

# Medical deserts: from the global perspective



- Prof James Buchan, Consultant [james\\_buchan@hotmail.com](mailto:james_buchan@hotmail.com)
- (acknowledgements to Dr Tomas Zapata, Regional Advisor, HRH, WHO-EURO ([zapatat@who.int](mailto:zapatat@who.int)))

# Medical deserts: from the global perspective

- Framing typologies= what is the focus?
- Key findings from recent studies.
- Evidence coverage: Critical gaps
- Next steps

# Framing Typologies: Focus and structure

Wilson et al 2009 (distribution)	Bucyx et al 2010 (retention)	WHO 2010/21; (rec and retention)	Viscomi et al 2013 (rec and retention)	OECD 2014 (distribution)	Kousa et al, 2016 (retention/ attrition)	Russell et al 2021 (retention)
Selection	Staffing	Education	Life before medical school	Education	Education	Education
Education	Infrastructure	Regulation	Experiences during medical school	Financial incentives	Financial incentives	Regulation
Coercion	Remuneration	Financial incentives	Experiences during postgraduate training	Regulation	Career development	Financial incentives
Incentives	Workplace organisation	Professional and peer support	Recruitment/retention after completion	Service delivery	Infrastructure and staffing	Professional and peer support
Support	Professional environment		Maintenance: remaining satisfied		Professional work environment	
	Social, family, community				Workload and	

# SEARO study: Which retention policies?

Category	Examples	Implementation				
A. Education	A1 Students from rural backgrounds					
	A2 Health professional schools outside of major cities					
	A3 Clinical rotations in rural areas during studies					
	A4 Curricula that reflect rural health issues					
	A5 Continuous professional development for rural health workers					
B. Regulatory	B1 Enhanced scope of practice					
	B2 Different types of health workers					
	B3 Compulsory service					
	B4 Subsidized education for return of service					
C. Financial incentives	C1 Appropriate financial incentives					
D. Professional and personal support	D1 Better living conditions					
	D2 Safe and supportive working environment					
	D3 Outreach support					
	D4 Career development programmes					
	D5 Professional networks					
	D6 Public recognition measures					

Fully implemented across cadres or country
  Some cadres or parts of the country
  Not implemented

# SEARO study: Which retention policies are used?

- A particular focus on

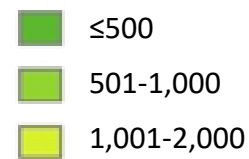
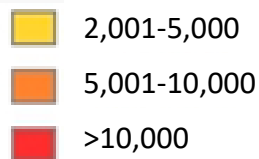
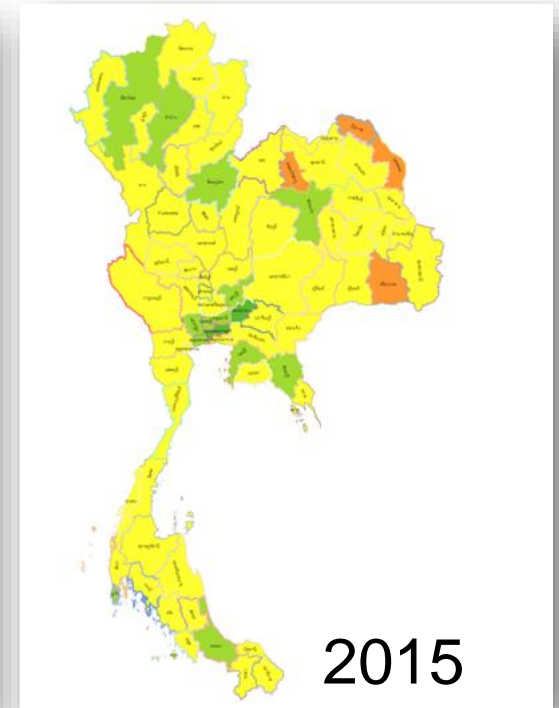
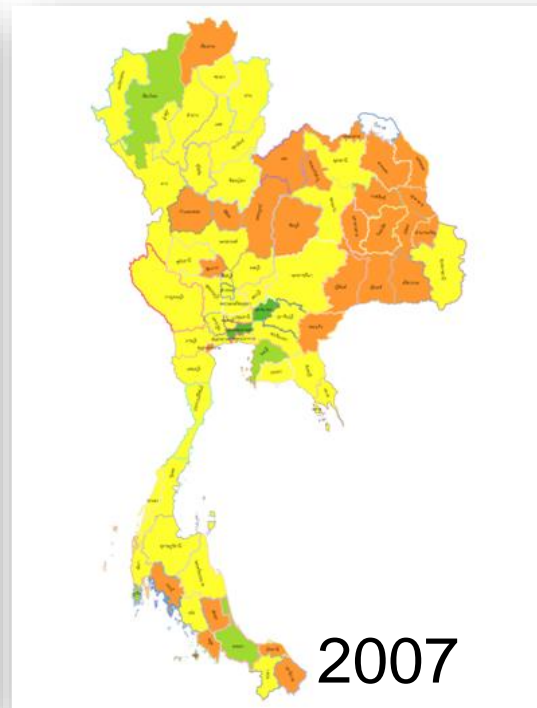
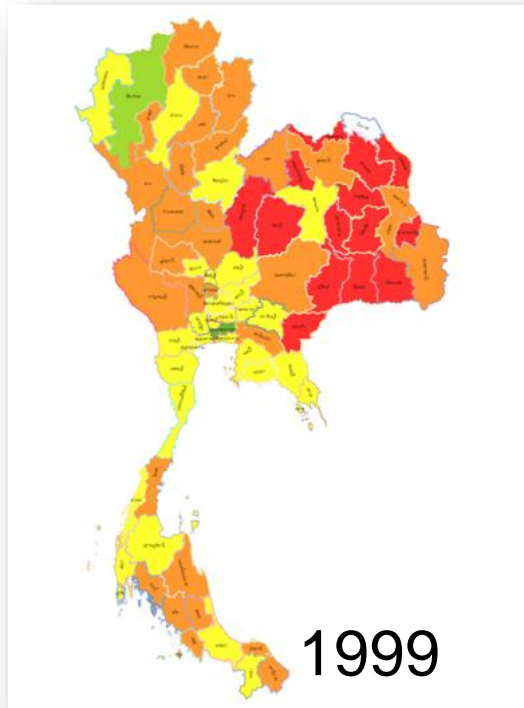
- ✓ educational interventions (other than CPD)
- ✓ some regulatory interventions
  - compulsory service and scholarships
  - return of service
- ✓ financial incentives

- To a lesser extent

- ✓ professional support linked to working condition
- ✓ outreach/ use of telehealth
- ✓ public recognition measures

# Thailand: more doctors and better distribution

1 Doctor per population : **2,359** (2000) → **1,184** (2017)



# Increasing doctors working in specific rural regions: national evidence from Australia.

- This study provides the first national-scale empirical evidence supporting that **‘grow your own’** may be a key workforce capacity building strategy. **It supports underserviced rural areas selecting and training more doctors**, which may be preferable over policies that select from or train doctors in ‘any’ rural location.
- McGrail, M.R., O’Sullivan, B.G. Increasing doctors working in specific rural regions through selection from and training in the same region: national evidence from Australia. Human Resources for Health 19, 132 (2021). <https://doi.org/10.1186/s12960-021-00678-w>

# Global: Interventions for retention in rural and remote areas

- Systematic review=2649 identified articles: **Educational interventions** such as preferential selection of rural students and distributed training in rural areas are associated with increased rural retention of health professionals. Strongly coercive interventions are associated with comparatively lower rural retention than interventions that involve less coercion.
- Policy makers seeking rural retention in the medium and longer term would be prudent to **strengthen rural training pathways and limit the use of strongly coercive interventions.**
- Russell, D., Mathew, S., Fitts, M. et al. Interventions for health workforce retention in rural and remote areas: a systematic review. Human Resources for Health 19, 103 (2021).



# Key points from the evidence

- “Bundles” of co-ordinated policy interventions rather than single shot
- A moving target: Be clear about the context- Circumstances and priorities vary- and change over time
- The need to consider multiple stakeholder engagement when identifying and developing relevant interventions
- Education!!!!- Recruit/ train local = stay local
- Its not just a workforce “problem” – service solutions [ redesign/ relocate services, use of tele-health, IT, mobile teams etc]

# Evidence coverage: Critical gaps

- Coverage by occupation- OK for doctors; little on nurses/AHP; virtually nothing on others
- Coverage by country/ region- variable on OECD countries [Aus, Can]; little on low income countries
- Coverage by intervention- more on education, some on financial incentives, little on other
- Coverage by methods- mainly descriptive/ surveys of motivation/ need; some use of turnover/ retention/ stability measures; little on cost/ effect/impact of intervention[s]; little on community involvement
- Abandoned/ ineffective policies: virtually no examples
- Topography/geography/population density/access to comms and tech underexamined

# Conclusions: Next steps

- Evaluation is generally weak, and requires better data, systems and knowledge sharing
- Education interventions are most commonly reported, but more attention needs to be given to other interventions
- The sustainability and alignment of funding sources needs to be considered. Sustainability=workforce stability
- Health service design and technology are part of the solution
- Move beyond reviews=case studies, action interventions, new roles/team mix/tech/community engagement



# Key reference

WHO South East Asia Region (2020). Improving retention of health workers in rural and remote areas: Case studies from WHO South-East Asia Region