



# **Pharmacy Education:** *Global trends and wider perspectives*

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# Pharmacy Workforce Trends – Equity?

Berne and Stiefel framework (1984)

Applied to the “equity” challenge asks four guiding questions:

for whom, what, how and how much.

Measuring equity



## Data trends...

“Course Experience Questionnaire” (CEQ36) (Ramsden et al)

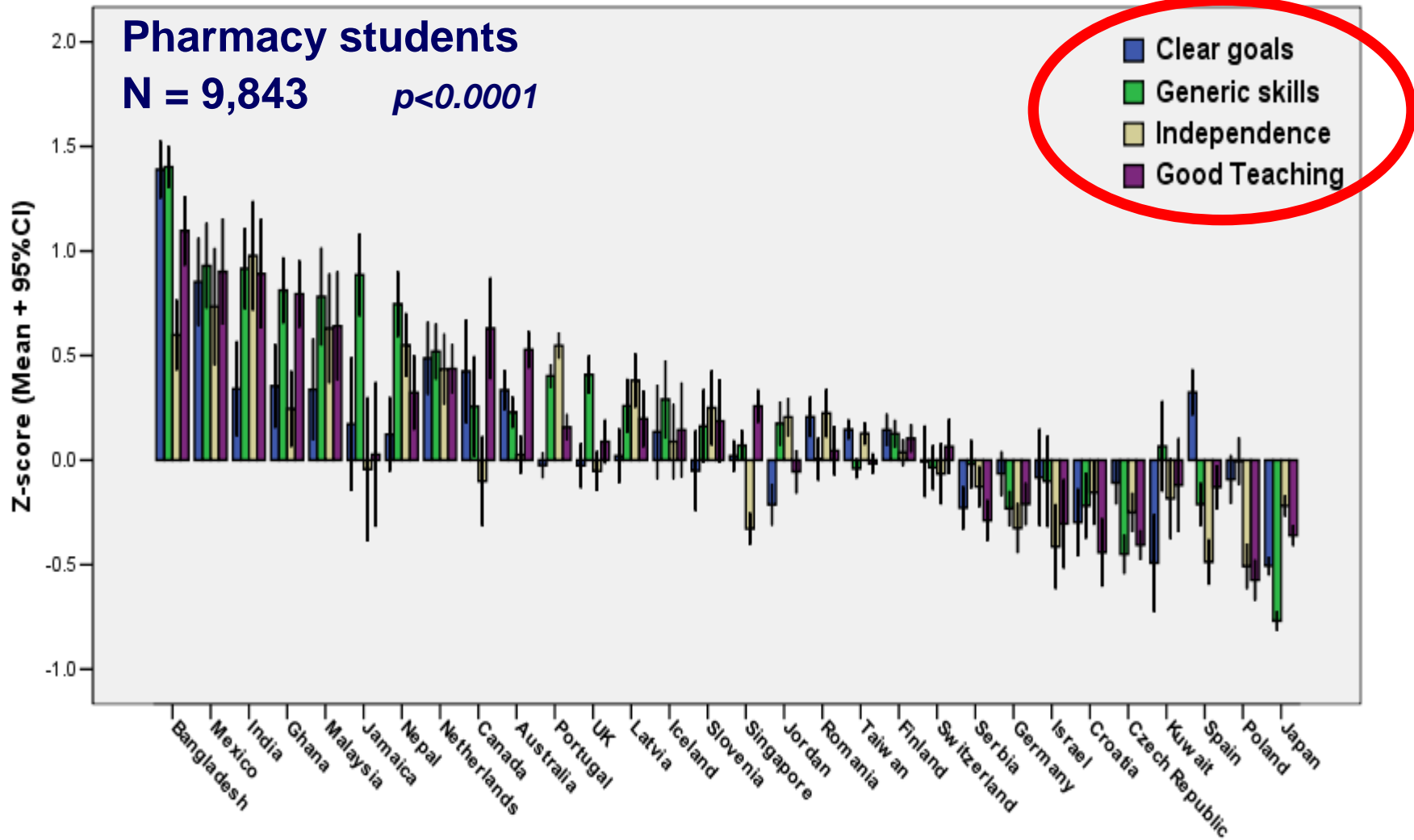
Measures the ‘Learning Experience’, from student perspective

Clusters into 6 domains:

- Good Teaching
- Clear Goals
- Appropriate Workload
- Independence in learning
- Assessment
- Generic Skills

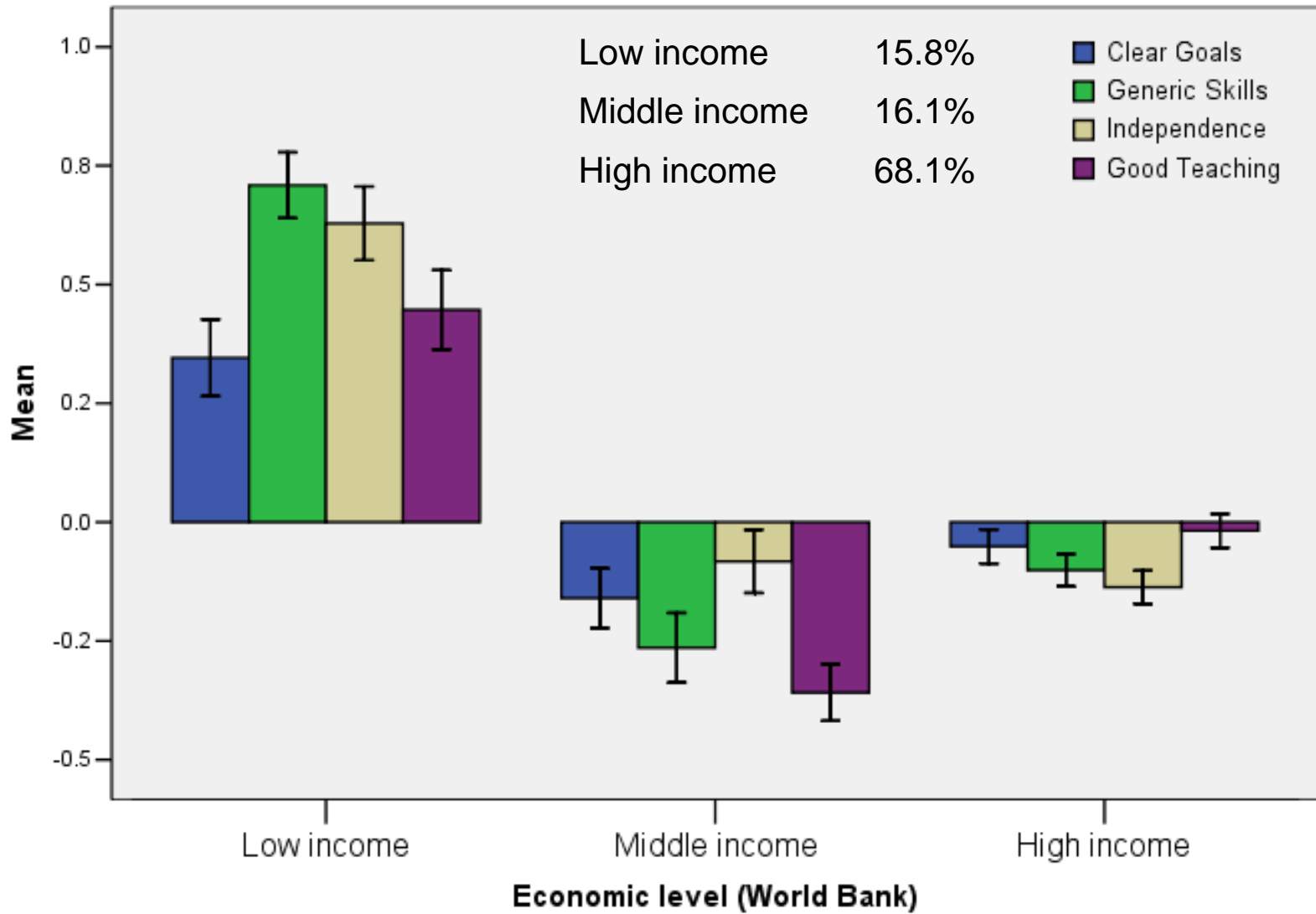


# The Learning Experience...





# Income (sample %)





Motivation:

Pharmacy studies

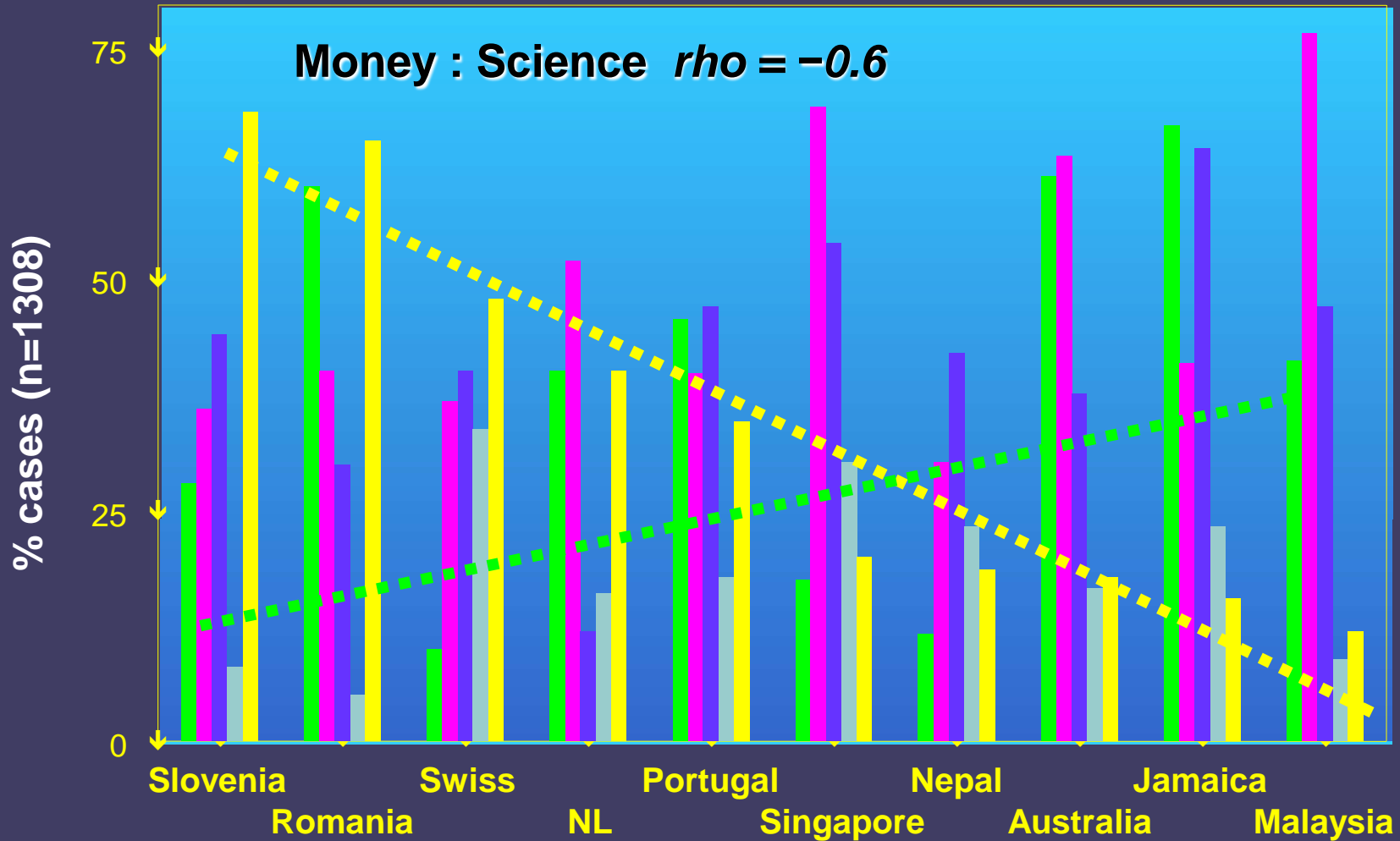
Money

Job Issues

Altruism

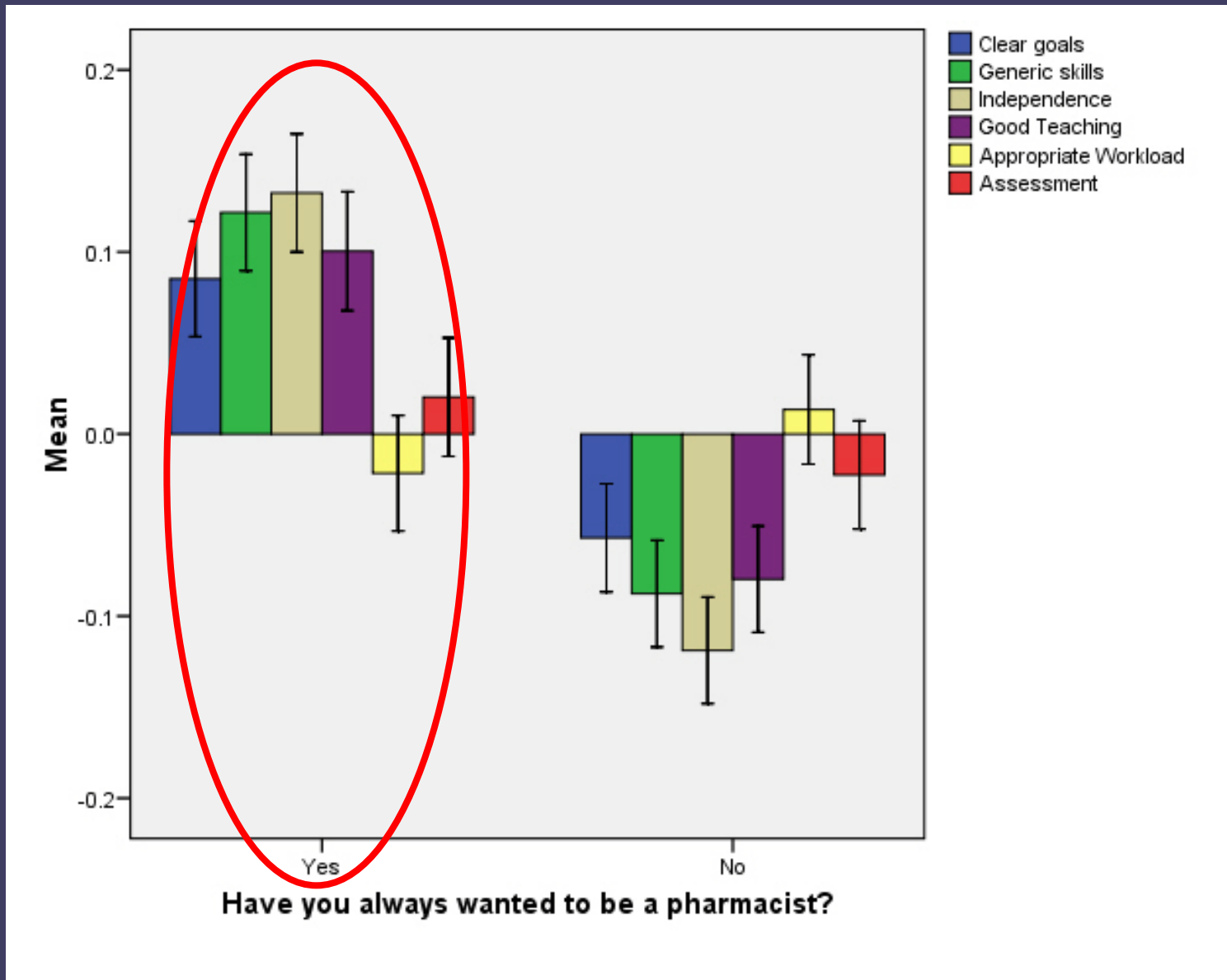
Health interest

Science





# Motivation







# Pharmacy Workforce Trends

## Shortages

- *insufficient capacity to train workforce, poor retention*

## Workforce distribution imbalance

- *rural/urban, public/private*

## Practice role development

- *need for education to be relevant to local needs*

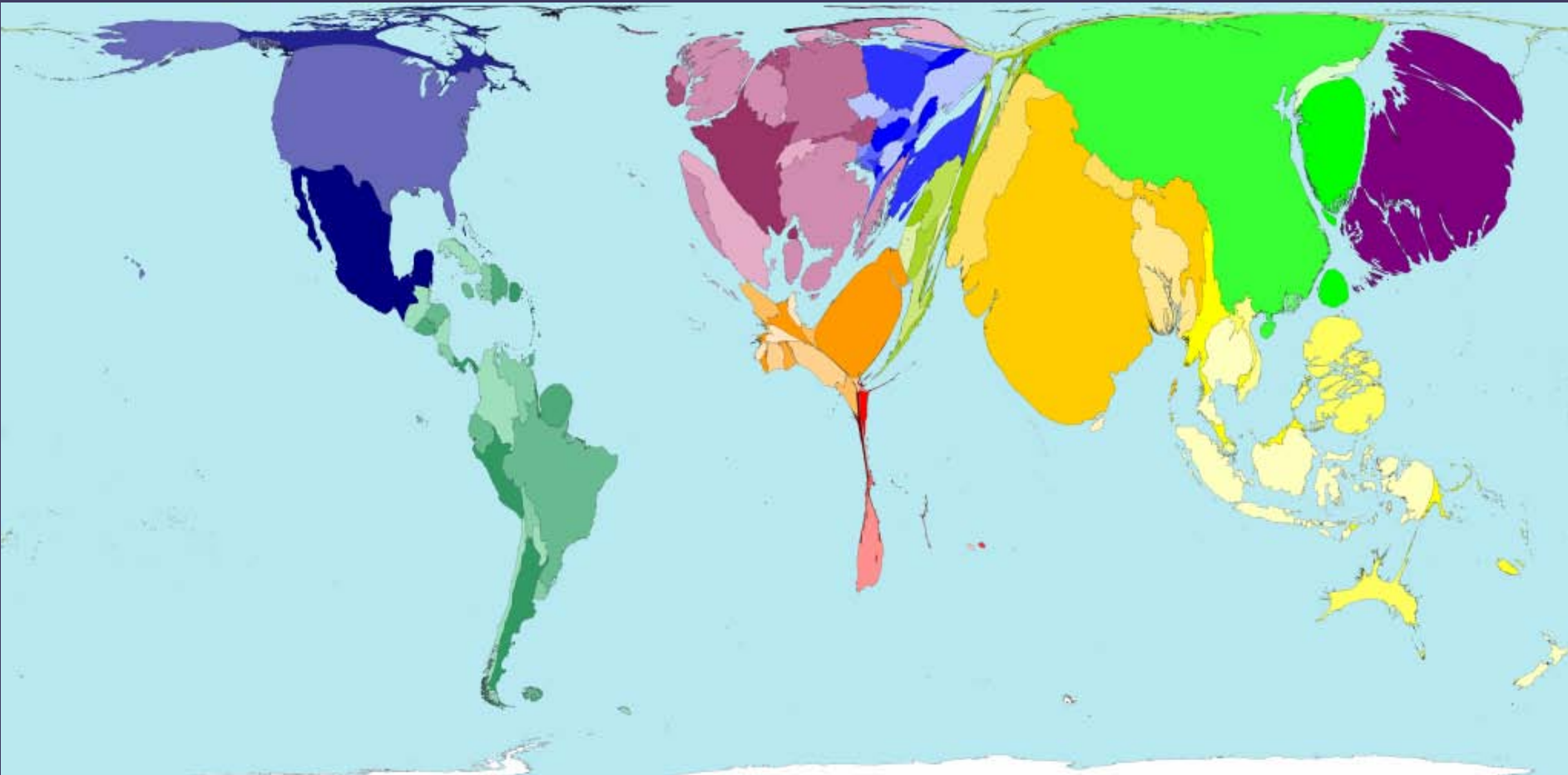
## Increasing migration (within and between countries)

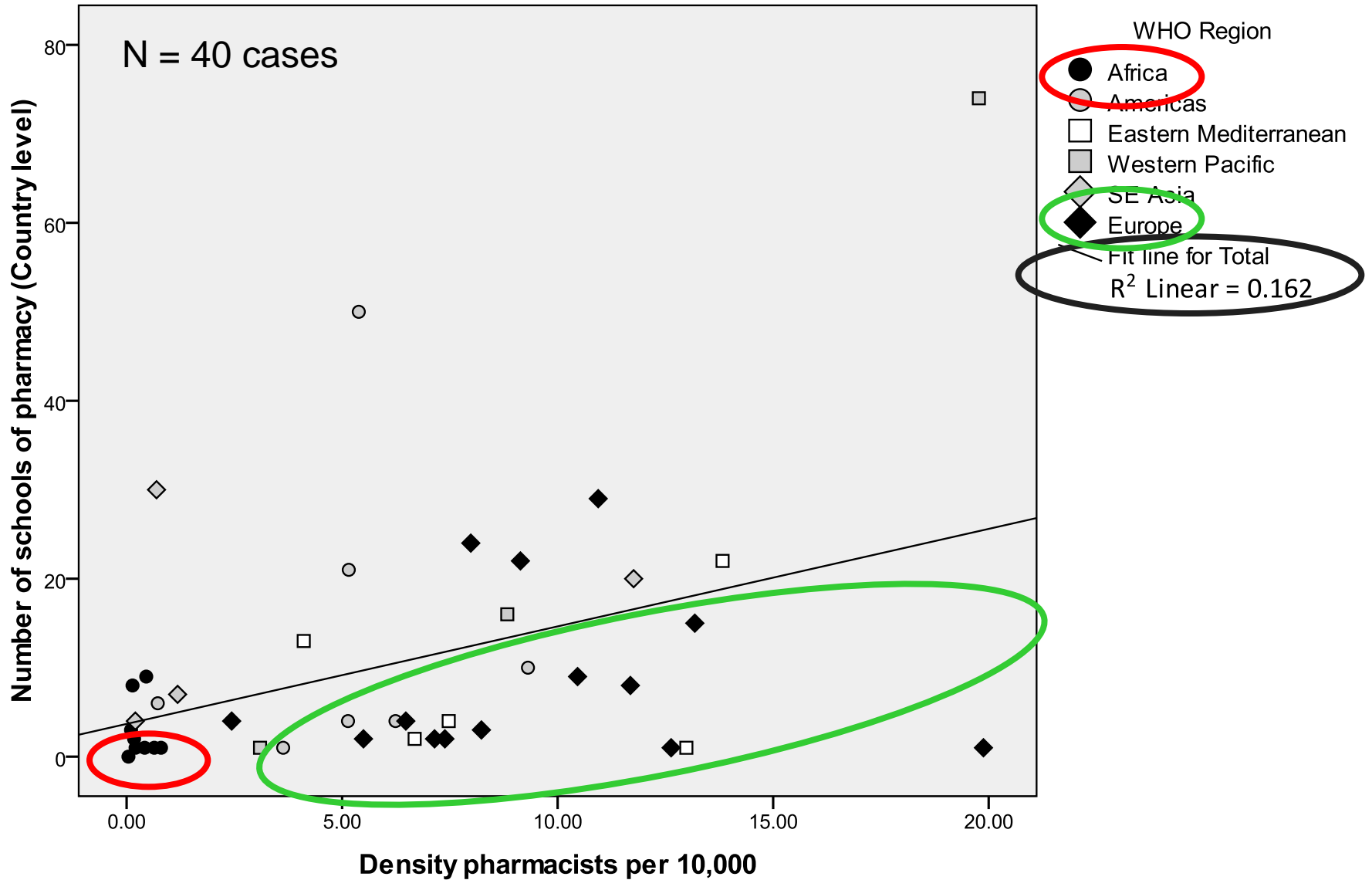
## Poor utilisation of skills

(2006 FIP Global Pharmacy Workforce and Migration Report [www.fip.org/hr](http://www.fip.org/hr))



# Practitioner workforce – *per capita*







## Professional migration

791 final year pharmacy student respondents

9 countries:

Australia, Croatia, Singapore, Portugal, Zimbabwe, Bangladesh,  
Nepal, Egypt, Slovenia

Mean age: 22 years

61% respondents female

Top destination countries: UK, USA, Australia



## Intention to migrate

52% all respondents plan to migrate

60% plan long-term migration (> 2 years)

80% of international students plan to migrate

80% plan long-term migration

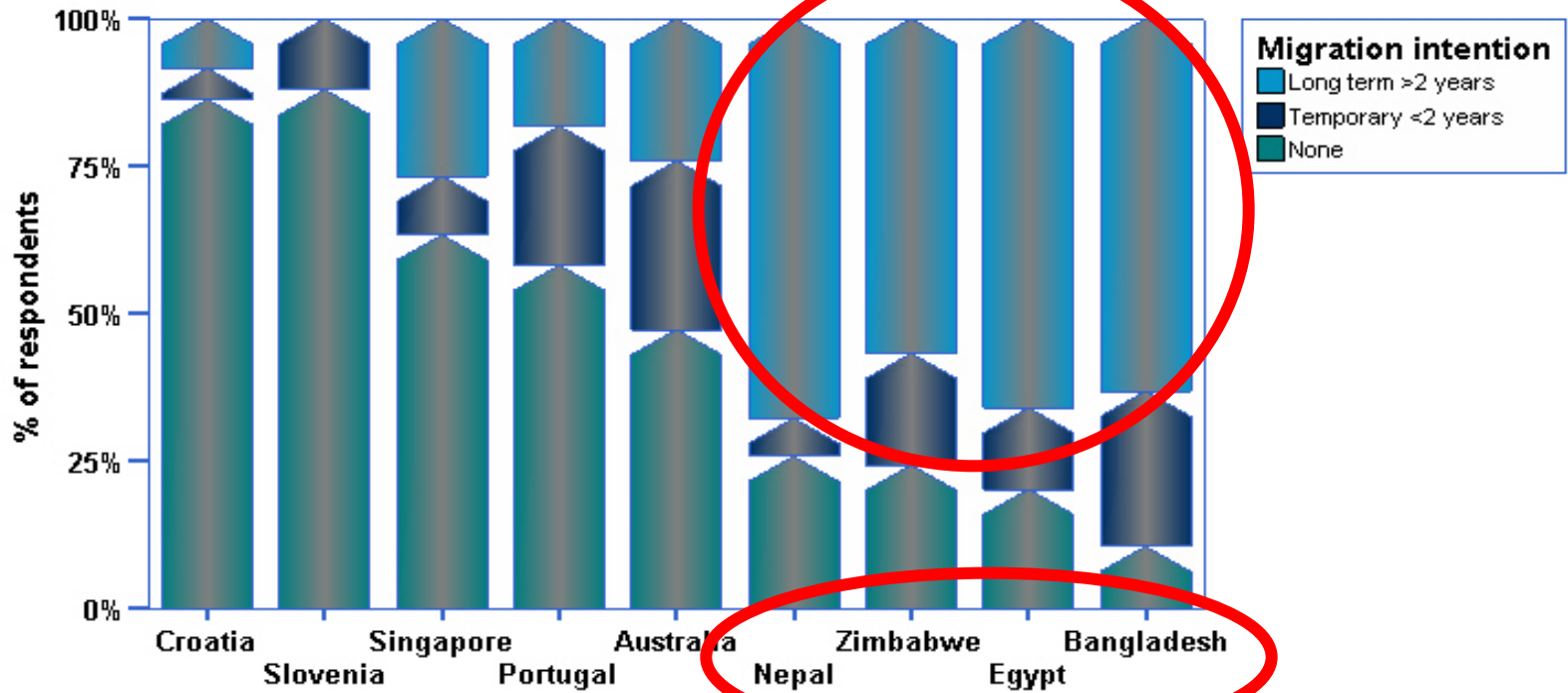
Implications for cross-border education?

Students with past experience abroad are more likely to migrate  
(79% vs 49%,  $p < 0.001$ ).

Variation in intention between and within countries

13% (Croatia) – 90% (Bangladesh)

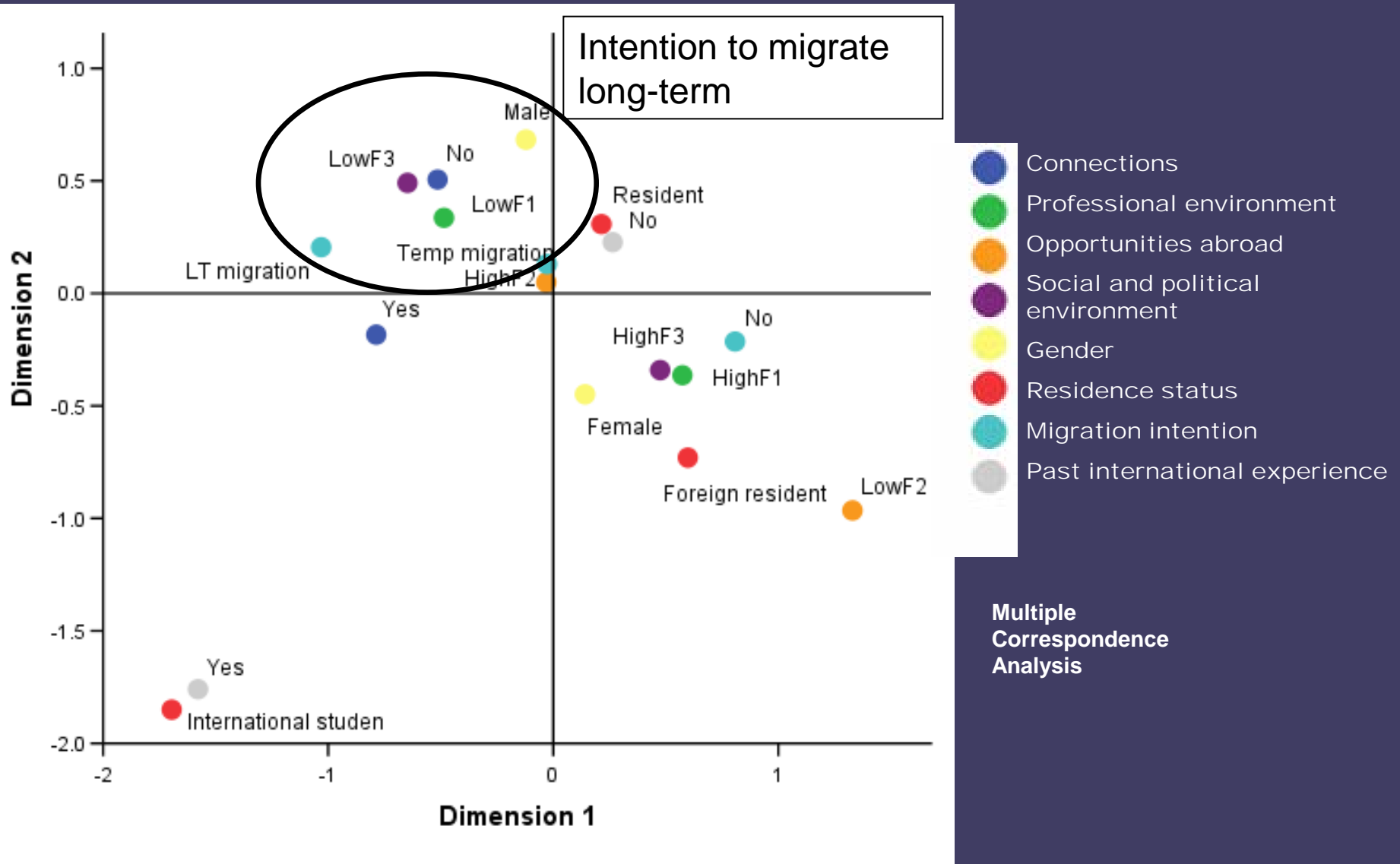
Influence of education on attitudes & intention?



Proportion of respondents intending to migrate within the next five years



# Factors and the intention to migrate





# Drivers of Migration

## Factor 1:

Professional practice environment and status in own country  
(10 items,  $\alpha = 0.8$ )

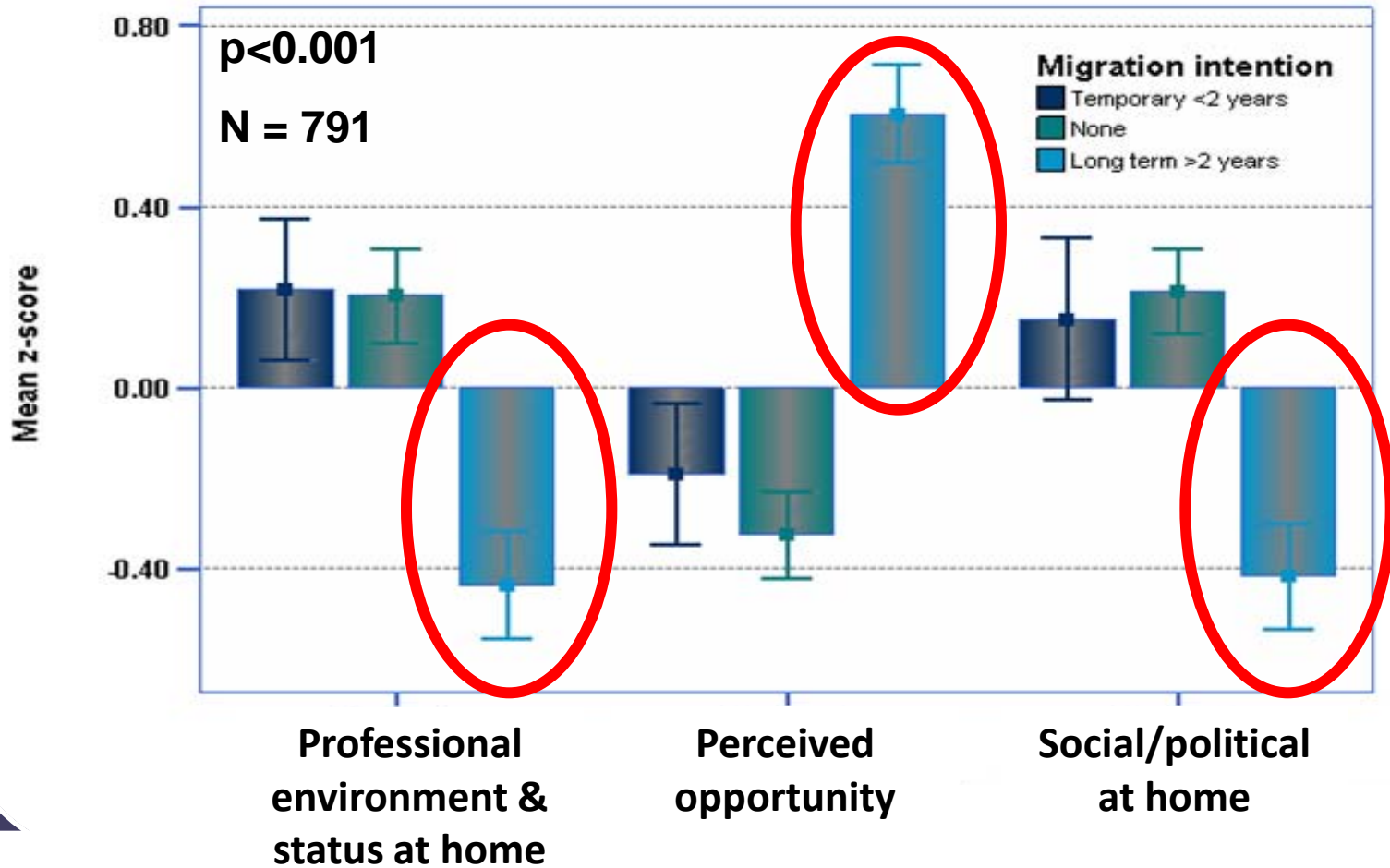
## Factor 2:

Opportunity to develop career and resources abroad  
(4 items,  $\alpha = 0.7$ )

## Factor 3:

Social and political environment in own country  
(5 items,  $\alpha = 0.7$ )

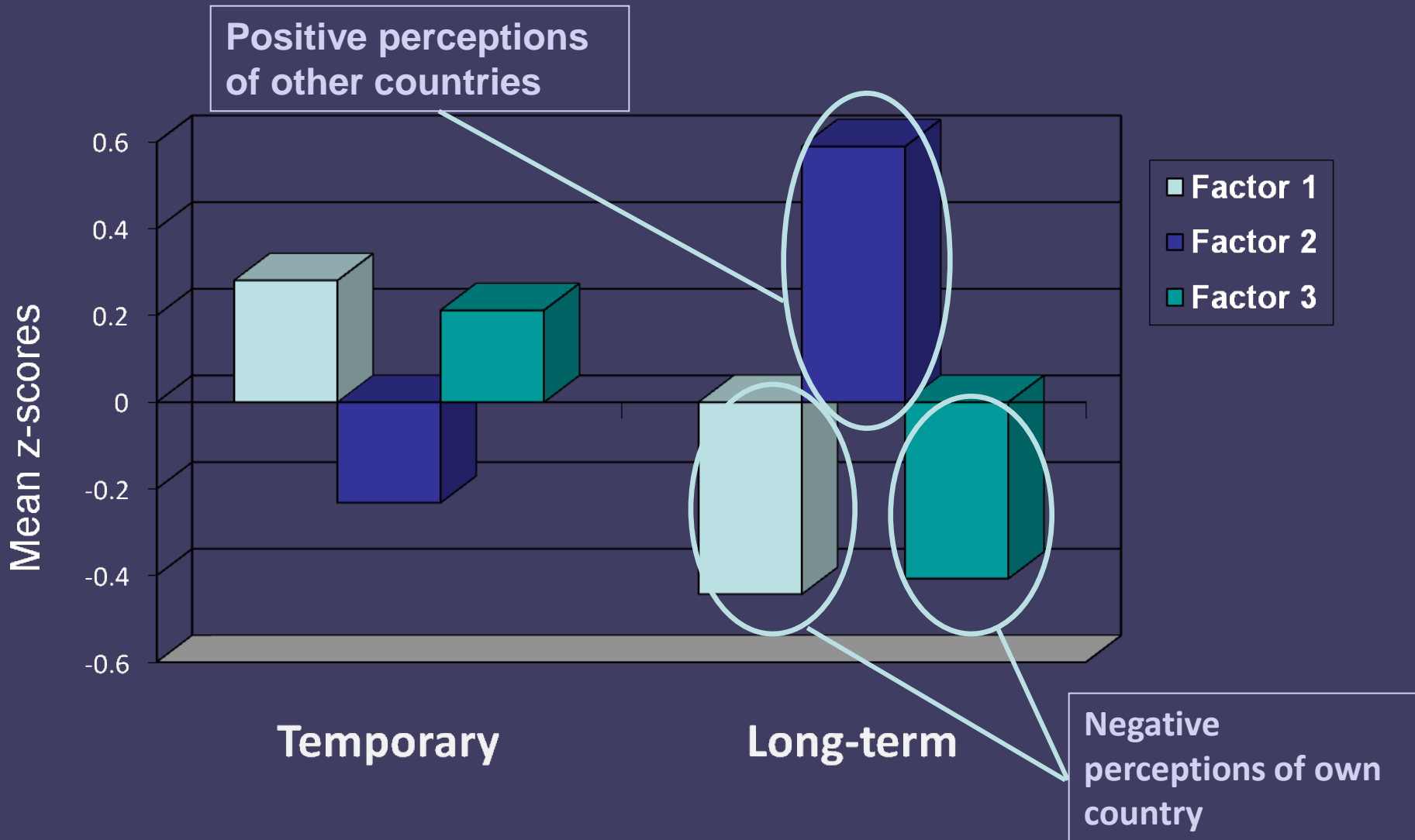




Mean factor z-scores by migration intentions of respondents



# Temporary vs. Long term migration decisions





## Workforce shortages and education capacity

Migration is a symptom, NOT the cause

*“International migration is neither the main cause nor would its reduction be the solution to the worldwide health human resources crisis.”*

J Dumont, P Zurn. OECD. Immigrant health workers in OECD countries in the broader context of highly skilled migration. 2007.



Workforce shortages and education capacity

Quality and equity in pharmacy education are  
paramount

These two factors alone may account for all the  
variance we see in observational studies



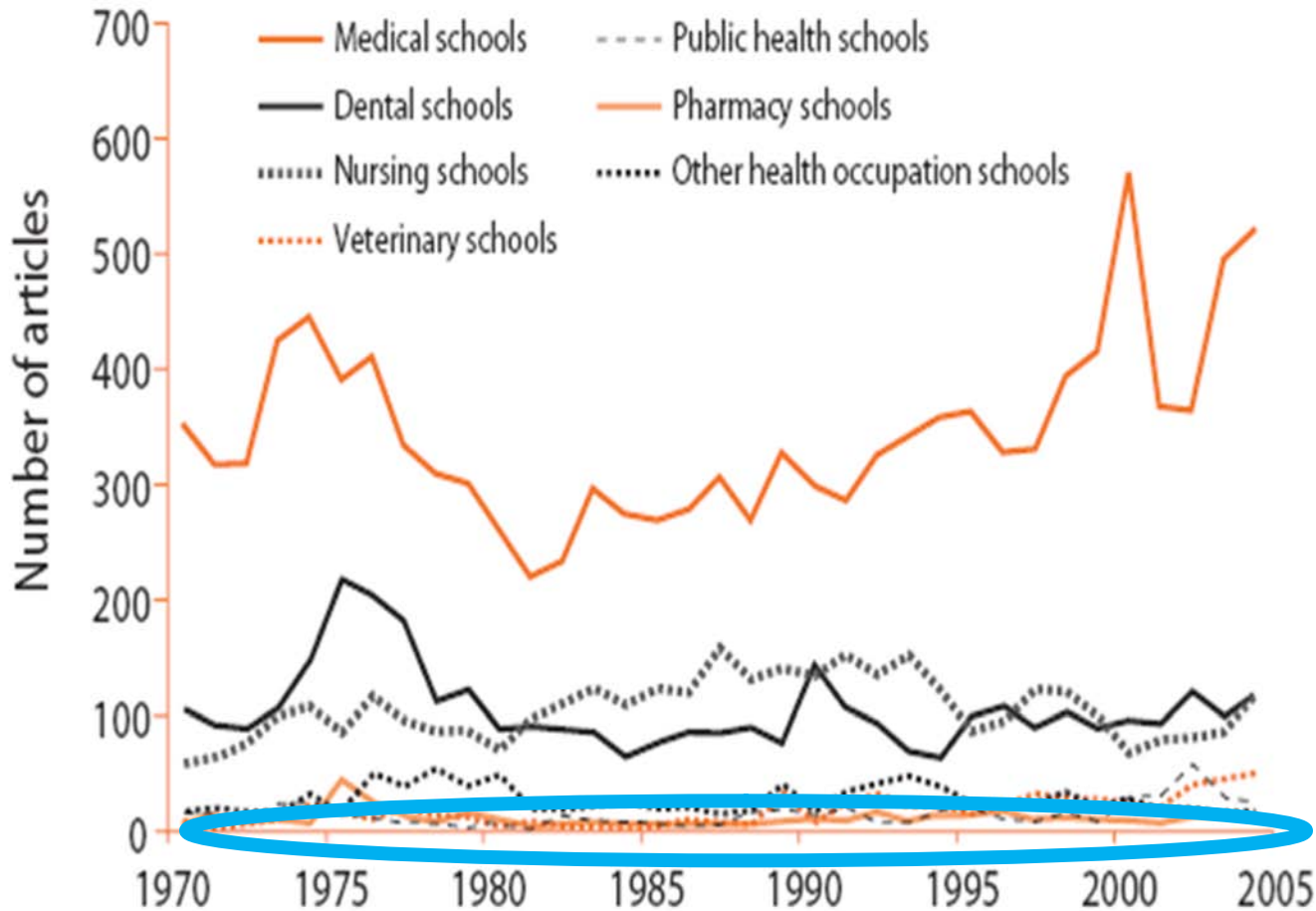
# Why is pharmacy education important?

“Inadequate human resources for health, including pharmacists and pharmacy technicians, threatens to undermine all efforts to strengthen health systems and improve healthcare”

Report of the 2006 UN Millennium project taskforce on HIV/AIDS, malaria, TB and access to essential medicines.



# Pharmacy education evidence gap



Research articles  
on health  
professions  
education

*World Health  
Report 2006.*



# FIP – WHO – UNESCO

**Global Pharmacy Education  
UNITWIN project**

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Website: [www.fip.org/education](http://www.fip.org/education)