

Centre for Research Excellence  
in Medical Workforce Dynamics

Medicine in Australia: Balancing Employment and Life (MABEL)

# Using MABEL data to overcome the rural medical workforce shortage problem

**John Humphreys & Matthew McGrail**

*Centre of Research Excellence in Rural and Remote Primary Health Care  
Monash University School of Rural Health*

**MABEL Research Forum Melbourne 10 April, 2014**



FACULTY OF  
BUSINESS &  
ECONOMICS



**MELBOURNE INSTITUTE**<sup>®</sup>  
of Applied Economic and Social Research

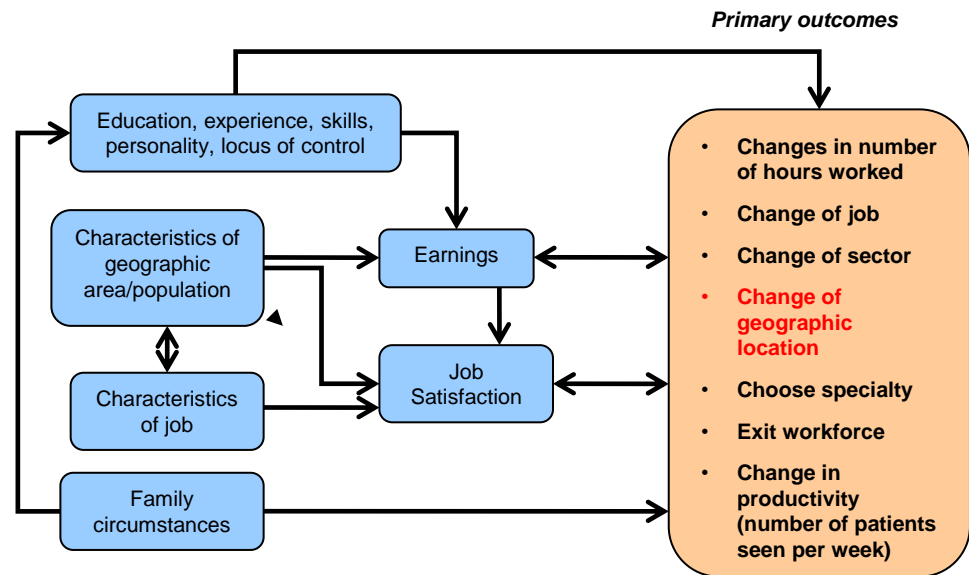


**MONASH University**  
Medicine, Nursing and Health Sciences

# MABEL

## Medicine in Australia: Balancing Employment and Life

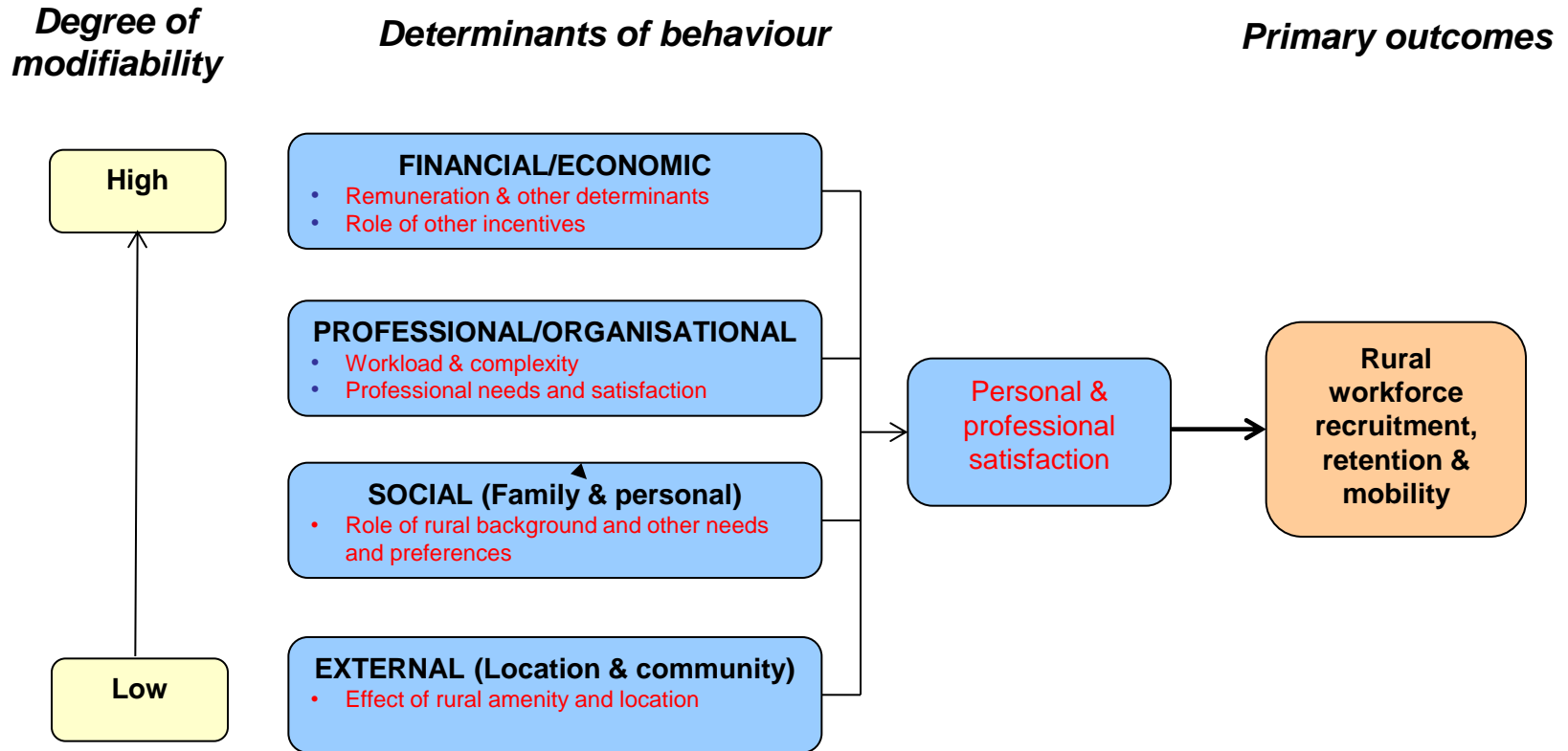
- **AIM:** “to examine how the determinants of medical workforce decisions impact on workforce distribution and the working patterns of doctors”
- This talk will exemplify how MABEL evidence is helping to address the **rural medical workforce problem**



# The rural health problem

- **Rural health status** and **access** to services worse than in cities
- **Workforce** is the key to accessible health care
- Persistent workforce **shortage** & worsening **maldistribution**
- Increasing supply without addressing **recruitment and retention** issues will not solve this problem
- Recruitment and retention is **more difficult** because:
  - rural locations vary in attractiveness
  - general practice is not attractive
  - rural and remote practice is more complex
  - doctors work longer hours & more on-call/ after-hours

# Conceptualising the rural workforce problem



# Workforce recruitment

## How important is income vis-à-vis other determinants?

- **Focus:** What incentives assist relocation to rural areas?
- **Method:** Discrete choice experiment to ascertain income shift required for doctors to move to alternative rural locations
- **Main findings:**
  - many GPs opt for '*status quo*';
  - **considerable** financial incentives required to relocate to '*areas of workforce shortage*'

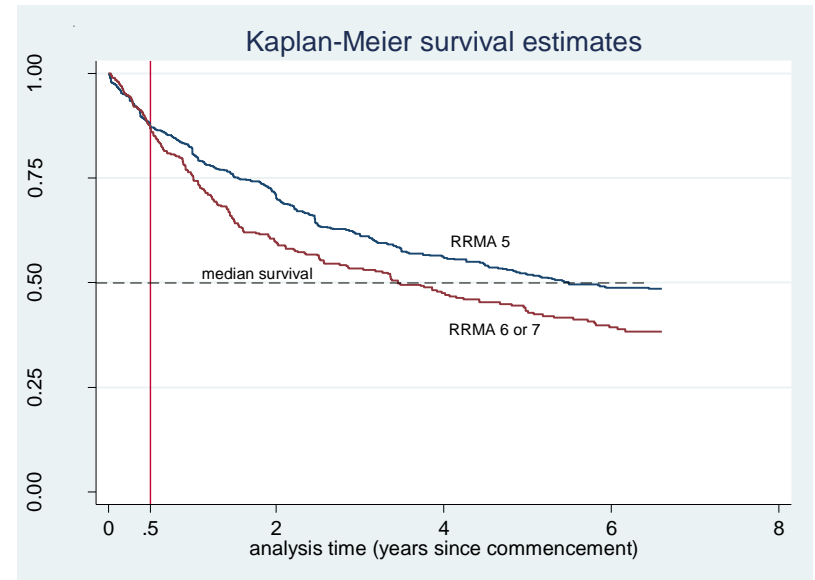


**Reference:** Scott A, Witt J, Humphreys JS, Joyce C, Kalb G, Jeon S and McGrail M, 2013: Getting doctors into the bush: General Practitioners' preferences for rural location, *Social Science and Medicine*, 96, 33-44.

# Workforce retention

## Key factors contributing to rural workforce retention

- **Focus:** What factors are associated with rural and remote medical workforce retention?
- **Method:** Survival curve analysis and logistic regression
- **Findings:** A range of financial, professional and geographic factors contribute to the rural GP retention, (especially primary income source, registrar status, hospital work and restrictions on practice location).

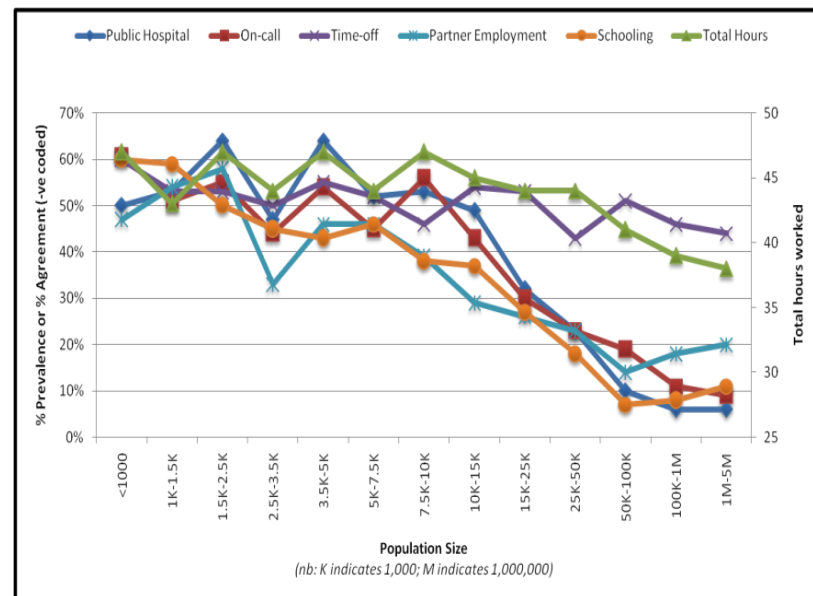


**Reference:** Russell D, McGrail M, Humphreys JS & Wakerman J., 2012: What factors contribute most to the retention of general practitioners in rural and remote areas? *Australian Journal of Primary Health*, 18: 289-294.

# Workforce retention

## Who should get what incentives?

- **Focus:** How should incentives be allocated?
- **Method:** Differentiation of geographic locales using sentinel professional and personal indicators
- **Main finding:** Community size combined with remoteness is a **fairer measure** for allocation than existing ASGC scheme



**Reference:** Humphreys JS, McGrail M, Joyce C, Scott A & Kalb G, 2012: Who should receive recruitment and retention incentives? Improved targeting of rural doctors using medical workforce data, *Australian Journal of Rural Health*, 20, 3-10.

# Workforce recruitment & retention

## What is the role of rural amenity?

- **Focus:** How does rural amenity contribute to rural medical workforce shortages?
- **Method:** Multivariate regression using key amenity indicators with Districts of Workforce Shortage over ten years.
- **Findings:** Study found only a weak association with a selection of place characteristics descriptive of their isolation, climate, and rural amenity.



**Reference:** McGrail M, Humphreys JS, Joyce C, Scott A & Kalb G, 2011: Rural amenity and rural medical workforce shortage: Is there a relationship? *Geographical Research*, 49(2):192-202.

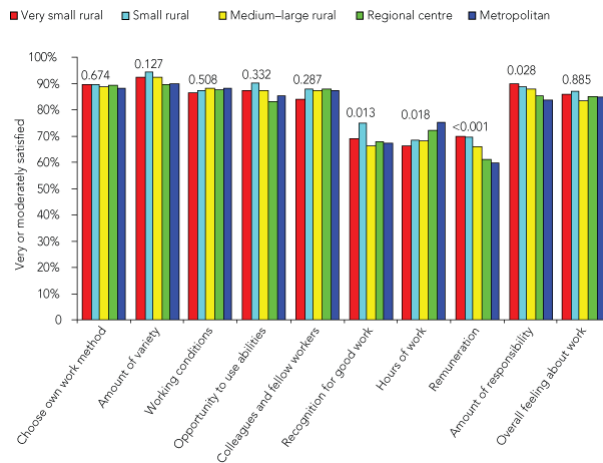


# Workforce satisfaction

## Myth-busting: Are rural GPs less satisfied?

### Workload

**Main finding:** High level of professional satisfaction across all doctor groups despite perceptions.



### References:

- Joyce CM, Schurer S, Scott A, Humphreys JS & Kalb G, 2011: Australian doctors' satisfaction with their work? Results from the MABEL longitudinal survey of doctors, *Medical Journal of Australia*, 194:1, 30-33
- McGrail M, Humphreys JS, Joyce C & Scott A, 2012: International medical graduates mandated to practice in rural Australia are highly unsatisfied: results from a national survey of doctors, *Health Policy*, 108: 133-139

### IMGs

**Finding:** IMGs exhibit lower professional and non-professional satisfaction over and above community size.

#### Key factors associated with high job satisfaction

##### Job characteristics

- Realistic patient expectations
- Good professional support networks
- Being able to take time off

##### Geographical factors

- Friends and family in current work location
- Working outside New South Wales

##### Doctor characteristics

- Being younger or close to retirement
- Good self-reported health
- High household income

# Ongoing MABEL rural workforce research

Currently working on:

## 1. Rural GPs' preferences for policy incentives

- **Focus:** What types of incentive policies do rural GPs' prefer?
- **Method:** Discrete choice experiment of key factors associated with recruitment and retention & mixed logit regression
- **Main finding:** Locum relief is the most effective incentive to increase length of stay, followed by the retention payments, rural skills loading and family isolation payments.

## 2. Mobility patterns of GPs within rural Australia

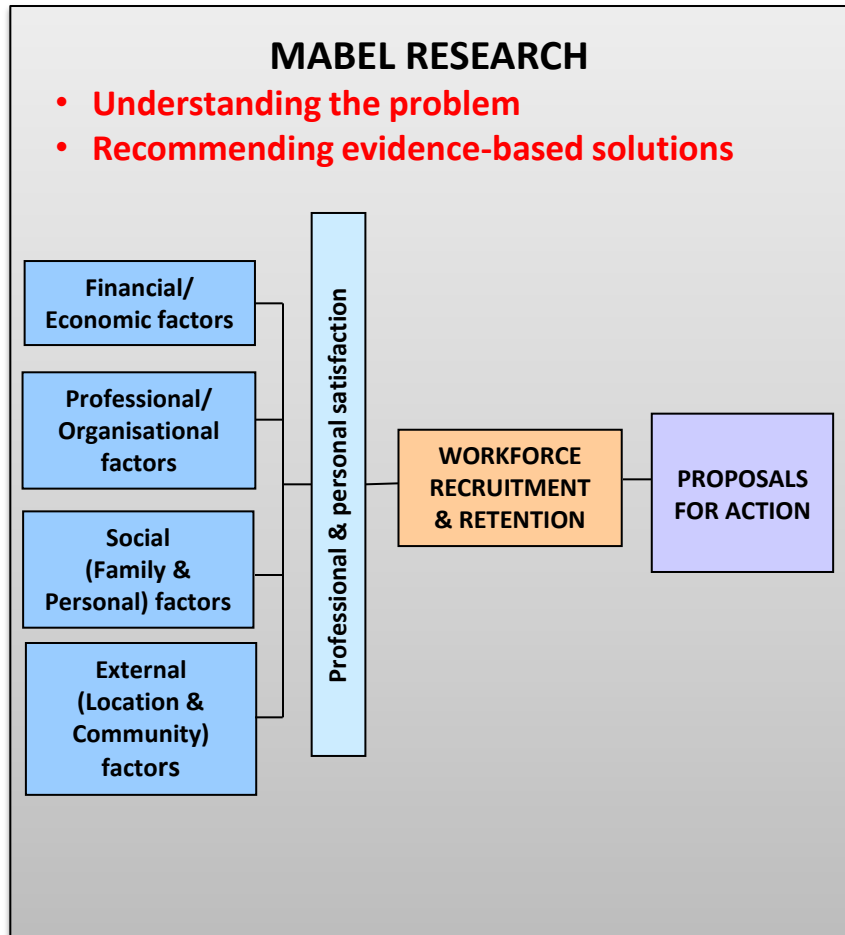
- **Focus:** Who moves, where do they move, how frequently?
- **Method:** Analysis of transition over five years using modified 'Monash model'
- **Main finding:** Work still in progress

# So how has MABEL data helped?

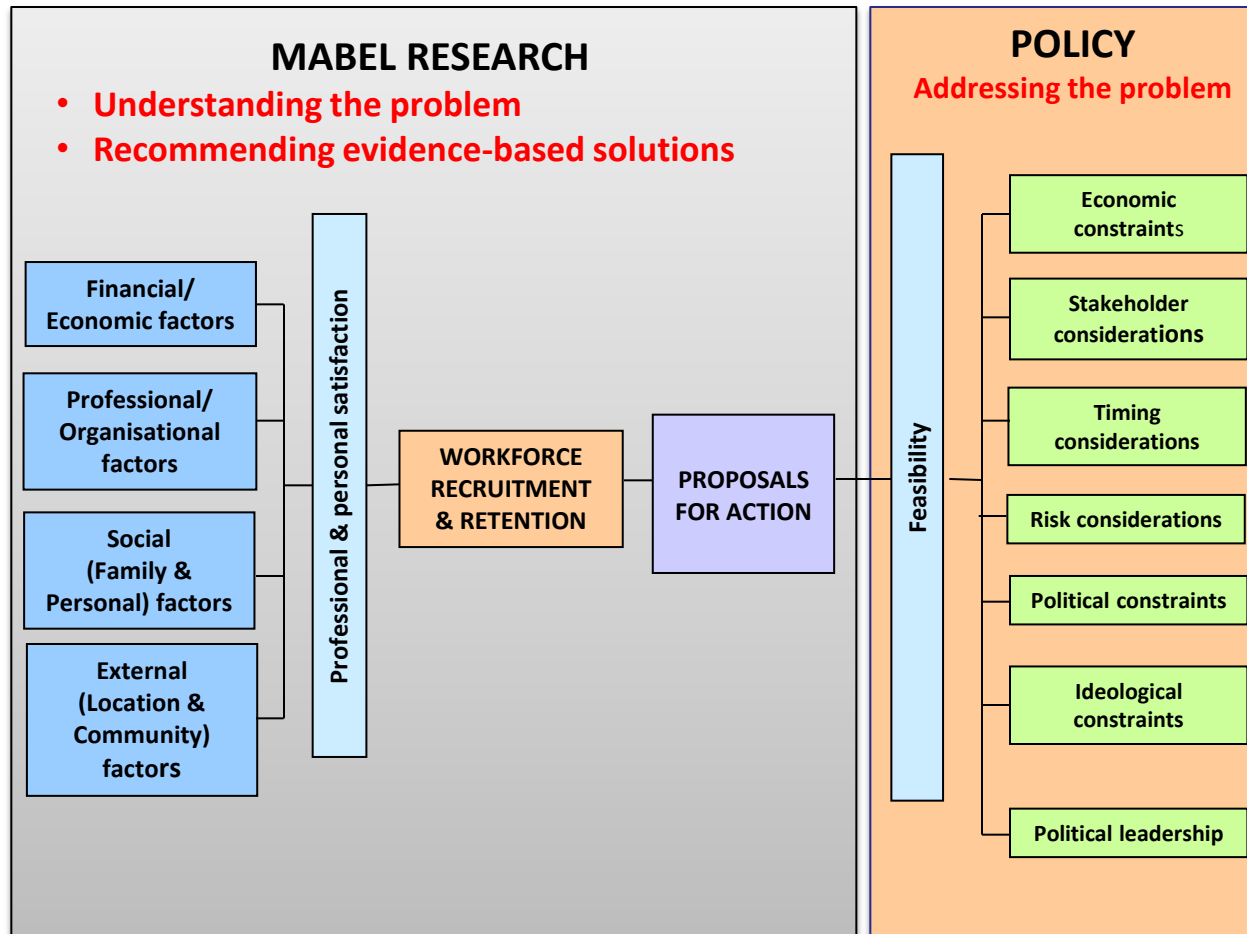
## Better understanding

- Most comprehensive data available to examine the **role** and **inter-relationship** of key variables in explaining rural medical workforce recruitment and retention.
- Enables research analysis to move beyond bivariate associations to model the **complexity** of the issues.
- Better understanding of **how** 'rurality' impacts upon
  - what doctors do,
  - the circumstances in which they do it, and
  - and their decision-making as a consequence of perceived and actual professional and personal satisfaction,

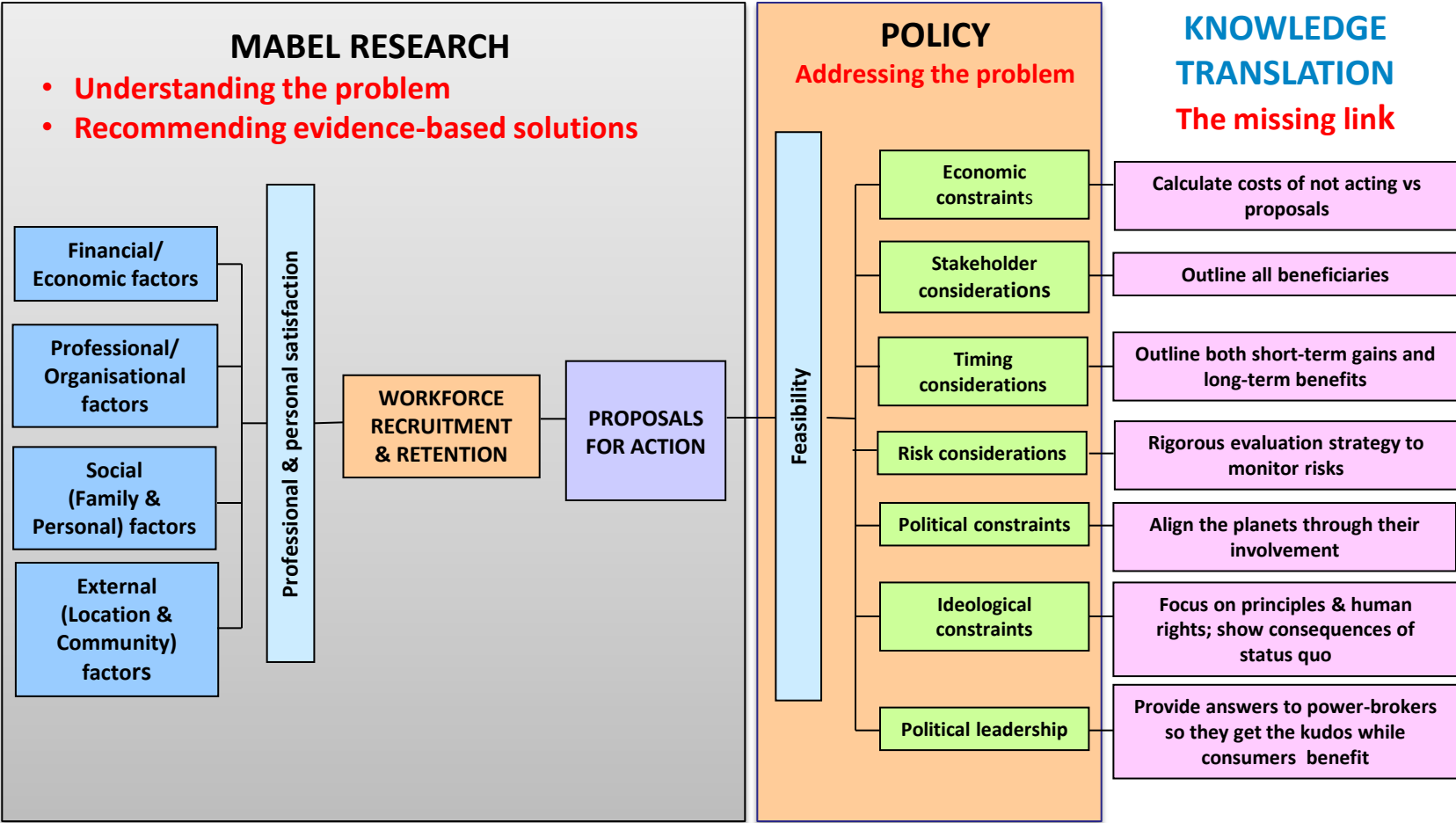
# Impact of MABEL research on policy



# Impact of MABEL research on policy



# Impact of MABEL research on policy



# Impact of MABEL research on policy

---

Always difficult to *attribute* policy change to research evidence but MABEL is *contributing* to workforce policy

# Impact of MABEL research on policy

Always difficult to ***attribute*** policy change to research evidence but MABEL is ***contributing*** to workforce policy

- “The committee was impressed with the comprehensive nature of the model ... and ... is supportive of the methodology and data utilised.” (**Australian Government Senate Enquiry, 2012**)
- “The enhancement ...is a valuable one ... based on reasonable evidence derived from data generated through the MABEL Study ... A modification to the “model” is recommended as the approach most likely to provide positive enhancements to current systems. (**Mason Review, 2012**)
- “The model provides a sound and practical basis on which to move forward, and the RDAA has joined other stakeholders – including United General practice Australia – in supporting this model in-principle.” (**RDAA, 2013**)



# So how has MABEL data helped?

## Helps ensure effective rural workforce policies

- Identifies the **role** of incentives and **which ones may work best** in different locations.
- Presents a better basis for the **equitable distribution** of incentives
- Enables **monitoring** of the effect of rural medical workforce policies on workforce supply and distribution in rural and remote areas

**MABEL**

---

**An indispensable resource for  
rural workforce planning**

**THANK YOU**