



Japanese-German Symposium
Oldenburg, Germany
May 20-21, 2016



Higher Education
– Challenges and Current Developments –

Medical Education in Japan

- how the past inform the future -

President
Japan Society for Medical Education (JSME)

Professor and Chair
Department of General Medicine/Family & Community Medicine
Nagoya University Graduate School of Medicine

Nobutaro Ban, MD, PhD

Origin of Kampo Medicine



German doctors who contributed the medical education in Japanese university



Dr. Benjamin Carl Leopold Müller
1871 - 75

Dr. Theodor Eduard Hoffmann
1871 - 75



Dr. Erwin von Bälz
1876 - 1902

German doctors who contributed the medical education in Japanese university



Dr. Erwin von Bälz
1876 - 1902

Dr. Julius Karl Scriba
1881 - 1901

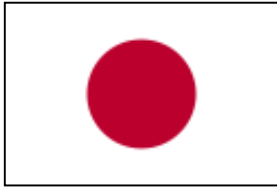
Presentation Outline

Medical education in Japan

- **Brief overview of Japan**
- **Current status** - with Δ in last 20 years
- **Future direction**



Background Information about Japan



Area

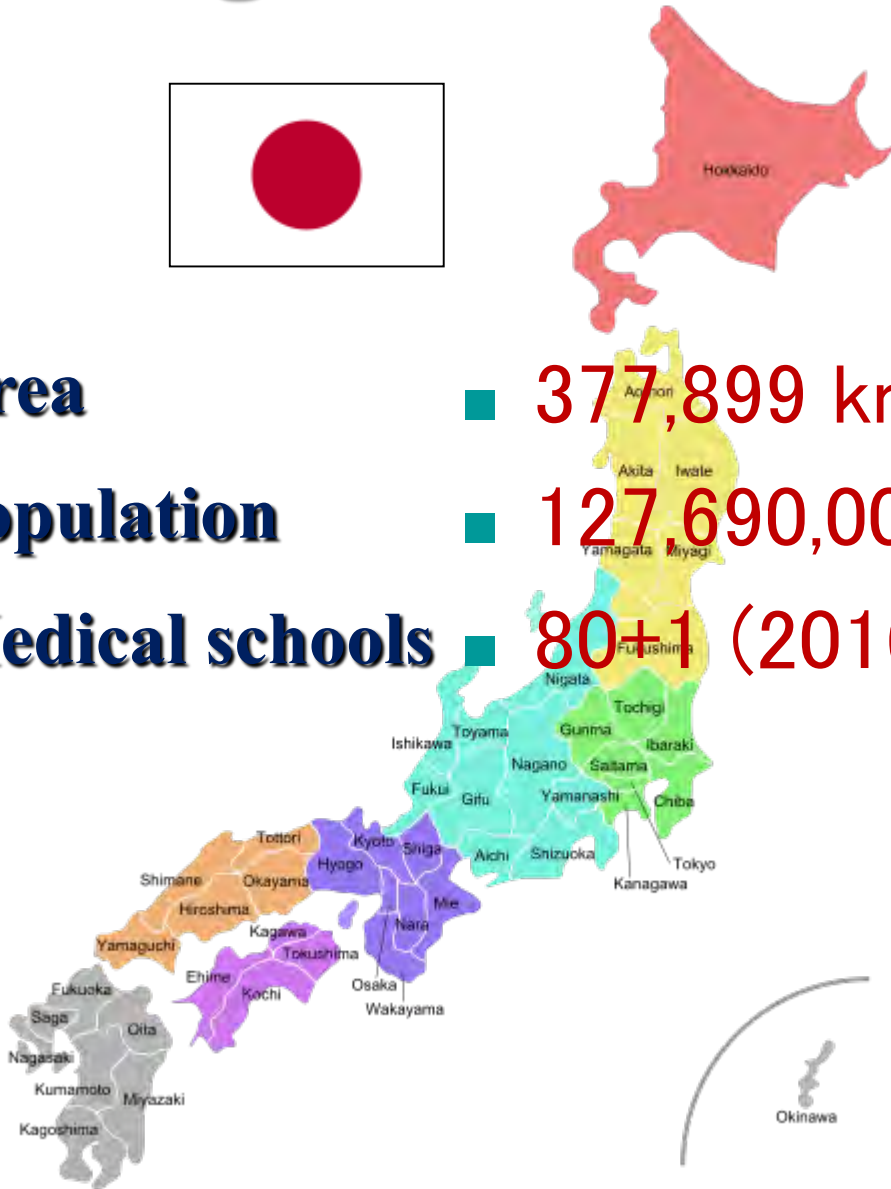
■ 377,899 km²

Population

■ 127,690,000

Medical schools

■ 80+1 (2016)





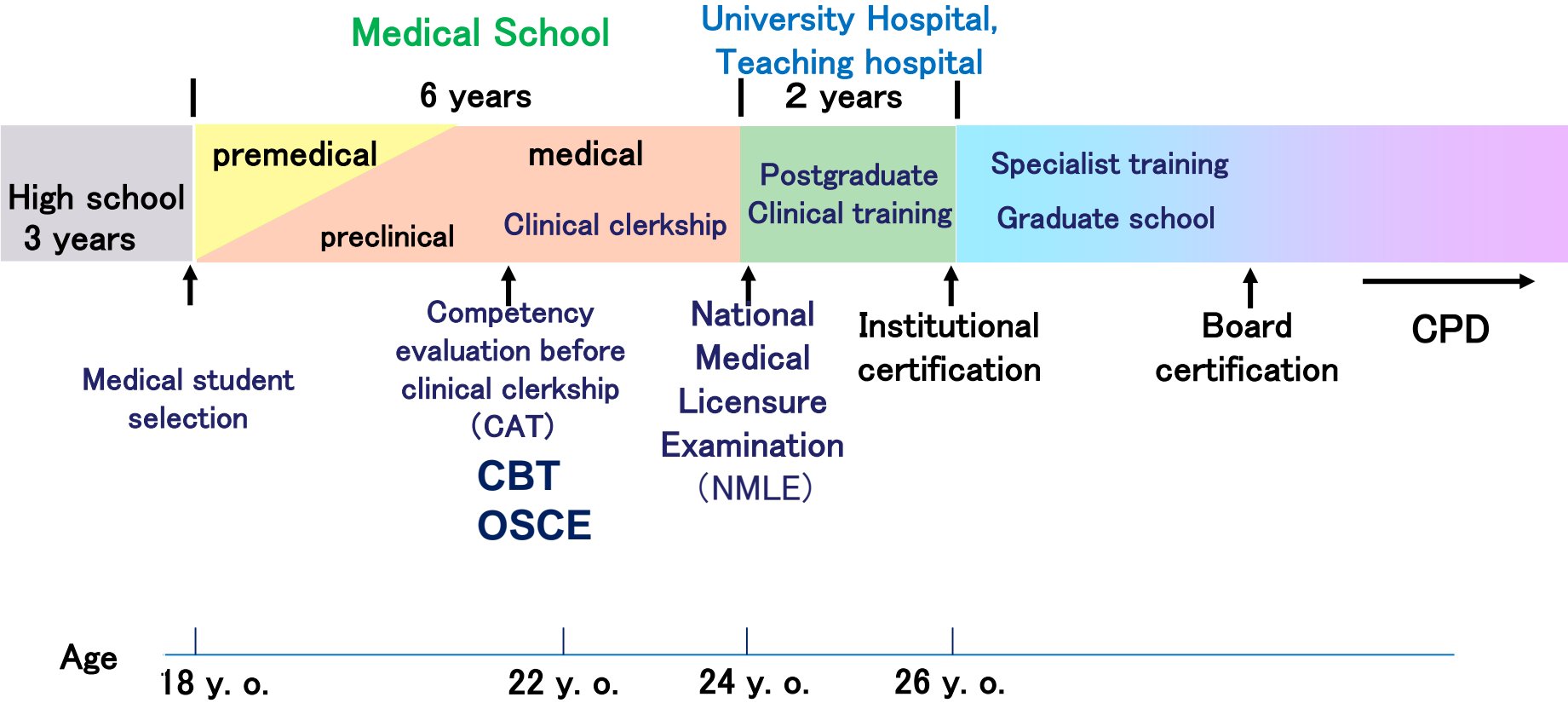
Presentation Outline

Medical education in Japan

- **Brief overview of Japan**
- **Current status** - with Δ in last 20 years
- **Future direction**



Medical Education System in Japan



CBT: Computer-Based Testing
 OSCE: Objective Structured Clinical Examination

Health professionals for a new century

- Transformative learning
- Interdependence in education



Frenk J, Chen L, et al. 2010. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet* 376(9756): 1923-1958.

Changing trend in medical education (1)

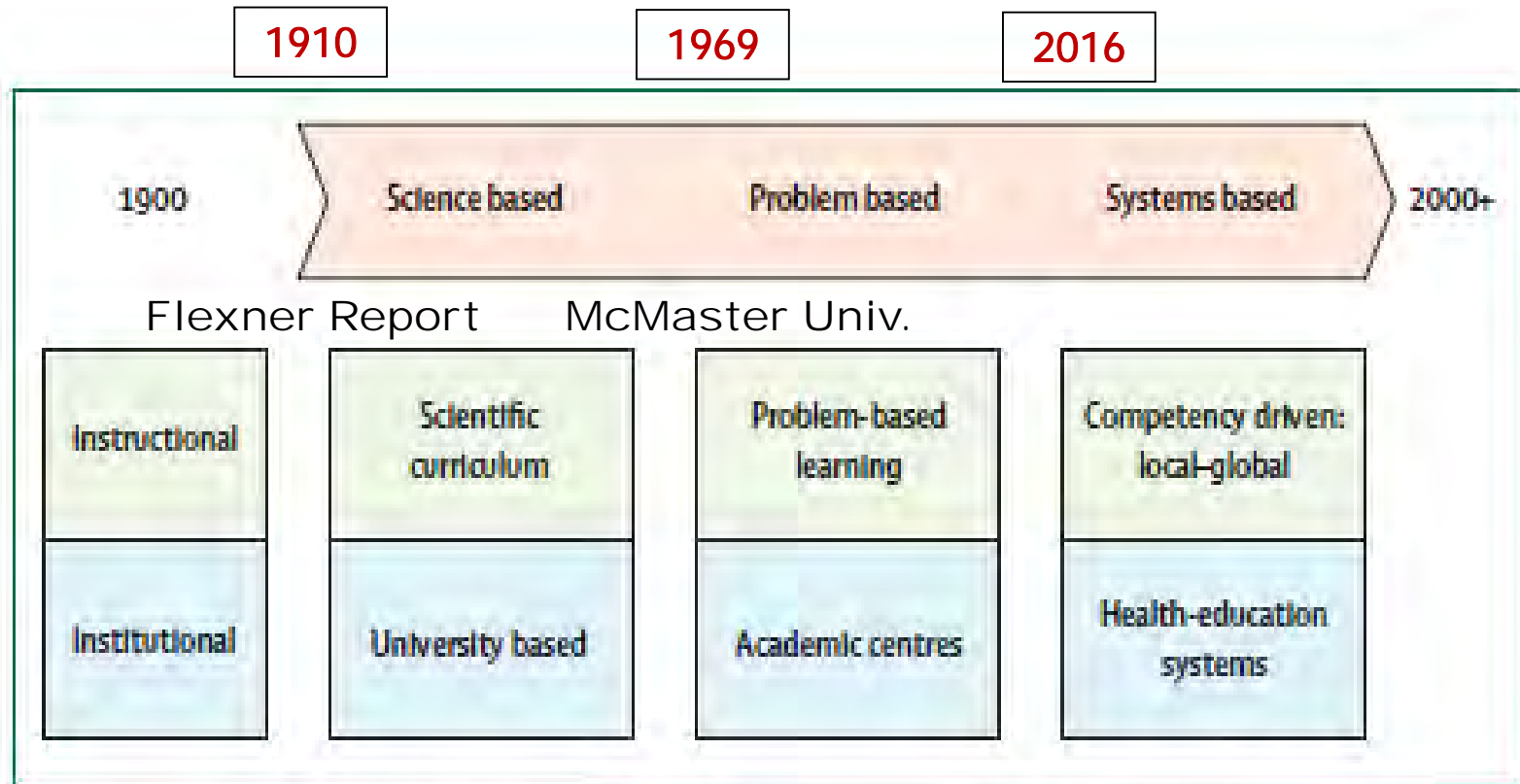


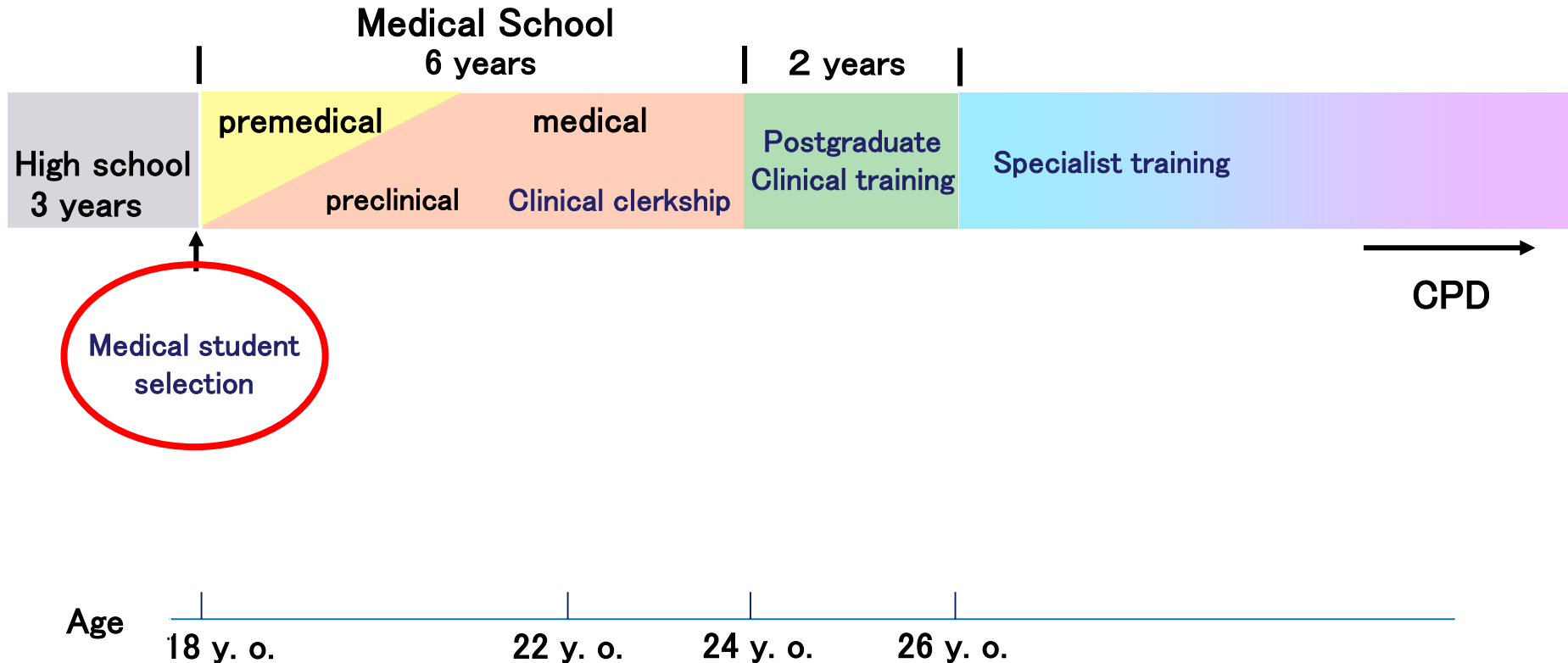
Figure 5: Three generations of reform

(Frenk J, et.al. Lancet 2010; 376(9756): 1923-1958.)



Change in Medical Education

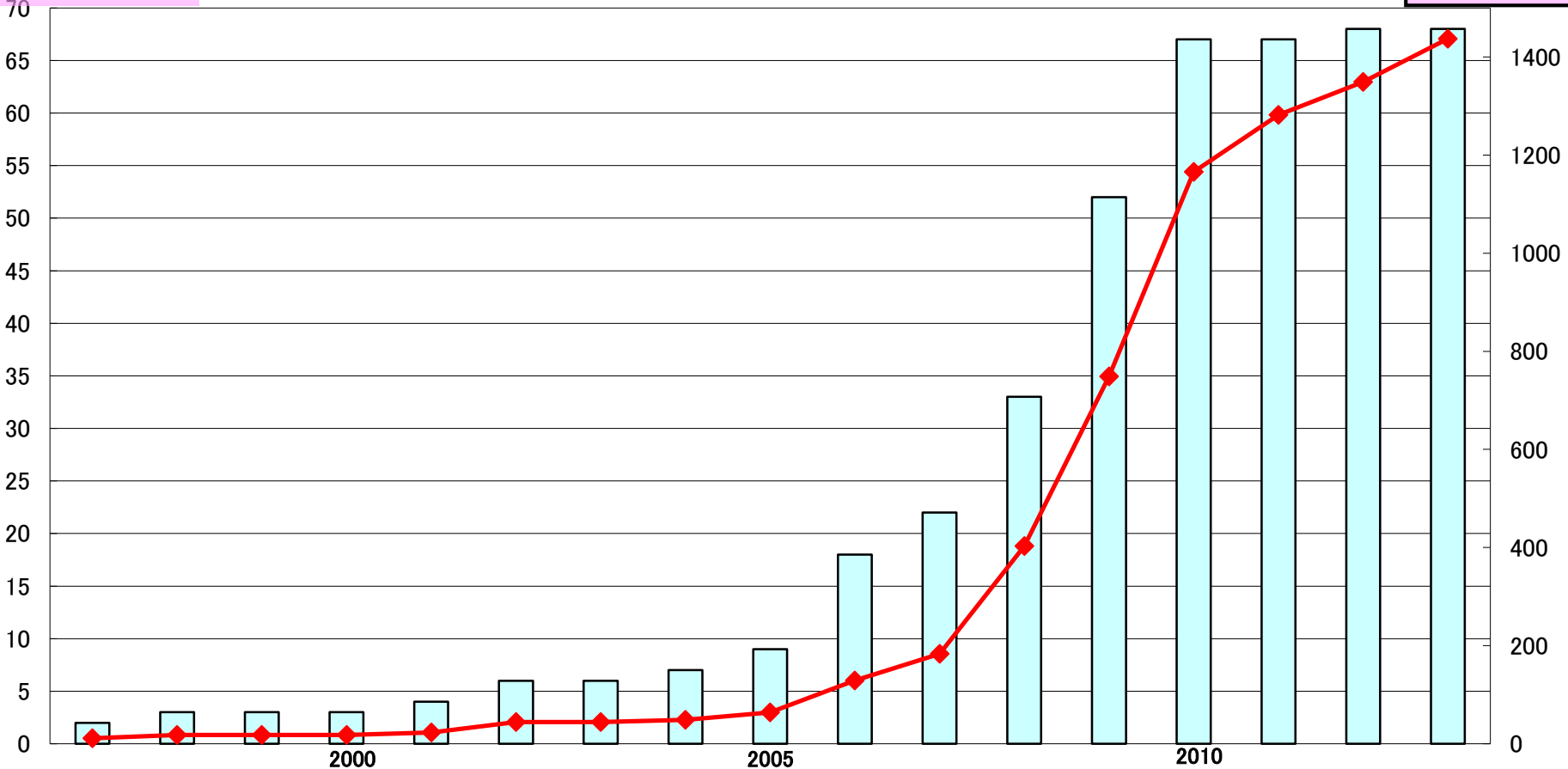
— *last 20 years* —



Special slots for community medicine

Number of schools

Number of slots

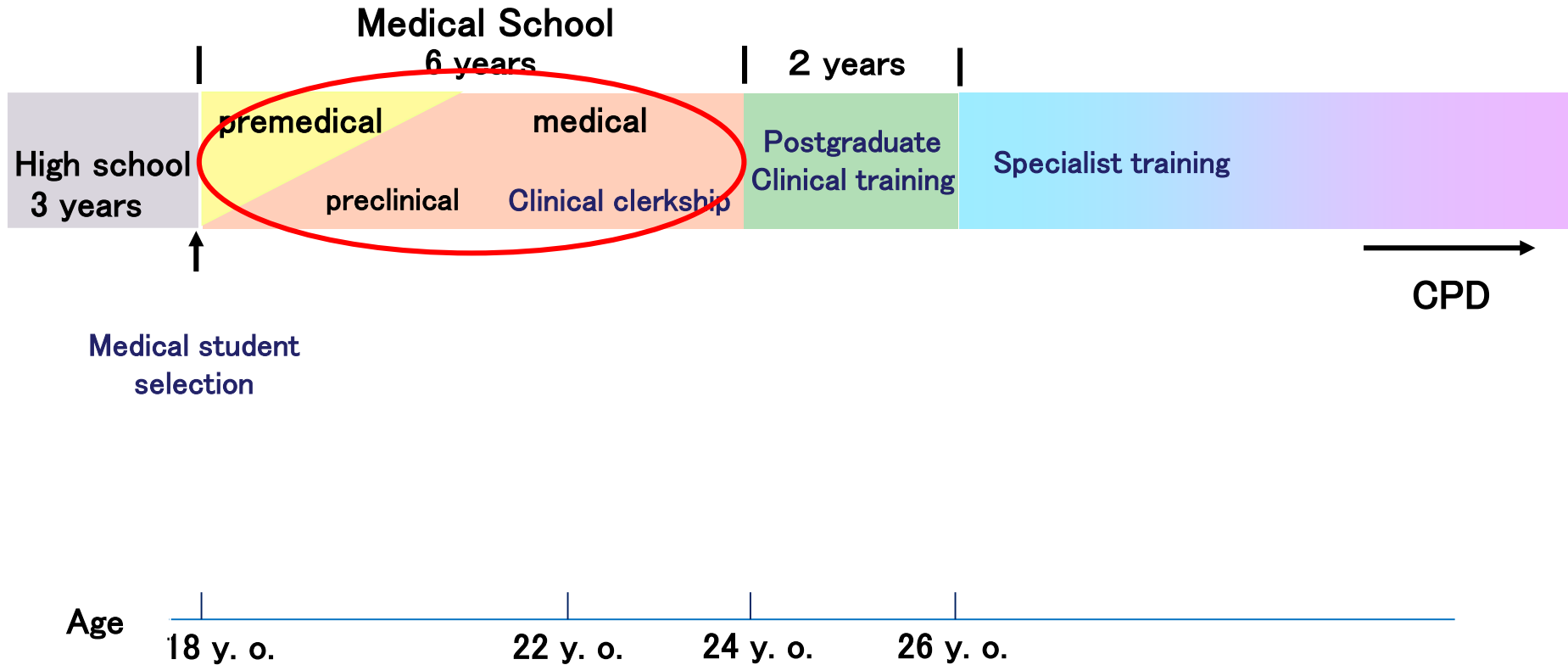


Medical Schools in Japan (80)

H25.5 MEXT

Change in Medical Education

— *last 20 years* —



History of PBL in Japan

1990 **PBL was first introduced to Tokyo Women's Medical University**

Number of schools adopting PBL as of 2013

YES **75**

NO **5**

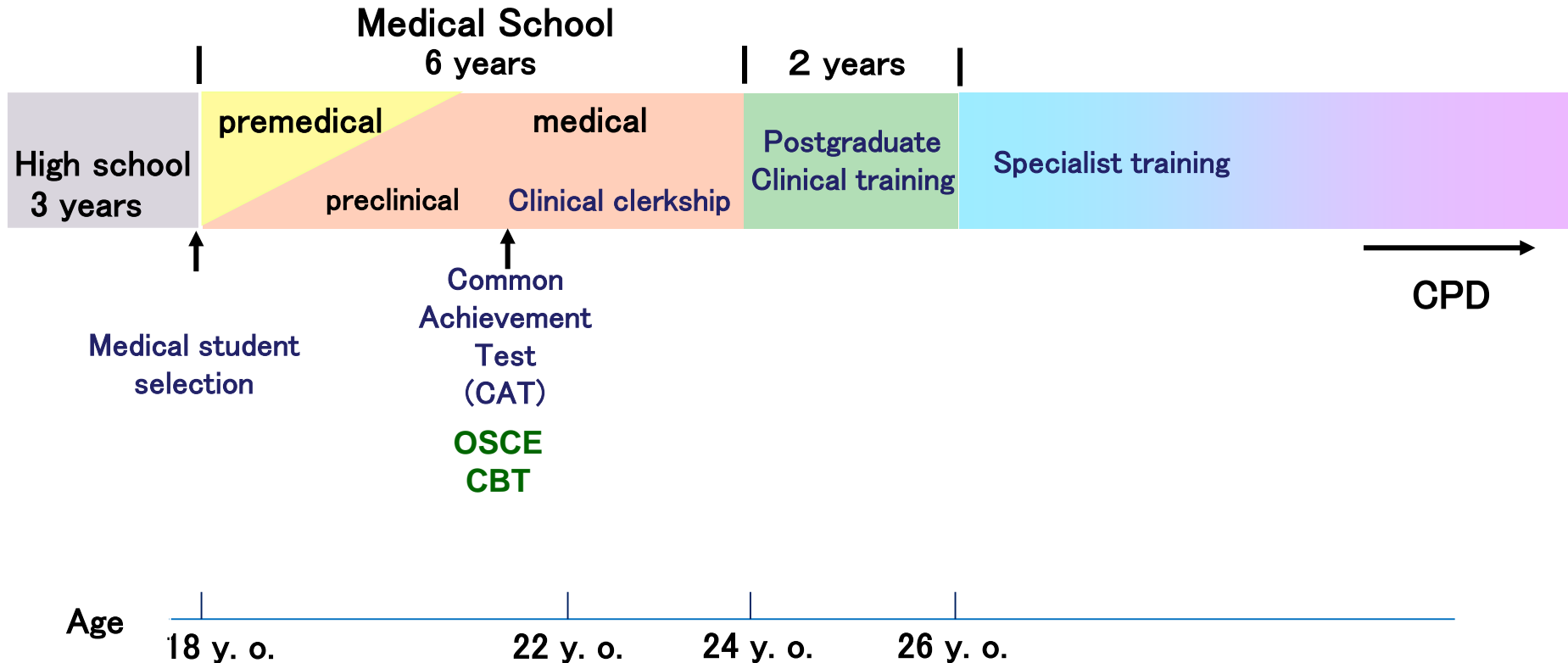


More than 50% of schools (40/75) are suffering from the difficulty to run PBL



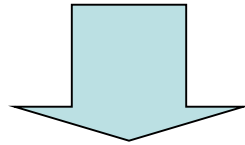
Change in Medical Education

— *last 20 years* —



COMMON ACHIEVEMENT TEST (CAT) 2005~

- **OSCE**
- **Computer-based Testing**



*All medical students are required
to pass those examinations
before going into
clinical clerkship*

OSCE

Minimum Requirement



Medical Interview (10 min)

→**HEENT exam. (5 min)**

→**CHEST exam. (5 min)**

→**ABD exam. (5 min)**

→**NEURO exam. (5 min)**

→**CPR &/or SURG (5 min)**



CBT (Computer-Based Testing)

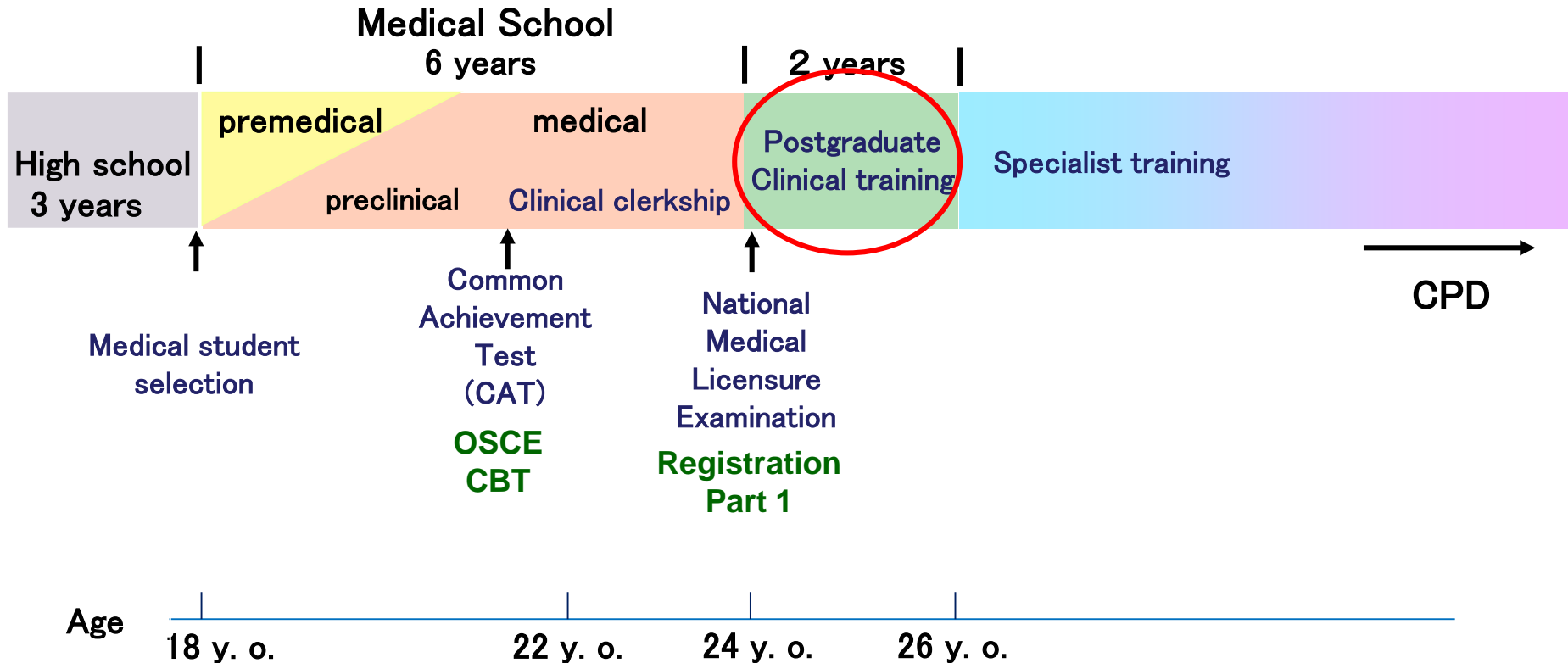
- ✓ **Computer-based**
- ✓ **Multiple choice exam.**
- ✓ **320 questions randomized**





Change in Medical Education

— *last 20 years* —



First 2-year mandatory postgraduate training

2004~

Requirement	Discipline	Training period
Mandatory	Internal med.	$\geq 6\text{Mo}$
	Emergency med.	$\geq 3\text{Mo}$
	Community med.	$\geq 1\text{Mo}$
Selective	Surgery	<ul style="list-style-type: none"> ▪ pick up ≥ 2 disciplines ▪ Any period
	Pediatrics	
	OB/GYN	
	Psychiatry	
	Anesthesiology	
Others	Any disciplines	▪ Any period



Presentation Outline

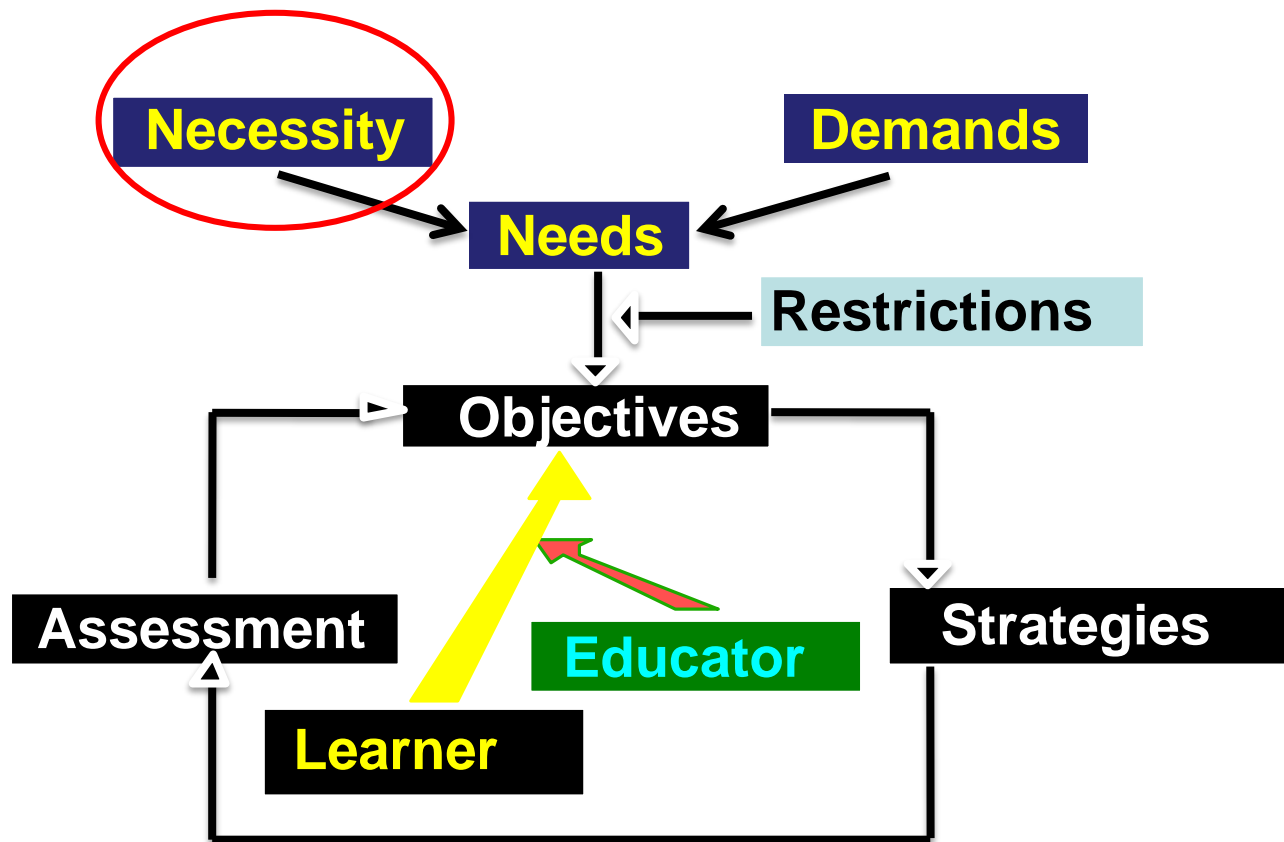
Medical education in Japan

- **Brief overview of Japan**
- **Current status** - with Δ in last 20 years
- **Future direction**



Process of Teaching/Learning

Social accountability is the most important agenda of the current medical schools



Factors influencing the change of medical education

- **Development of ICT** (Information and Communication Technology)
- **Aging population**
- **Specialization of medicine**
- **Increasing healthcare cost**

Teaching & Learning in 21st Century

Due to rapid change of

knowledge

technology

Due to easy access to

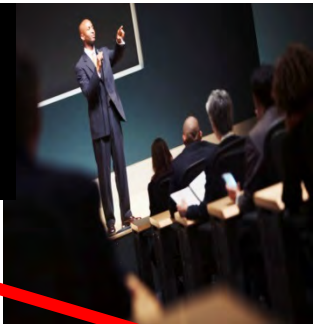
Information

Teacher

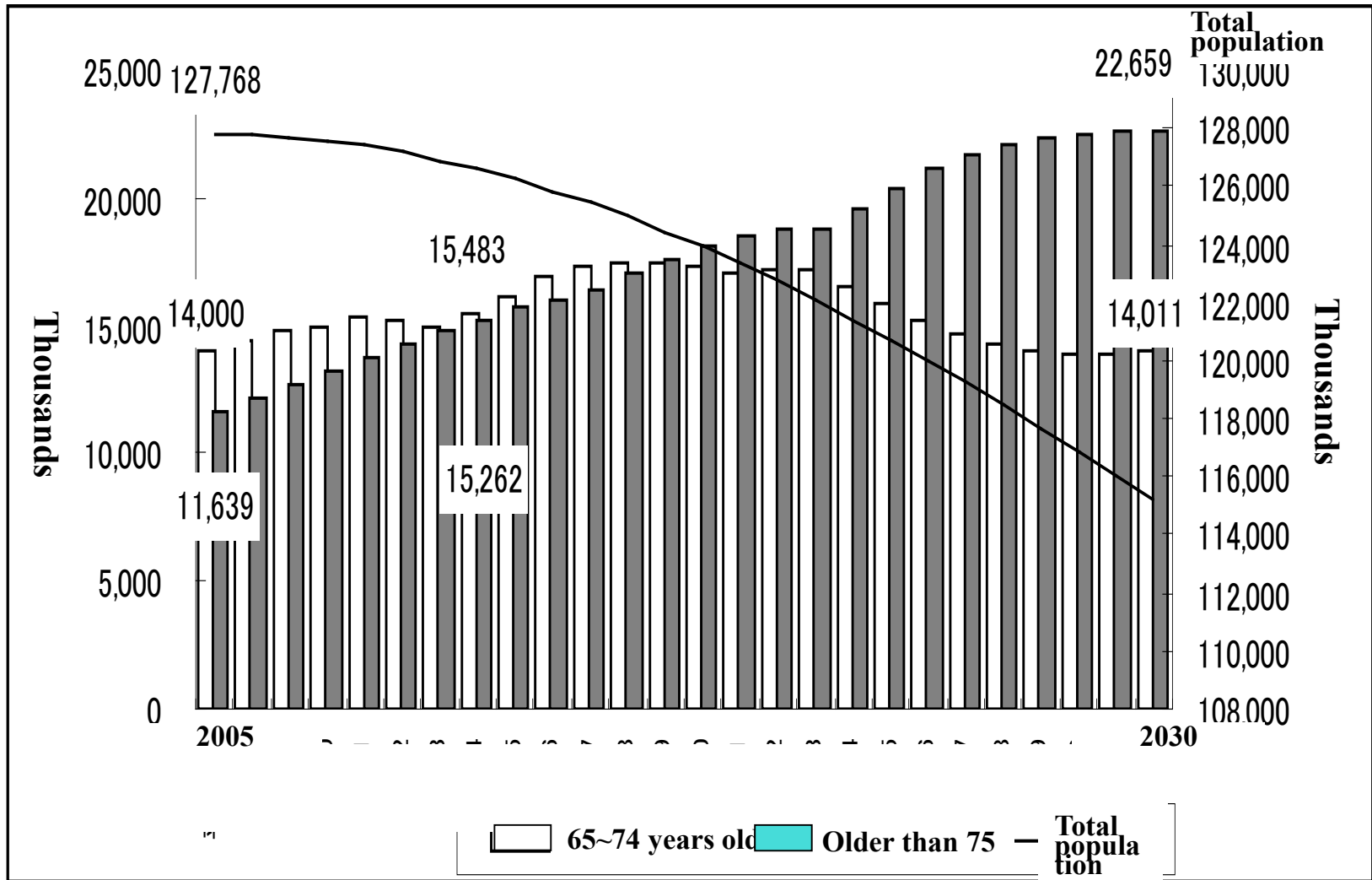
- 1) Knowledge
- 2) Skills
- 3) Attitude

Learner

Being transferred



Rapidly Aging Population in Japan



[Data from Statistics Bureau, Ministry of Internal Affairs and Communications]

Aging Japan

Country	Estimated date	Percentage of Total Population (%)		
		Over 65	Over 65 Under 74	Over 75
Japan ¹	2006. 9. 15	20.7	11.2	9.5
Italy ²	2004. 12. 31	19.5
Germany ²	2004. 12. 31	18.6
France ²	2006. 1. 1	16.2	8.1	8.1
England ²	2004. 7. 1	16	8.4	7.6
Russia ²	2004. 1. 1	13.4
Canada ²	2005. 7. 1	13.1	6.9	6.1
United States of America ²	2005. 7. 1	12.4	6.3	6.1
Korea ²	2005. 7. 1	9.1

【Data from Statistics Bureau, Ministry of Internal Affairs and Communications】

The Exponential Use Effect

Health Care use rises exponentially with age

The take-off point is around age 65

Health Care Use

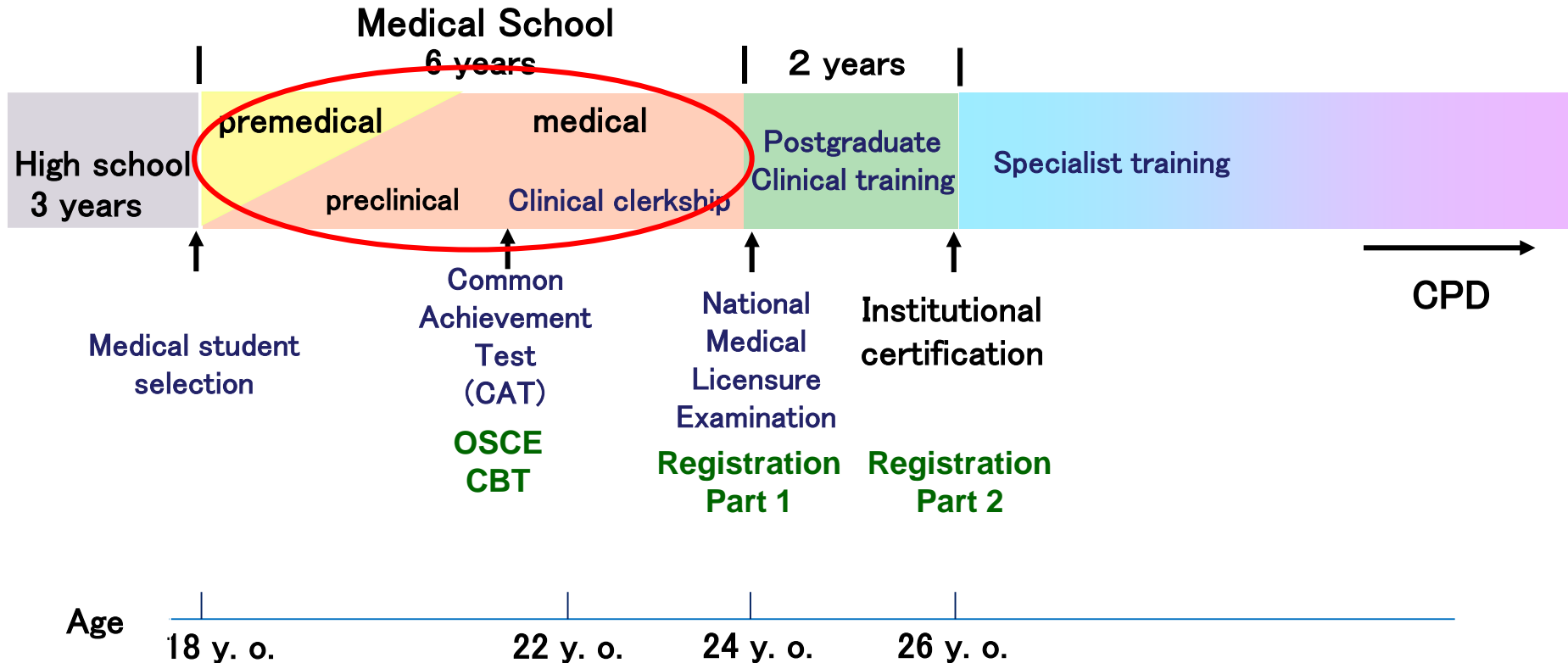


AGE

65



What kind of changes we are expecting ?





Accreditation in Japan



- Institutional accreditation YES
- Program accreditation of Medicine NO

Japan Accreditation Council for Medical Education (JACME)

◆ Pilot trial 2012

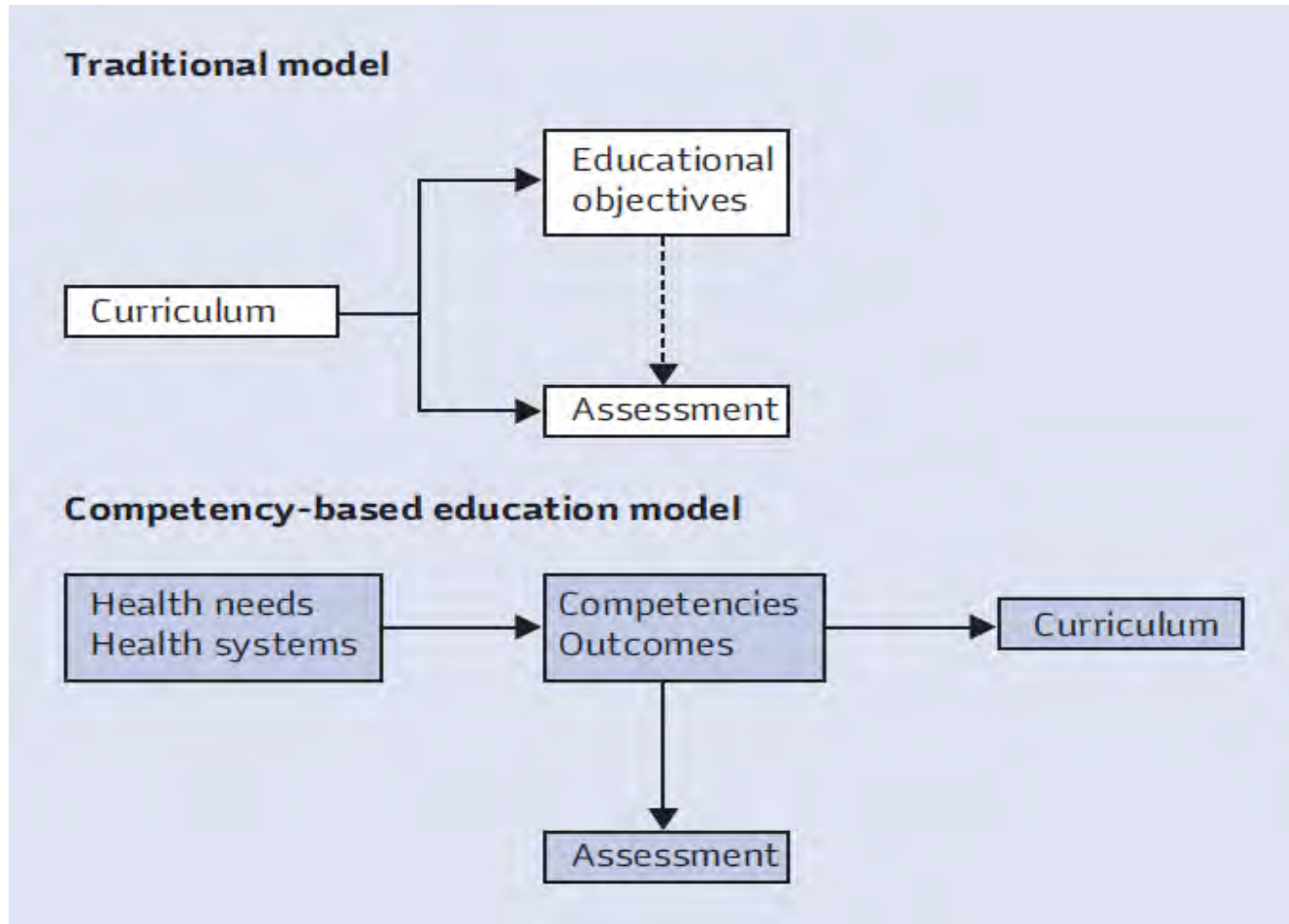
➤ 2012 ~ 2017

Five medical schools have been evaluated

◆ JACME officially started Dec., 2015

◆ Official accreditation by JACME start in 2017

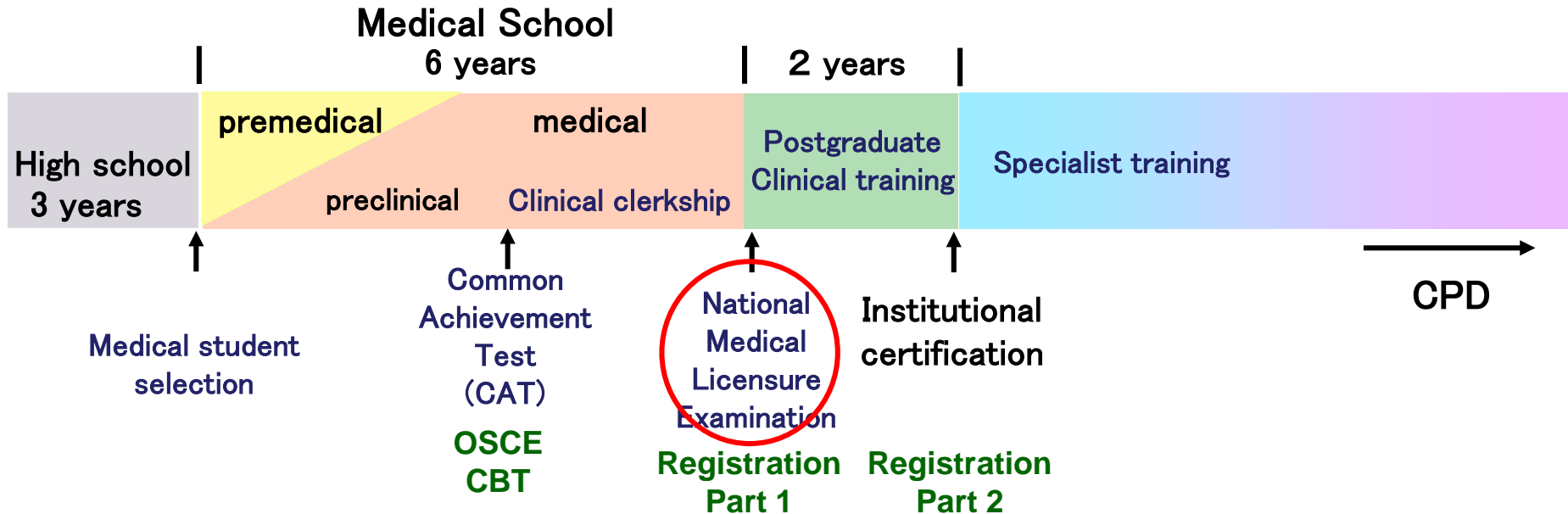
Competency-Based Medical Education



Frenk J, Chen L, et al. 2010. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet* 376(9756): 1923-1958.



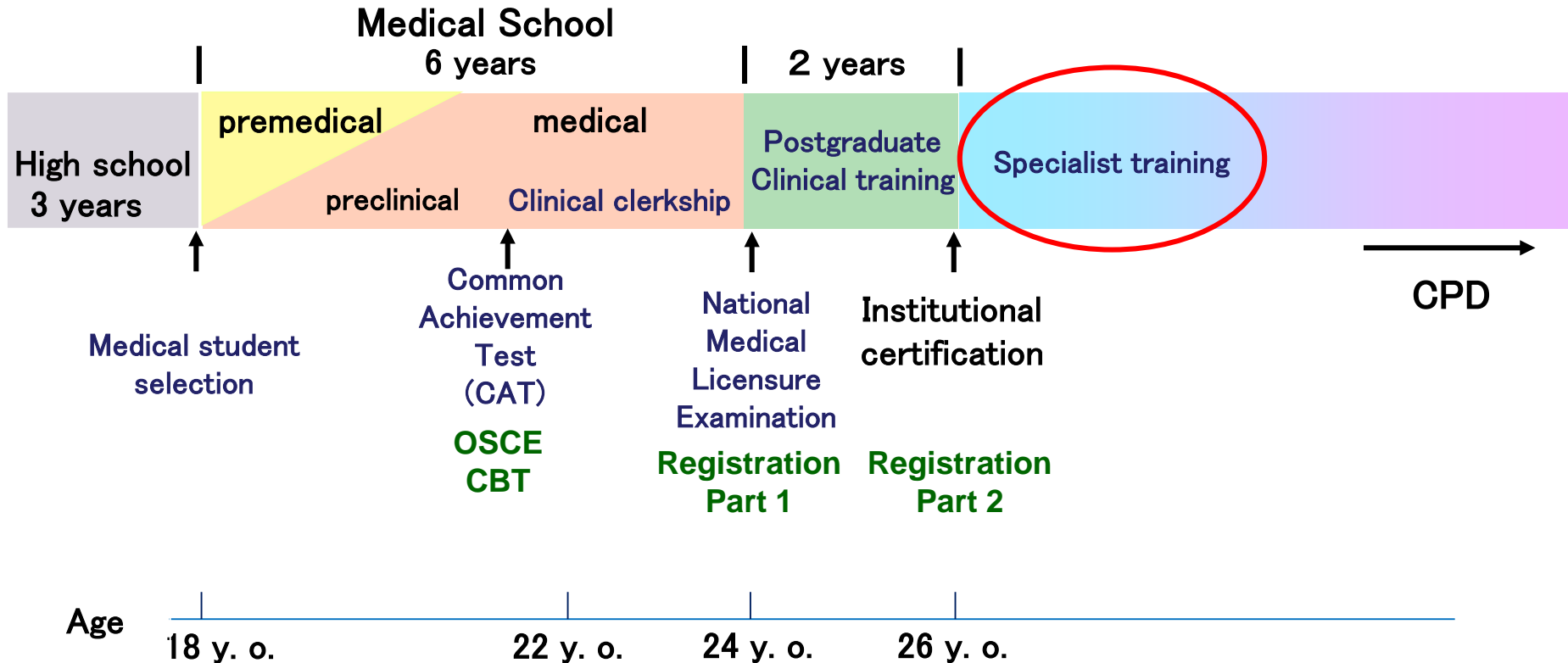
What kind of changes we are expecting ?



Introduction of OSCE

CAT vs NMLE

What kind of changes we are expecting ?



Basic Clinical Specialties

(By the committee for the future specialists training system)

- Internal medicine
- Psychiatry
- OB/GYN
- Urology
- Anesthesiology
- Emergency medicine
- Psychiatry
- Surgery
- Ophthalmology
- Neurosurgery
- Pathology
- Plastic surgery
- Dermatology
- Orthopedics
- Otorhinolaryngology
- Radiology
- Laboratory medicine
- Rehabilitation

19th Specialty → **General medicine (2017)**

Changing trend in medical education (2)

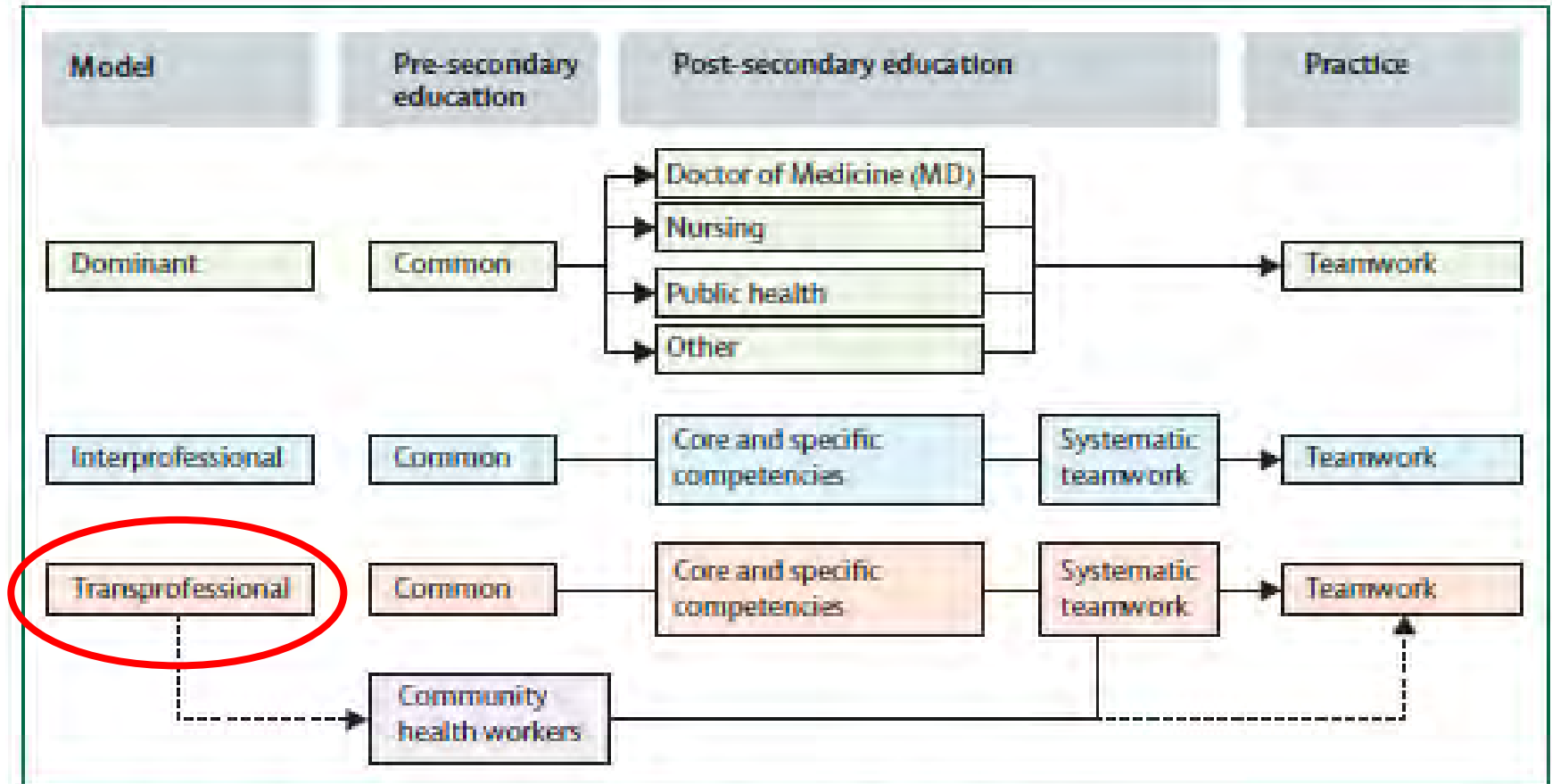
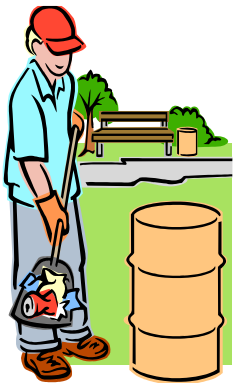


Figure 10: Models of interprofessional and transprofessional education

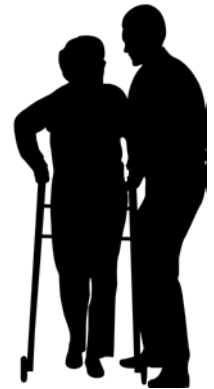
(Frenk J, et.al. Lancet 2010; 376(9756): 1923-1958.)

Transprofessional healthcare team

Advanced Nursing and Welfare System in a Society with many Elderly



- *GPs/FPs*
- *Allied health professionals*
- *Administrators, Health care volunteers, etc.*



Problems of medical education in Japan

- Medical schools have been slow to respond to the demographic and economic change.
- Aging population and lack of well trained generalists caused the disruption of community healthcare system and surge of healthcare costs.
- Ministry level enforcement and strong academic society are pushing the change of the medical education system.

Japan Society for Medical Education (JSME)



<http://jsme.umin.ac.jp/index.html>

Established in 1969

Mission

JSME will have a central role in Japan to improve the quality of medical education by bringing together individuals and organizations with interests and responsibilities in medical and healthcare education to promote research, education, and clinical activities.

Danke schön



E-mail

nobuban@med.nagoya-u.ac.jp

Q & A

