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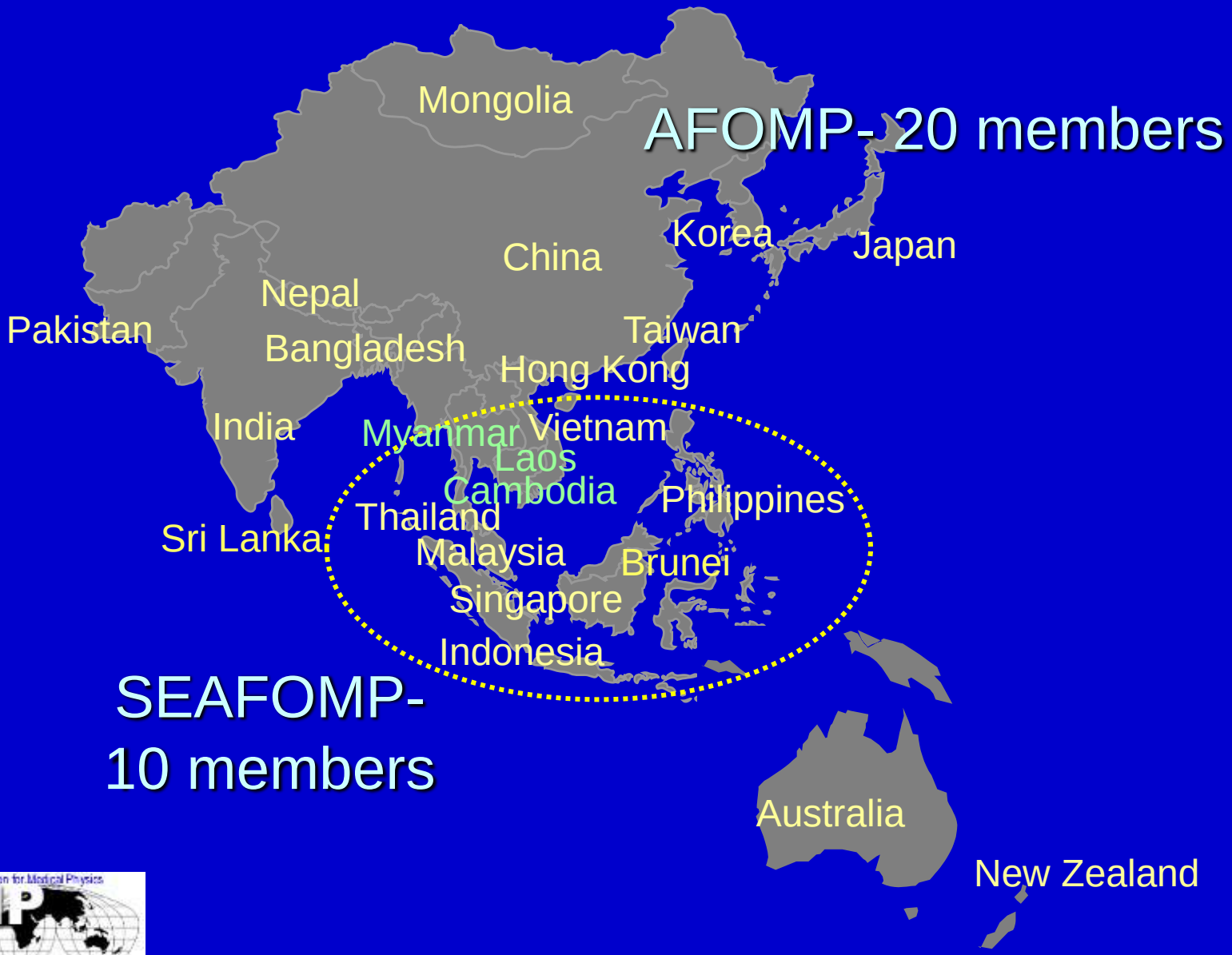
Status of Medical Physics in Asia

Kin-Yin Cheung
President, IOMP
Hong Kong Sanatorium & Hospital, Hong Kong

IOMP Regional Organizations in Asia



AFOMP & SEACOMP Contributions to Regional Development

Encouraging progress has been made in standard of practice of the medical physicists in the region over recent years, particularly after formation of AFOMP and SEAFOMP in year 2000

- Established annual regional scientific and educational meetings that fostered/maintained close collaborations
- Motivated regional & international interaction and sharing of knowledge, experience & resources
- MPs are better connected, so is the flow of information and mutual support

Regional Scientific Activities

AFOMP (AOCMP): 13 conferences since formation in 2000

SEAFOMP (SEACOMP): 11 meetings since formation in 2000

AOCMP	SEACOMP
2001- Bangkok, Thailand	2001- Kuala Lumpur , Malaysia
2002- Gyeongju, Korea	
2003- Sydney, Australia	2003- Bangkok, Thailand
2004- Kula Lumpur, Malaysia	2004- Kuala Lumpur, Malaysia
2005- Kyoto, Japan	2005- Jakarta, Indonesia
2006- Seoul, Korea	
2007- Huang Shan, China	2007- Manila, Philippines
2008- Ho Chi Minh City, Vietnam	2008- Ho Chi Minh City, Vietnam
2009- Chiang Mei, Thailand	2009- Chiang Mei, Thailand
2010- Taipei, Taiwan	2010- Bandung, Indonesia
2011- Fukuoka, Japan	2011- Bohol, Philippines
2012- Chang Mai, Thailand	2012- Chang Mai, Thailand
2013- Singapore	2013- Singapore

Status on Radiation Oncology Physics

Recent surveys conducted on medical physics in Asia Region:

1. AFOMP 2007 (8 countries)
2. Kron et al 2008 (17 countries)
3. IAEA 2011 (16 countries)
4. Kron et al 2012 (22 countries)

Key Statistics in Radiation Oncology Physics

	2008	2012	Change*
Total no. of ROMPs	2479	3868	+31%
Total MV machines (linac & Co-60)	3260	3705	+11%
Total Afterloading Brachytherapy Unit	No data	462	-
Special RT Systems (CK, GK, Tomo, Particle)	206	419	+102%

Comparing the data from the same 17 countries surveyed in the two surveys.

Key Statistics in Radiation Oncology Physics

	Year 2008	Year 2012*	Change*
No. of patients per ROMP	566 (300-2000)	524 (300-1500)	-7%
ROMP per Oncologists	0.45 (0.2 - 2)	0.57 (0.2 - 2.0)	+27%
No. of ROMP per MV machine (mean)	1.0 (0.65-1.85)	1.19 (0.67-2.12)	+19%
MV machines per Mn population (mean)	2.39	2.37	-1%

Comparing the data from the same 17 countries surveyed in the two surveys.

Additional ROMPs Required

Year	No. of ROMPs	Patients/ ROMP	No. of ROMP According to IAEA Recommendation*	Additional ROMPs Required
2008	2854	566	4038	1184
2012	3792	524	4967	1175

*400 Patients per ROMP (IAEA Pub No. 1296 “Setting up of Radiotherapy Programme”, 2008)

Status on Imaging Medical Physicists (IMP)

1. As compare with ROMP, IMP is less established in AFOMP region
2. Most IMP works on nuclear medicine & MRI
3. Most radiology departments do not have IMP
4. Total number of IMP is about 10% of ROMP
5. With increasing use of imaging in radiation oncology, the demand for IMP (as well as ROMP) in imaging is expected to increase

Minimum Educational Requirement for MP (2012)

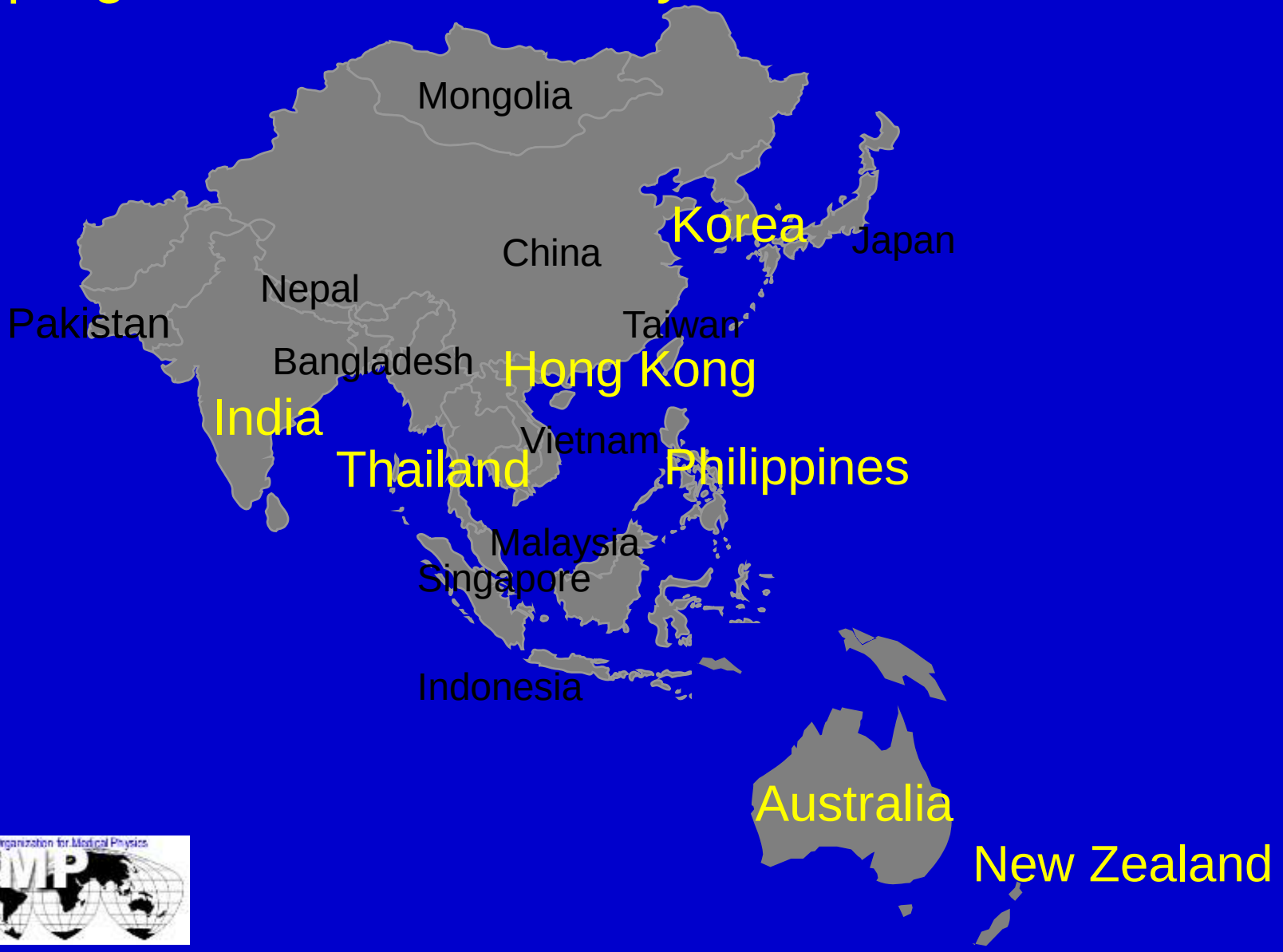
Degree	No. of Countries	College Years
B.Sc.	11 (M.Sc. Preferred)	3 - 4 years
M.Sc.	11	4 – 6 years

Clinical Training (2012)

Type of clinical training	Countries	Duration
Formal clinical training	7* Countries (32%)	1-3 years
Informal on the job training	15 countries (68%)	0.25 – 5 years

*5 countries had state recognition

Countries/regions running formal clinical training programs for Medical Physicists



Professional Certification or Registration

Professional Issues	No. of Countries
Mandatory certification system	0
Voluntary professional certification	8 (36%)
Voluntary CPD system	8
State registration of MPs	0

Professional Certification

- Professional certification is considered by MPs as important quality control measure
- Only a few scountries ucceeded in establishing voluntary professional certification system. Most countries do not have sufficient membership in setting up & maintaining the system.
- Member organizations are active in getting either national or international accreditation
- 58% (7 countries) of the Chartered Members of IMPCB are from AFOMP countries

Medical Physicists Job Satisfaction

	Mean Score* 2008	Mean Score* 2012
Professional recognition	2.33 (2 - 4)	3.0 (2 - 4)
Remuneration	2.67 (2 - 4)	2.73 (1 - 4)
Workload	2.03(1 – 3.5)	2.2 (1 - 3)

*Mean score 1 is worst and 5 is best.

Summary

1. There is still a large shortage of MPs in AFOMP region
2. Lack of official recognition of the profession- The contribution and professional status of MPs in healthcare are not fully recognized officially in many AFOMP countries.
3. Formal system for professional training for MP is available in only 32% of the countries
4. There is no state registration/control of MP practice in medicine
5. Most countries has yet to establish professional certification system for MP

Thank you!