1: Foundation of Medicine
Year 1: The Human Body System and Basic Medical Practice

Block 1.1 Being Medical Student & Locomotor System (7 weeks)	Block 1.2 Cardio-Respiratory System (7 weeks)	Block 1.3 Digestive System (7 weeks)	Block 1.4 Genito-urinary System (7 weeks)	Block 1.5 Nerve System, Endocrine, Senses (7 weeks)	Block 1.6 Basic Medical Practice (7 weeks)


Phase 3: Clinical Rotation - Becoming a Competent Doctor
Year 5
Some Blocks with heavy Public Health Content
Clinical Rotation
Compre Exams 2
Phase 2: Transition from Theory to Practice
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Block 1.6 Basic Medical Practice (7 weeks)

Blocks with heavy Public Health contents

1.6: Basic Medical Practice

3.3: Research Method

3.6: Life Style Related Complaints

4.2: Health System and Disaster

Blocks with heavy Public Health contents

Mix of discipline and Interdisciplinary material

1.6: Basic Medical Practice

More for Discipline-based material

3.3: Research Method

3.6: Life Style Related Complaints

Mix of discipline and Interdisciplinary material

4.2: Health System and Disaster

The case of Block 4.2: Health System and Disaster

- Historically is a brand-new Block which provides some discipline-based and interdisciplinary content of Public Health
- Most of the Interdisciplinary subjects of Public Health is learned in this Block

Why there is a block for health system and disaster?

(5 weeks, at the end of pre-clinical training)

The main issues:

1. Medical Doctor as a profession in health systems
2. The wide variation of Indonesian health system
3. A normal system can be broken down in disaster
4. Preparation for entering the real world of work

The departments involved and the Content

The leading Department: Public Health

Together with other Departments (Microbiology, Forensic, Parasitology, Surgery, Obstetrics and Gynaecology, Paediatrics) **provide materials in Discipline-Based**

Epidemiology, Family Medicine, Health Economics, Health Policy and Management, Medical Ethics and Professional Laws, Social and Behavioural Sciences

Plus:

Interdisciplinary material such as:

Interprofession education, Communication and IT, Surveillance Response

Leadership and Teamwork, Patient`s right and safety, Quality of Health Care, Professional and Personal Development, MDGs, Social Responsibility/Accountability, Disaster Management, Disaster Medicine

Learning objectives:

General objectives:

1. Understand the role and function of doctors as part of the health care system that caters to health problems of individuals, families and communities.
2. Understand the nature of disaster (both natural and man-made) and its impact towards health care, as well as be able to undertake required measures to anticipate disasters.

Specific objectives for Health System

1. Analyze the systemic concept and the sub-components within a health system globally, nationally and locally
2. Analyze payment system and mechanism for payment in relation to professional roles of medical doctors .
3. Analyze clinical governance, patient safety, quality in health care and clinical governance .
4. Use information concerning health issues in order to cope with potential epidemics/KLB .
5. Communicate with other team members, institutions and communities when identifying problems, making analysis, and planning for required action.
6. Possess leadership and managerial skills in order to handle health problems in the community.

Mix of:

- **Discipline-based**
- **Interdisciplinary material**

Specific Objectives for Disaster Management.

7. Explain the principles of disaster management.
8. Understand clinical emergency during disaster condition in a correct and ethical manner in accordance to own authority and competence .
9. Understand the various programs in disaster management, which includes coordination, medical team support, logistics, prevention of mental problems and spread of infectious disease, as well information system .
10. Practice triage principal and logistics management (laboratory/simulation) .
11. Understand basic principle of disaster victims identification (DVI) (laboratory).
12. Apply patient safety principles during disaster situations (laboratory/simulation).

Mix of:

- **Discipline-based**
- **Interdisciplinary material**

Learning activities in Block 4.2: Health System and Disaster

1. Tutorial: Using 5 Cases which have strong PH perspective
2. Independent Learning (Self Study): including using web-based materials
3. Expert Lectures: Including doctors from remote areas using Satellite Teleconference System .
4. Practical Session: Including Systemic Thinking.
5. Assignment: Including Triage in disaster simulation
6. Skills Laboratory: Including Team Work

Raise the Question: whether undergraduate medical students are interested in this Block.

Students perception after 3 academic year of implementation:

- For academic year 2010, 2011, and 2012 students choose Health System and Disaster as the most attractive Block.
- Notes: approximately around 95% of medical students want to be specialist.

Closing:
Lesson-Learnt of the 10-year of innovation

1. PBL can be a bad approach for PH teaching in medical education if not planned and executed properly;
2. PBL with Blocks which focus on PH material may strengthen the PH teaching in medical education;
3. Full PBL provides more space for interdisciplinary content.


Thank-you