HEALTH ECONOMICS AND OUTCOMES RESEARCH NEEDS ASSESSMENT FOR LATIN AMERICA:

RELATIONSHIP BETWEEN PERCEIVED AND EXPECTED QUALITY OF KNOWLEDGE IN A SELF ASSESSMENT SURVEY

Hincapie A[1], Hughes V[1], Neyeloff JL[2], Hernández IC[3], Azeredo-da-Silva AF[2]

[1]University of Cincinnati, Cincinnati, OH, USA
[2]Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil
[3]Instituto Mexicano del Seguro Social; Mexico.

Background

ISPOR Latin America Consortium Education Committee:
quality education on health economics and outcomes research (HEOR)

Distant Learning Program (DLP)
Good Research Practice (GRP)

Decision to translate into local languages
Consortium members' preferences

An understating of the current and desired status of HEOR educational needs in the Latin American region remains to be quantified.

Objective

To assess perceived HEOR knowledge levels and identify knowledge gaps in Latin America.

Methods

Online needs assessment survey

To quantify perceived HEOR knowledge levels and identify knowledge gaps.

ISPOR members in the Latin America region, regional chapters and student chapter presidents were invited to participate

Participation was anonymous and voluntary.

Ethical research approval was obtained.

Survey was developed in SurveyMonkey ™ and sent via e-mail to participants.

Methods

The survey included three parts:

Part 1 - Seven questions on demographic information.

Part 2 - List of 18 HEOR topics and asked the participant to rate their perceived current and desired knowledge level on each subject.

Part 3 - Two questions on preferred HEOR education and training delivery formats.

Descriptive statistics were estimated for each of the survey questions.

Results: Demographic Characteristics

Table 1: Demographic characteristics of survey respondents (n=106)

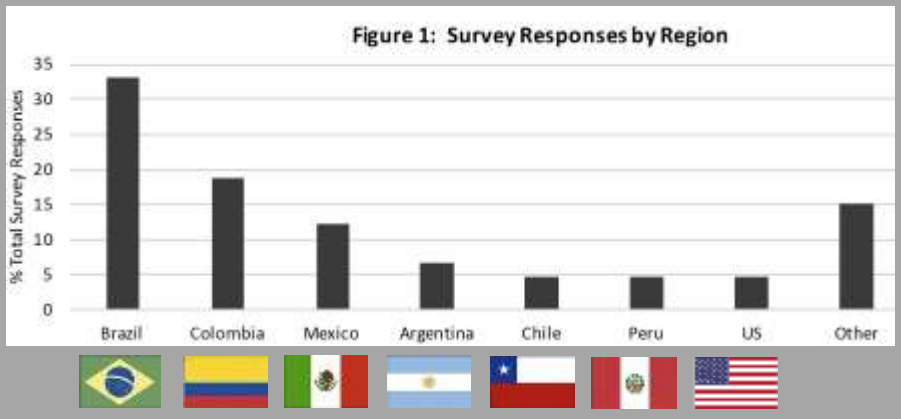
Characteristic	n (%)
Sex	
Female	50 (47)
Male	55 (52)
Prefer Not to Answer	1 (1)
Age	
25 to 34	24 (23)
35 to 44	34 (32)
45 to 54	22 (21)
55 to 64	24 (23)
65 and over	2 (2)

Results: Demographic Characteristics

Table 1:
Demographic characteristics of survey respondents (n=106)

Education	
High school degree or equivalent	1 (1)
Bachelor degree	3 (3)
Post-graduate degree (MS or MBA)	66 (62)
Post-graduate degree (PhD)	36 (34)
ISPOR membership	
I am not an ISPOR member	34 (32)
Less than a year	12 (11)
1 – 2 years	22 (21)
3 or more years	38 (36)

Results: Demographic Characteristics



Results: Demographic Characteristics

Years of experience in Health Outcomes Research from survey respondents: **mean ± sd = 10.0 ± 8.2**

Work environment:

1. Academia
2. Clinical Practice
3. Government
4. Consulting

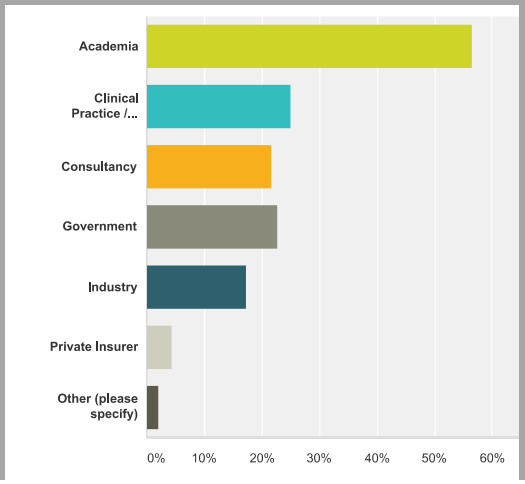


Table 2: Knowledge Area Assessment Understanding of...	Mean Current Knowledge Score	Mean Desired Knowledge Score	Mean Gap* Score	Gap Score SD
Methods for integrating medication compliance & persistence in health economic evaluations	1.69	3.88	2.05	1.68
Multi-criteria decision analysis	2.33	4.36	1.96	1.48
Modeling using discrete event simulation	2.02	4.03	1.92	1.74
Choice-based conjoint analysis (discrete choice experiments)	1.63	3.62	1.90	1.51
Optimization methods in healthcare delivery	2.07	4.06	1.90	1.54
Propensity scoring methods	1.77	3.73	1.88	1.70
Item response theory	1.61	3.51	1.80	1.65
Ability to prepare for multinational clinical trials: translation & cultural adaptation of PRO measures	1.84	3.64	1.72	1.79
Indirect treatment comparison & network meta-analysis studies	2.23	3.99	1.67	1.51
Use of public survey data in health outcomes research	2.64	4.34	1.61	1.69
Principles & methods of modeling health care costs	2.83	4.43	1.51	1.54
Analysis & interpretation of patient-reported outcomes (PRO)	2.62	4.28	1.48	1.76
Health-related quality of life (HRQOL)	3.00	4.31	1.24	1.44
Markov modeling: concepts, assumptions, applications	2.84	4.18	1.08	2.05
Systematic review & meta-analysis applications	3.27	4.38	1.07	1.63
Budget impact analysis (BIA)	3.09	4.41	1.07	1.87
Ability to present & disseminate analyses of research studies	3.52	4.58	1.00	1.44
Cost-of-illness, cost-minimization, cost-effectiveness analysis, & cost-utility analysis	3.66	4.73	0.91	1.76
Types of health care costs: direct, indirect, etc.	3.74	4.68	0.84	1.45

**Gap is calculated (using individual response pairs) = (desired knowledge level - current knowledge level)*

Results: Topics with HIGHER self-assessed knowledge gap

Table 2: Knowledge Area Assessment Understanding of...	Mean Current Knowledge Score	Mean Desired Knowledge Score	Mean Gap* Score
Methods for integrating medication compliance & persistence in health economic evaluations	1.69	3.88	2.05
Multi-criteria decision analysis	2.33	4.36	1.96
Modeling using discrete event simulation	2.02	4.03	1.92
Choice-based conjoint analysis (discrete choice experiments)	1.63	3.62	1.90
Optimization methods in healthcare delivery	2.07	4.06	1.90
Propensity scoring methods	1.77	3.73	1.88

Results: Topics with LOWER self-assessed knowledge gap

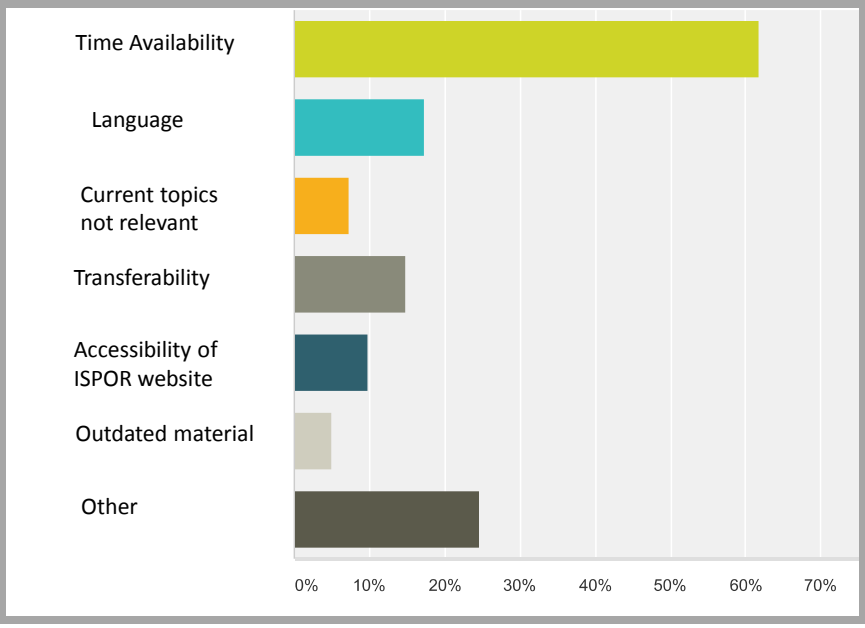
Table 2: Knowledge Area Assessment Understanding of...	Mean Current Knowledge Score	Mean Desired Knowledge Score	Mean Gap* Score
Markov modeling: concepts, assumptions, applications	2.84	4.18	1.08
Systematic review & meta-analysis applications	3.27	4.38	1.07
Budget impact analysis (BIA)	3.09	4.41	1.07
Ability to present & disseminate analyses of research studies	3.52	4.58	1.00
Cost-of-illness, cost-minimization, cost-effectiveness analysis, & cost-utility analysis	3.66	4.73	0.91
Types of health care costs: direct, indirect, etc.	3.74	4.68	0.84

Results: Preferred learning formats

Table 2: Preference for HEOR learning formats/structures (n=89, 84% of total survey responses)

	n (%)
On-line learning programs / continuing education	66 (74)
On-line resources	60 (67)
Peer-reviewed literature reviews	46 (52)
Workshops / small-group learning sessions	46 (52)
Symposia / conferences	41 (46)
Live webinars	40 (45)
Mentorship / preceptorship program	37 (42)
Expert speaker tour	26 (29)
Newsletter	15 (17)
Other	4 (4)

Results: Barriers to using ISPOR Web-Resources



Conclusion

There is significant potential for growth on HEOR topics knowledge in the Latin America region

Greater potential for improvement include more recent or more advanced topics:

(1) methods for integrating medication compliance and persistence in economic evaluations

(2) multi-criteria decision analysis

(3) discrete event simulation

(4) discrete choice experiments

(5) optimization methods in healthcare delivery

(6) propensity scoring methods

Conclusion

Understanding and interpretation of basic HEOR topics appears to have been accomplished

- Health economics costing concepts
- Types of health economic evaluations
- Principles of decision analytic modeling for cost-effectiveness analysis
- Principles of Markov models

ISPOR audience is not comprised of beginners!

Preference for online learning platforms


THANK YOU – GRACIAS – OBRIGADO
CONTACT INFORMATION:
ANA HINCAPIE - hincapaa@ucmail.uc.edu
ANDRE AZEREDO DA SILVA - andre@hcpa.edu.br
JERUZA NEYELOFF – jneyeloff@hcpa.edu.br
ISPOR
UNIVERSITY OF Cincinnati
HOSPITAL DE CLÍNICAS