



31 October, 2022

# **Webinar Series**

## **#3. Medicine**



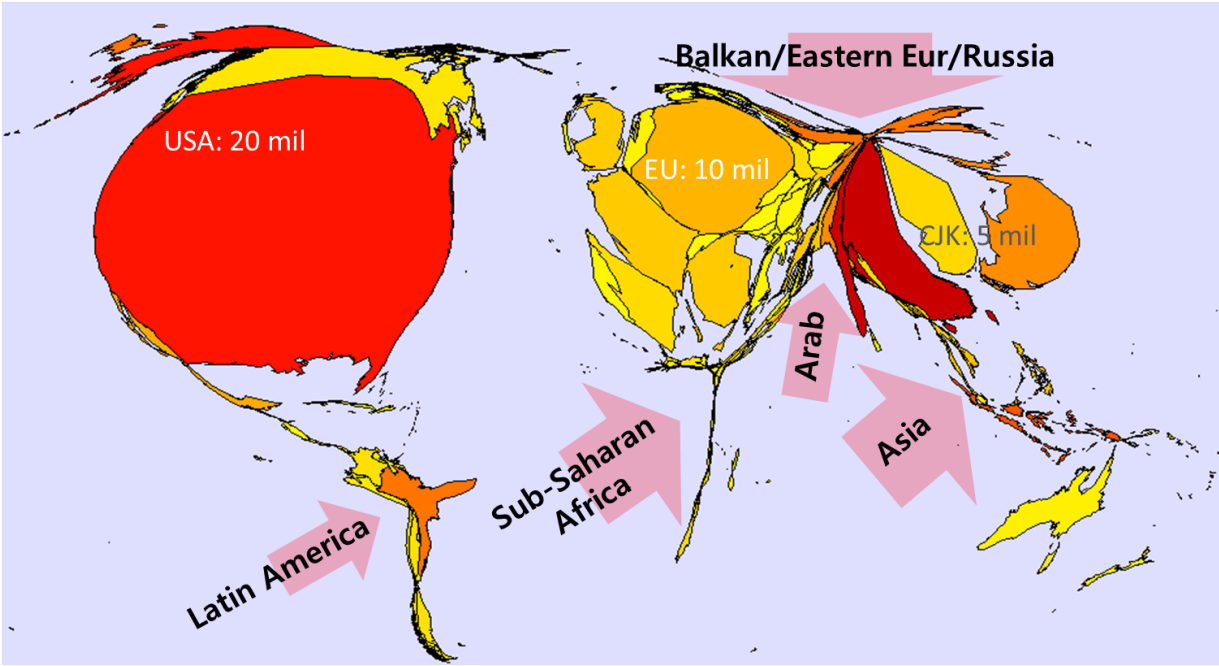
# **Consolidation of Quality Care of Nuclear Medicine using Asi@Connect in Asian Countries**

Dong Soo Lee and Minseok Suh, Seoul National University, Korea

# Background and Then-Status of NM 2015

## Nuclear Medicine Procedures: Imaging and Therapy

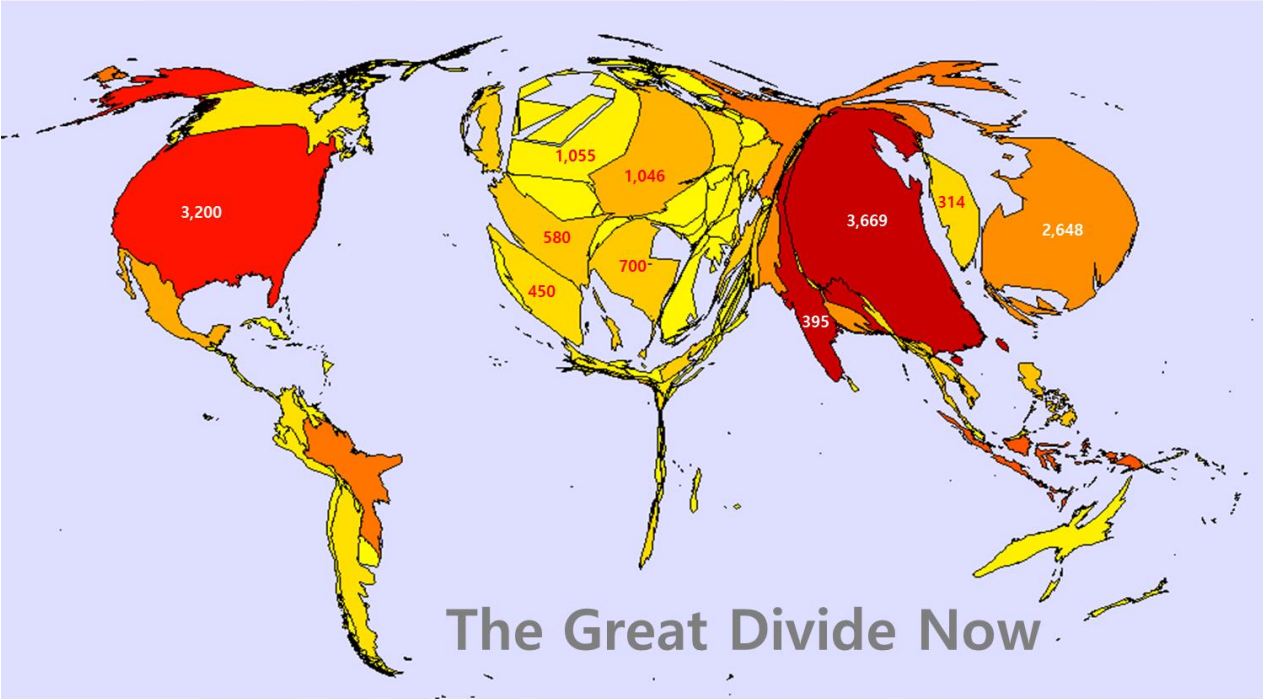
Area means number of annual number of procedures



(Volume of Nuclear Medicine Procedures: NUMDAB IAEA & DDM2 Report EU)

## Number of Nuclear Medicine Physicians: world needs...

Experts (chemists/pharmacists & physicists as well as physicians) properly trained

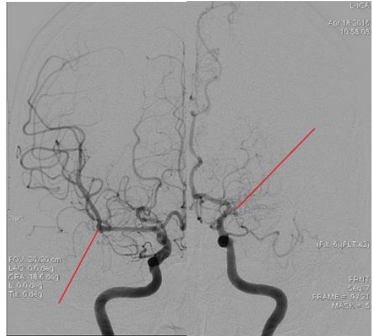


(Number of Nuclear Medicine Physicians: NUMDAB IAEA & DDM2 Report EU)  
(Color means Population: UN, 2015)

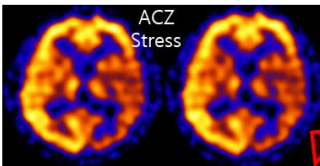
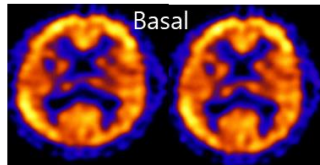
# Nuclear Medicine

## Imaging as Therapy-Guide: Anatomy (Angio) & Function (SPECT)

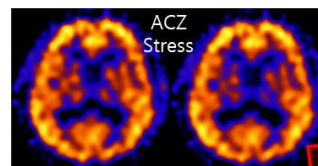
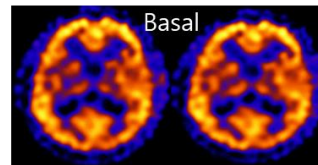
### Carotid Artery Stenosis



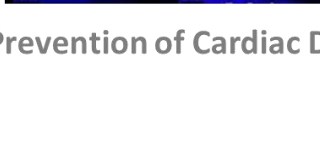
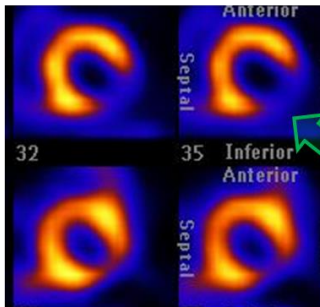
### Prevention of Stroke and Neurologic Deficit



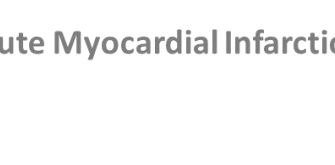
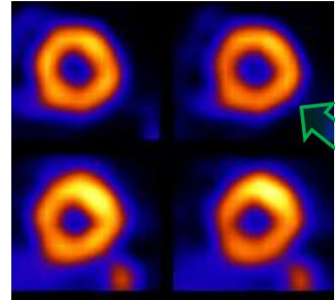
Bypass Operation



### Coronary Artery Stenosis



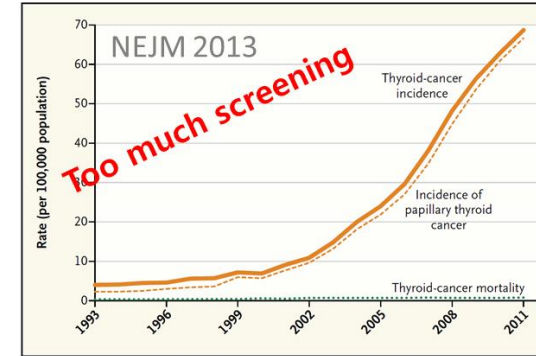
Stent Insertion



### Prevention of Cardiac Death & Acute Myocardial Infarction

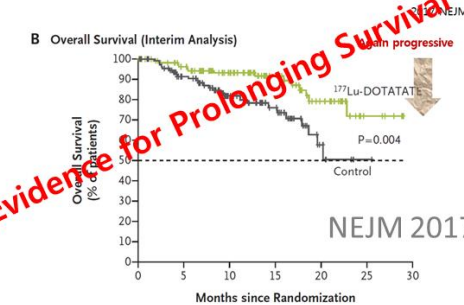
## Nuclear Med. Therapy and Theranostics

### Lu-177 Therapy and Imaging by SPECT/CT

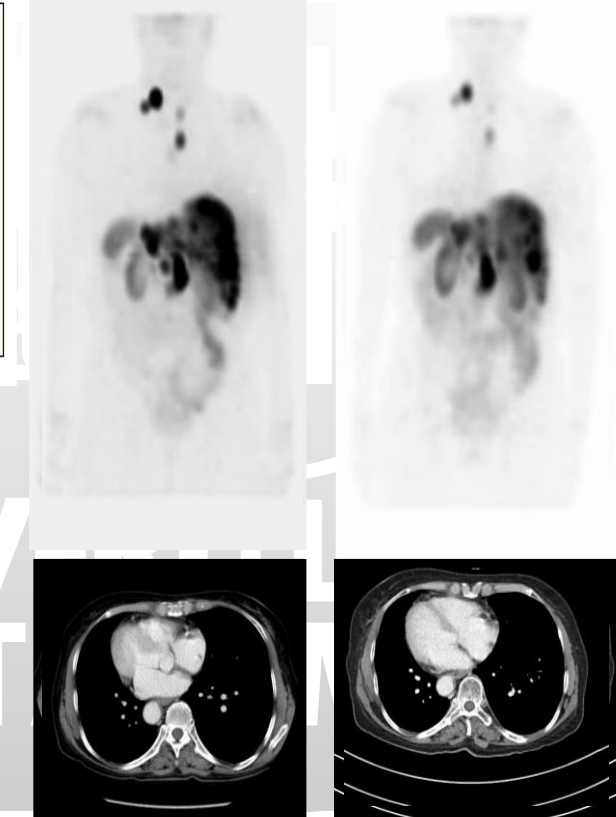


Thyroid-Cancer Incidence and Related Mortality in South Korea, 1993-2011.

### Phase 3 Trial of <sup>177</sup>Lu-Dotatate for Midgut Neuroendocrine Tumors (Steve Jobs' NET) NETTER-1 Trial: USA & Europe



Then who will benefit and who will not?



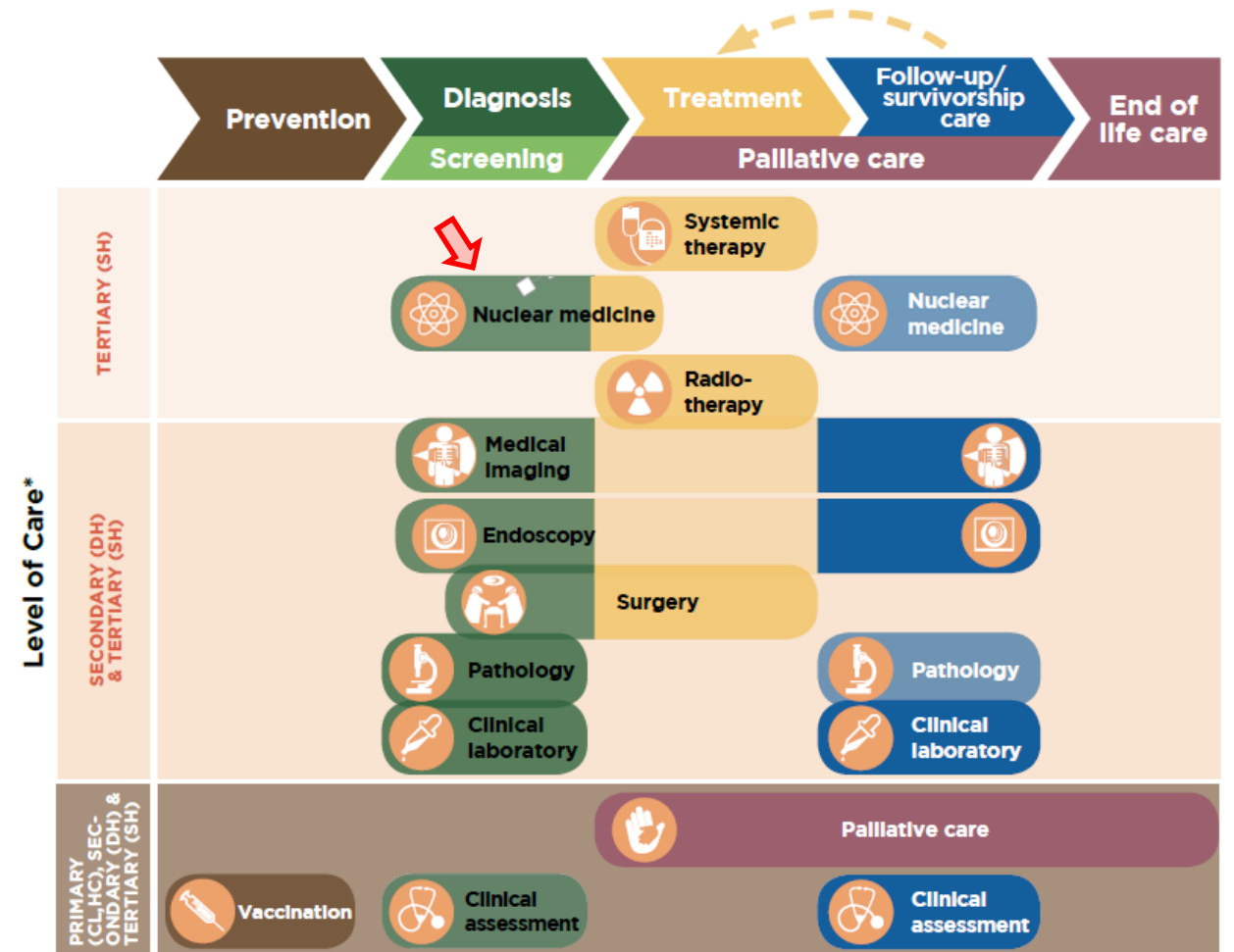
# Global Efforts

MDG 2000-2015 by WHO to SDG 2016-2030

SDG 3 (among 1~17) Health and Wellbeing

Noncommunicable Disease Control:  
Cancer, Heart, Brain, Lung Diseases

	Member States	General Assembly	Anniv.
WFNMB	~ 49		47th
WHO	194 States	147 States	72th
IAEA	171 States	130 States	63th



\* Appropriate level of care will depend on the particular intervention, setting, and available infrastructure and human resources.  
CL Community Level health post    DH District Hospital    HC Health Centre    SH Specialized Hospital

Source: WHO list of priority medical devices for cancer management



## Asi@Connect Project Nuclear Medicine on Trans-Eurasia Information Network (TEIN)



## Asi@Connect Project Nuclear Medicine on Trans-Eurasia Information Network (TEIN)



### TWC2019

**Main Goals**  
Expanding vision beyond the current status quo in theranostics and nuclear medicine and geographic expansion of this breakthrough

The world's leading experts presented their future prospects of expanding theranostics to other diseases than the currently well-established NET and CRPC treatments.

Uniquely, the next-generation leaders from Asia and developing countries joined and discussed their start-up endeavor in theranostics in each country/ institution.

Organized by  
KAST (Korean Academy of Science and Technology)  
Supported by  
EU (TEIN: Trans-Eurasia Information Network)  
KOICA (Korea International Cooperation Agency)



<http://theranostics2019.org/>

## Asi@Connect Project Nuclear Medicine on Trans-Eurasia Information Network (TEIN)



### TEIN Seminar, TWC2019

[Co-chair]

Dr Tan (Connected from Malaysia)  
Prof Lee (TWC2019, Jeju, S. Korea)

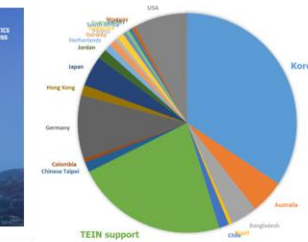
[On-site speakers]

The on-site speakers presented their success, endeavour, wish or even failure/hurdles while implementing theranostics in their countries.

- Lingeswaran Kasilingam (Malaysia)
- Hendra Budiawan (Indonesia)
- Pham Cam Phuong (Vietnam)
- Shamim Momtaz Ferdousi Begum (Bangladesh)
- Noboru Oriuchi (Japan)
- Ting Kun Au Yong (Hong Kong)
- David Ng (Singapore)
- Patricia Bautista (Philippines)

[Participants who connect from their home country]

- Malaysia (13 persons), Indonesia (13 persons),  
Bangladesh (2 persons), Thailand (2 persons), Vietnam, (1 person)



Supported by



The Korean Academy of Science and Technology



The Korean Society of Nuclear Medicine (KSNM)

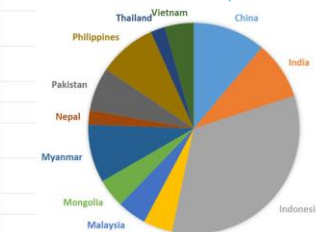


KOICA

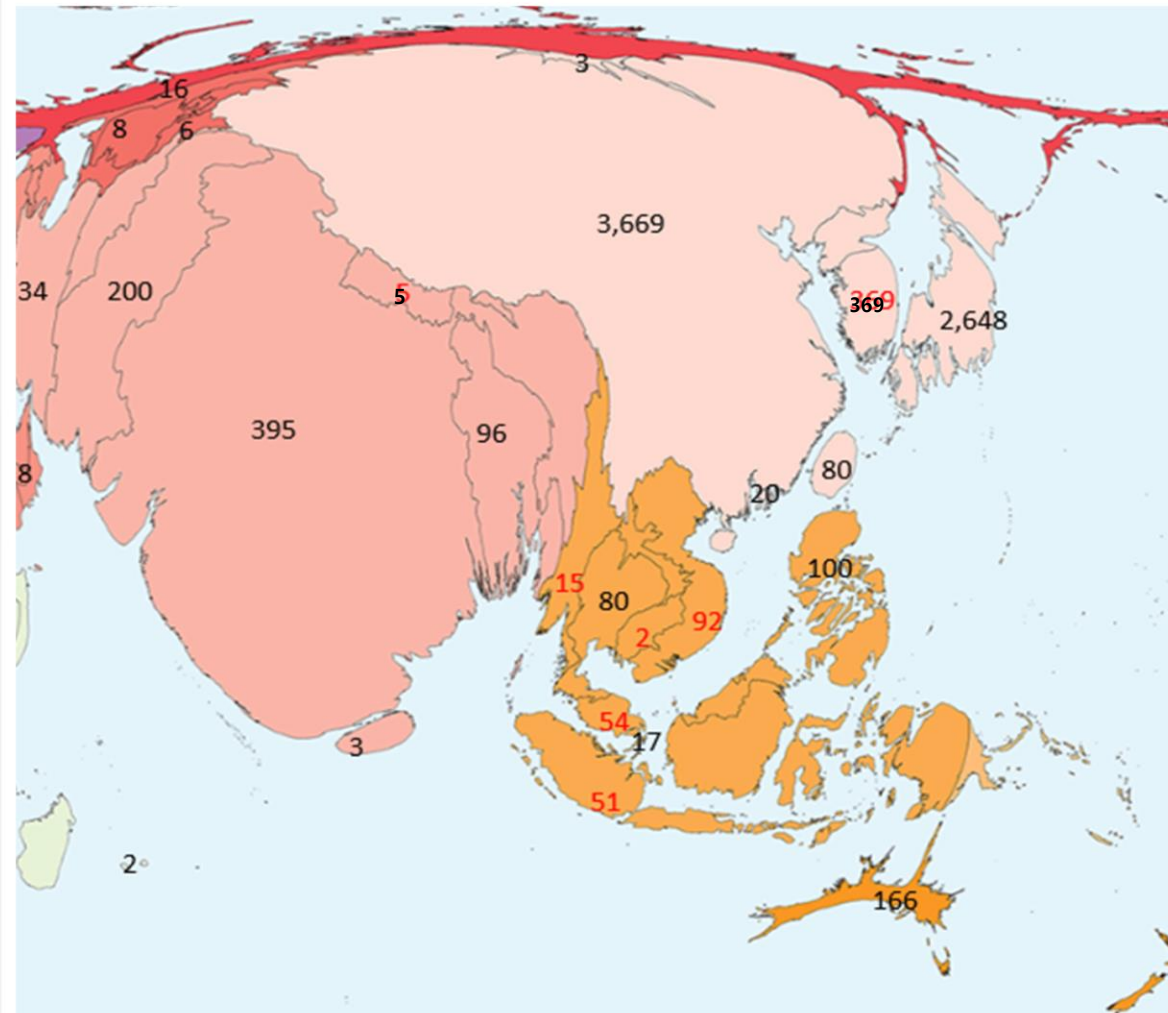
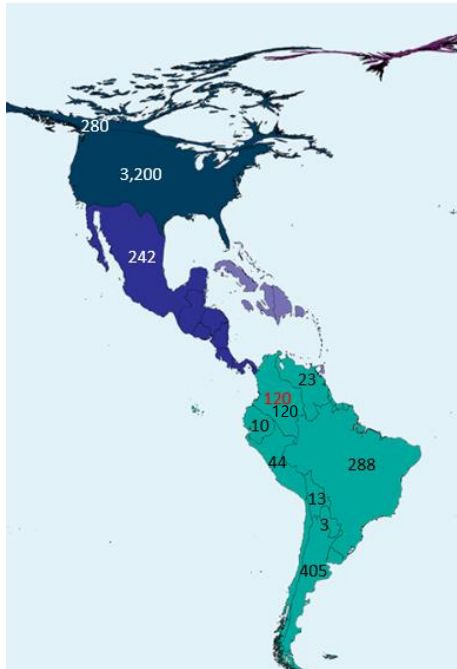


Asi@Connect

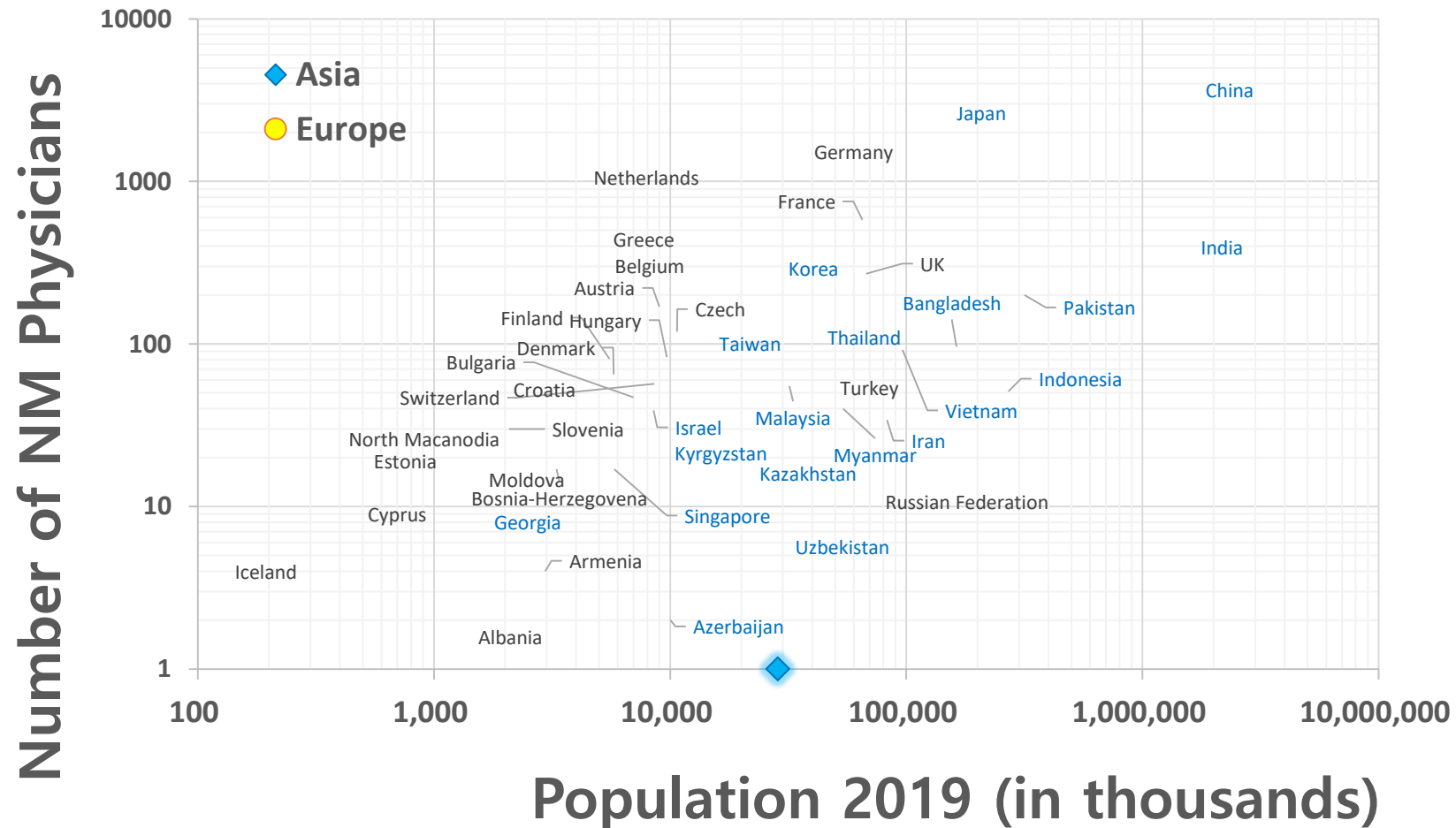
TEIN Luncheon Seminar (12:30-14:00)	TEIN Luncheon Seminar	TEIN In his/her own country
Chairs:	On-Site Speaker: Lingeswaran Kasilingam (Malaysia), Hendra Budiawan (Indonesia), Pham Cam Phuong (Vietnam), Shamim Momtaz Ferdousi Begum (Bangladesh), Dong Soo Lee	
Teik-Hin Tan (in Kuala Lumpur)	Noboru Oriuchi (Japan), Ting Kun Au Yong (Hong Kong), David Ng (Singapore), Hong Zhang (China), Humayun Bashir (Pakistan), Patricia Bautista (Philippines)	
	Participants who Connect via TEIN Video Conferencing from their Home Country:	
	Sadia Sultana (National Institute of Nuclear Medicine & Allied Science, Bangladesh), Karisma Perdani (Hasan Sadikin Hospital Bandung, Indonesia), Wong Tect Huat (Malaysia), Jefferson Pagtsihan, Jamilla Gomez (Philippines), Apichaya Clamon, Tawatthai Chawatanarat (Thailand), Nguyen Thuan Loi (Vietnam)	



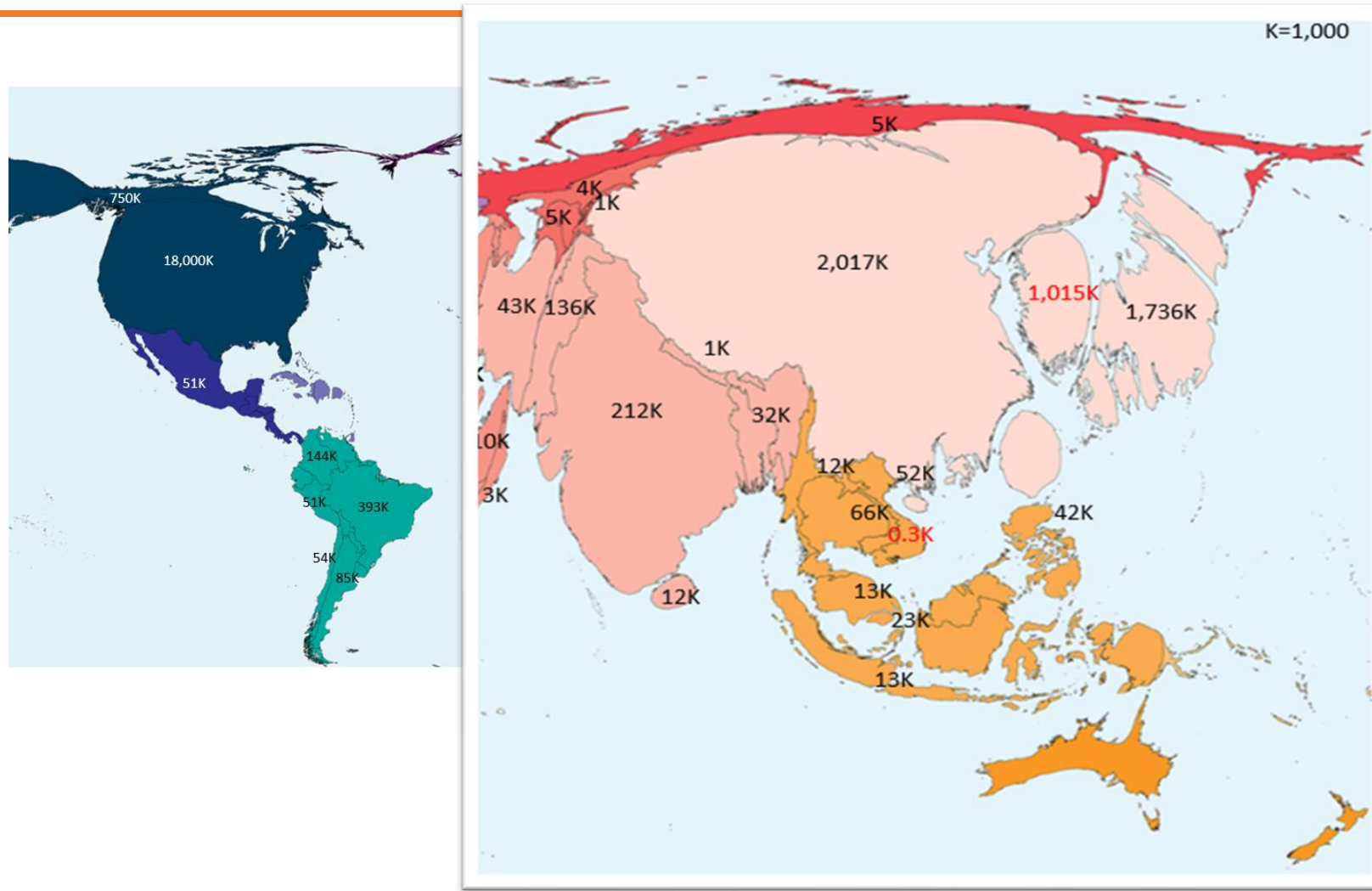
# The Number of Nuclear Medicine Physicians: Asian Countries



# Number of NM Physicians vs. Population 2019

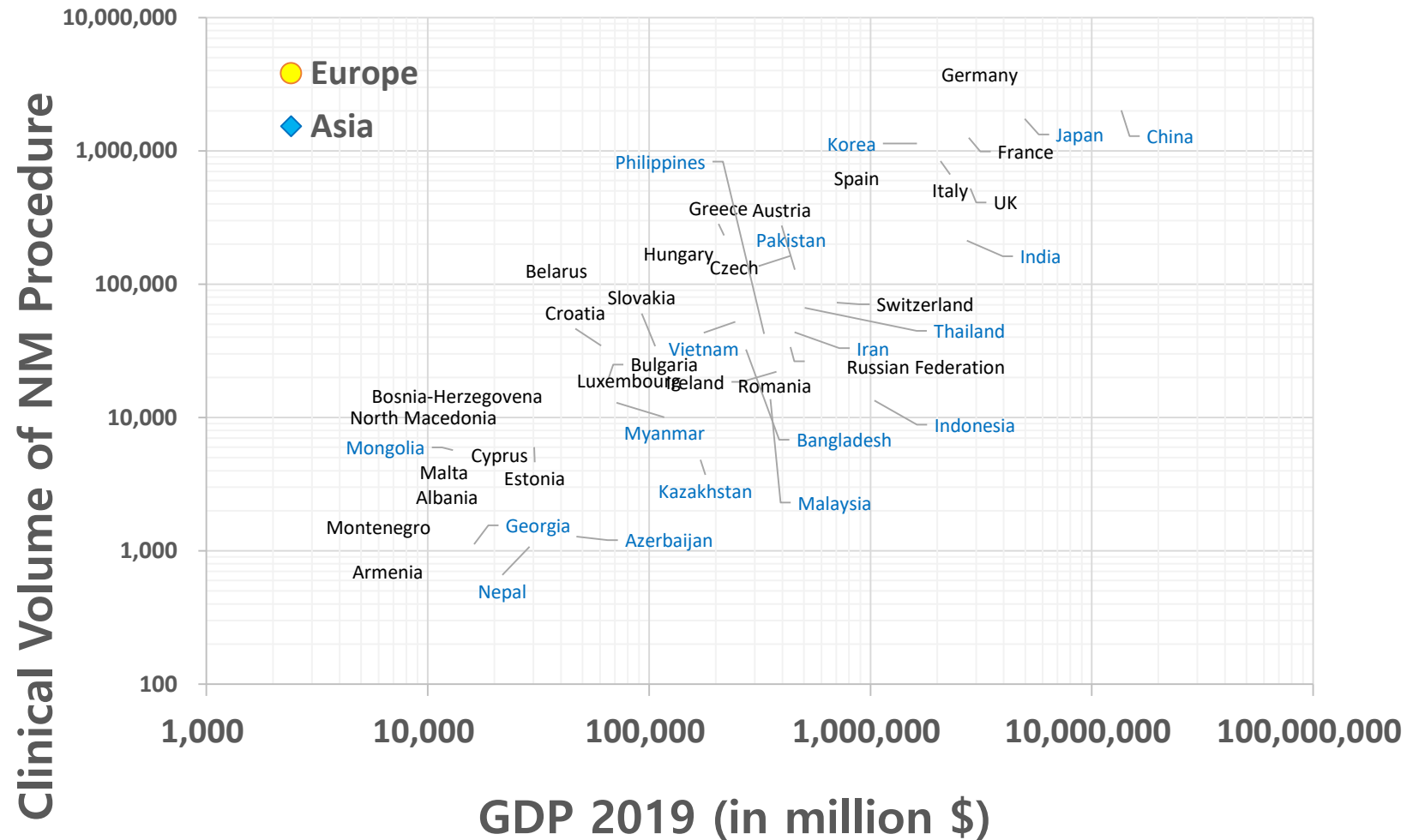


# The Number of Nuclear Medicine Procedures: Asian Countries

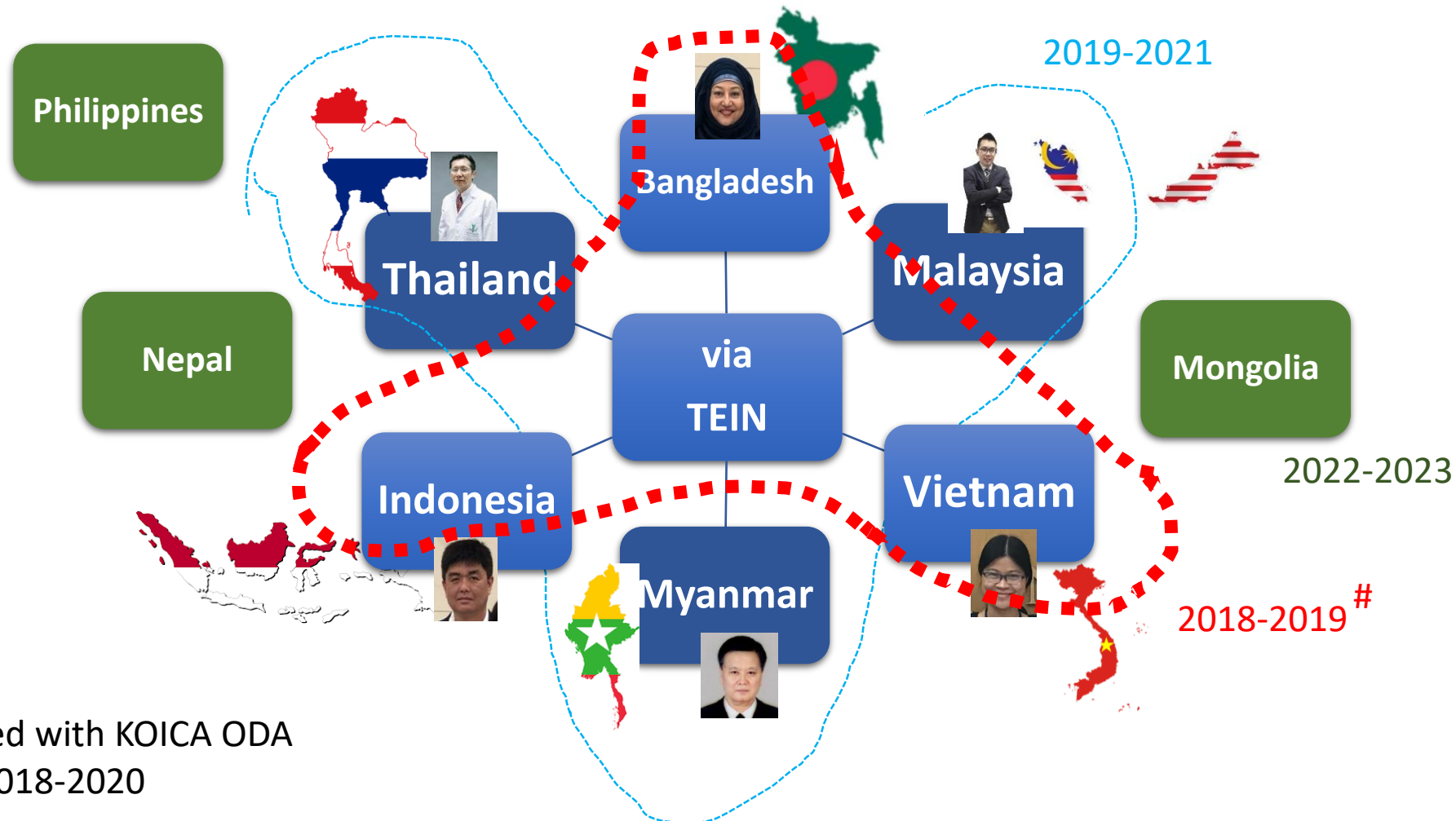




# Clinical Volume of NM Procedures vs. GDP 2019



## NM via Asi@Connect to Asian Countries



# Associated with KOICA ODA  
2018-2020

# Activities

- **Construction of platform (infra) for connections**
  - Help and support from each country's NREN
- **On-site education/training of human resources**
  - Physicians, Scientists (radiochemistry/pharmacy, nuclear medicine physicists) and Nuclear medicine technologists
- **Video-conferencing remote workshop**
  - Domestic (hub-&) spikes
  - Cutting edge contents from Korea (& bilateral/multilateral)
- **Clusters, which soon find new collaboration/scale up**
- **Individual countries' needs: Cutting edge to infra**

