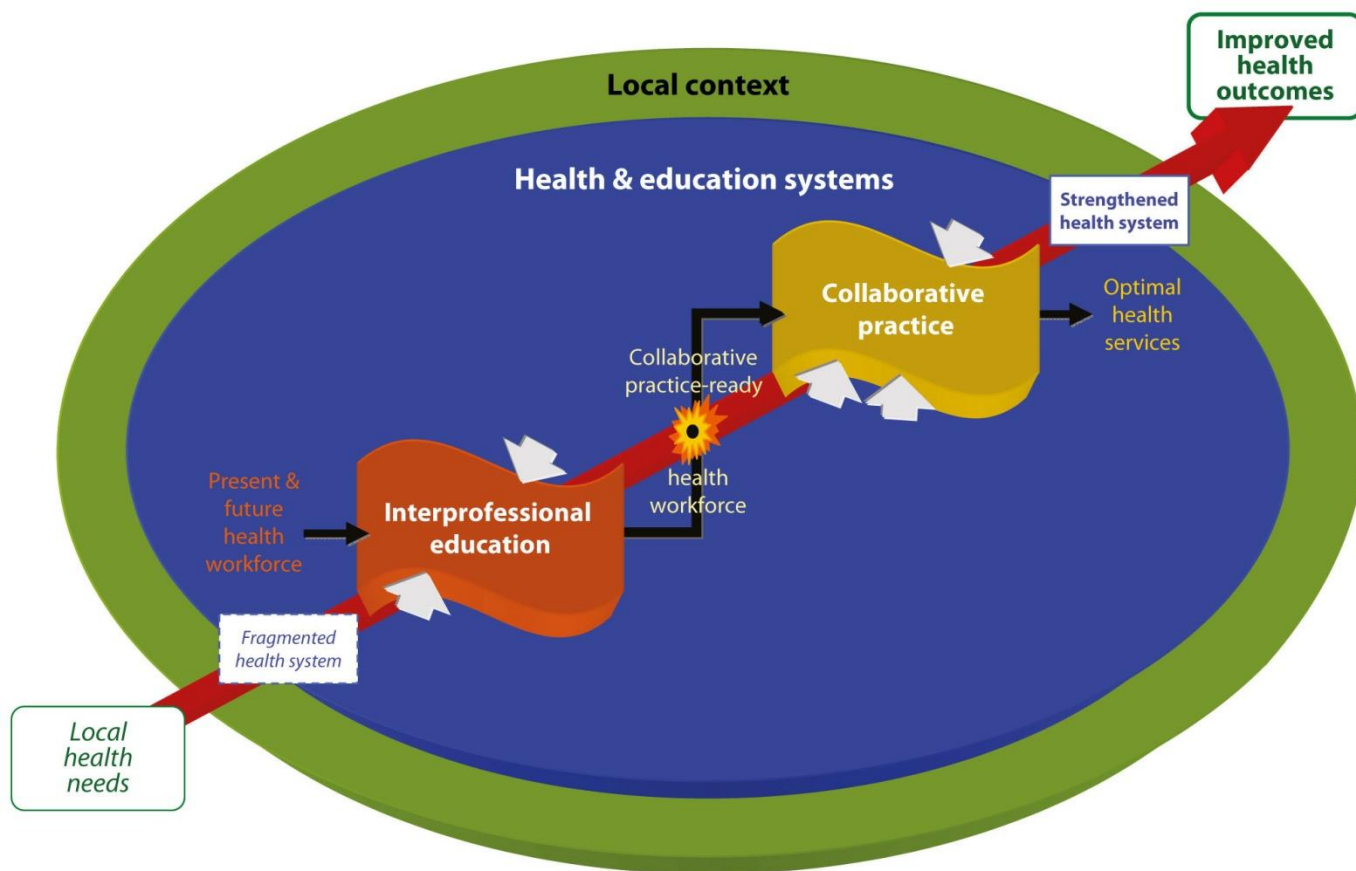


Evaluation of Interprofessional Education at Memorial University: Implications and Sustainability

Dennis Sharpe, PhD

CSRT Education Conference
St. John's, NL
May 2010

World Health Organization: Health & Education System



From: World Health Organization (2010). *Framework for Action in Interprofessional Education and Collaborative Practice*. Geneva: Department of Human Resources for Health, page 9.

Intent of Presentation

- **Briefly outline the current Interprofessional Education (IPE) context at Memorial**
- **Describe the IPE curriculum framework and learning delivery approaches**
- **Outline how the various elements of IPE were evaluated with sample results**
- **Discuss the implications of our evaluation to date in terms of informing best practices**
- **Describe the factors that potentially impact the sustainability of IPE**

Context of IPE at Memorial

- The Centre for Collaborative Health Professional Education (CCHPE)
- Includes several academic partners:
 - School of Pharmacy*
 - School of Nursing (Memorial)*
 - Western Regional School of Nursing
 - Centre for Nursing Studies
 - Faculty of Medicine*
 - School of Social Work*
 - Memorial's Counselling Centre*
 - Faculty of Education*
 - School of Human Kinetics & Recreation*
 - Department of Clinical Psychology
- Traditional independence / autonomy of programs

Health Canada Funding

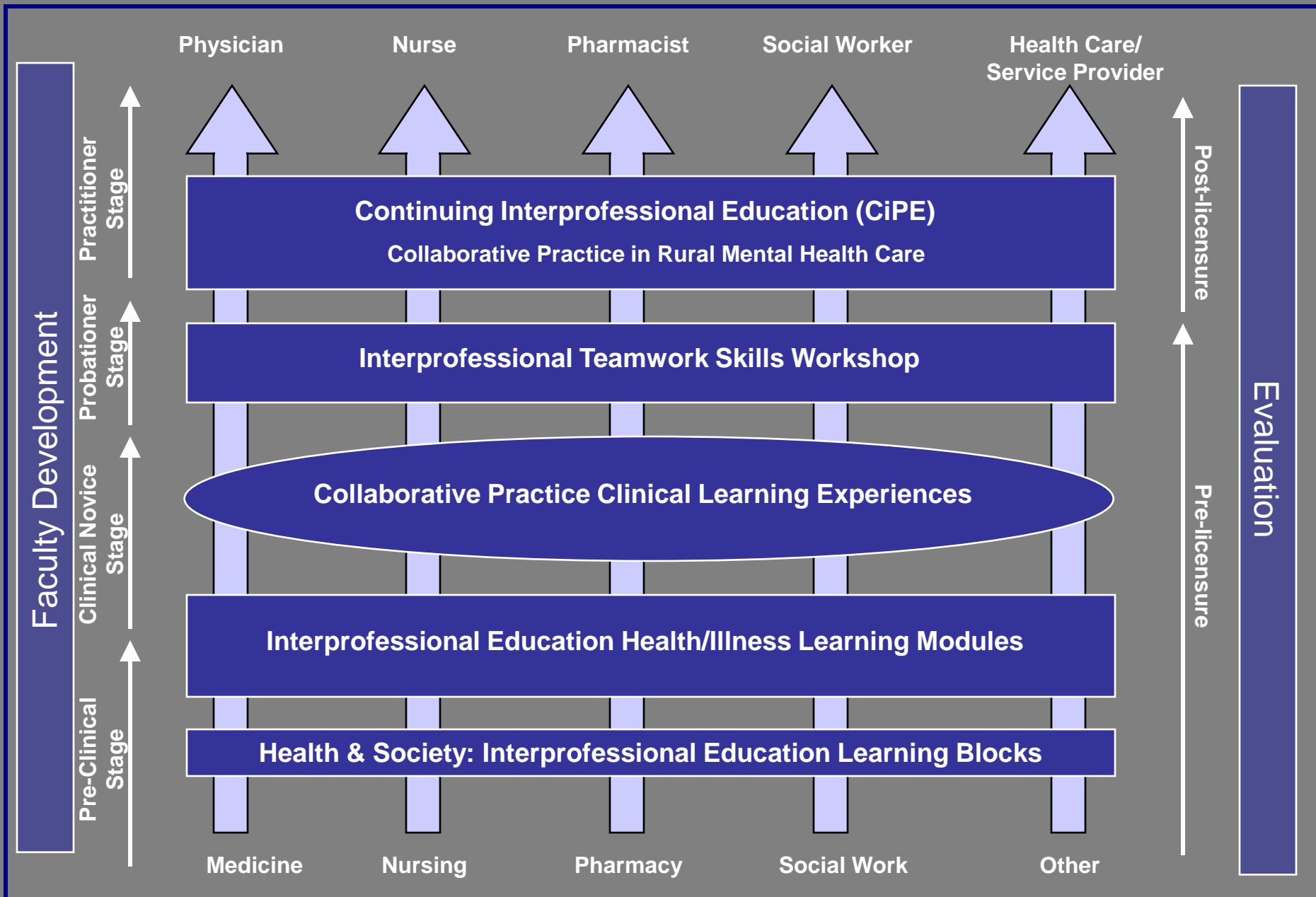
- IECPCP initiative (2005-08)
Collaborating for Education and Practice: An Interprofessional Education Strategy for Newfoundland and Labrador
- Development of a comprehensive IPE curriculum framework
- Building on initial Centre (CCHPE) experience

Overall IPE Curriculum Goal



Expand and promote interprofessional education activities in both education and practice settings, and thereby enhance the collaborative patient-centred practice competencies of an increased number of learners and practitioners in Newfoundland and Labrador.

Interprofessional Education Curriculum Framework



Context of Newfoundland and Labrador and Canadian Health System

Undergraduate / Pre-licensure IPE

1. Modules and blocks
2. Collaborative practice learning experiences

Interprofessional Education

(Pre-Licensure/Undergraduate Modules and Blocks)

- Engaged over 80 faculty members across programs
- Managed by CCHPE staff

Interprofessional Learning Blocks	Interprofessional Education Modules
<ol style="list-style-type: none">1. Health promotion2. Professionalism & teamwork3. Service learning project	<ol style="list-style-type: none">1. Health & Wellbeing of Children2. Rehabilitative Care3. Geriatric Care4. HIV/AIDS Care5. Collaborative Mental Health Practice6. Newborn Care7. Patient Safety

Focus of Module (Case-Based) Content

Health & Wellbeing of Children – child abuse

Rehabilitative Care – stroke rehabilitation

Geriatric Care – elder abuse

HIV/AIDS Care – AIDS patient case

Collaborative Mental Health Practice – geriatric depression

Newborn Care – breastfeeding

Patient Safety - adverse events disclosure

Program Delivery Context

- Approximately 1200 students in health programs with unequal numbers in each participating academic unit
- Two of three nursing schools not on campus
- Students enter their programs with variety of backgrounds and experience
- Almost all regular health program content delivered traditionally
- Already crowded program curriculum and challenge to find time slots and space for IPE activities
- Modules integrated within existing (required program) courses across curricula to reduce added content
- Utilize patient-centred, case-based learning methodology and interprofessional learner groups
- Work with faculty teams with members from each academic unit to develop and schedule modules
- Desire2Learn (D2L) university distance learning platform

Aligning IPE Module Content with Program Courses

Example:

Collaborative Mental health Practice Module
(Focus on geriatric depression case study)

Program Courses:

Nursing 3001- Nursing concepts for mental health

Medicine 6650 – Integrated study of disease II (Psychiatry)

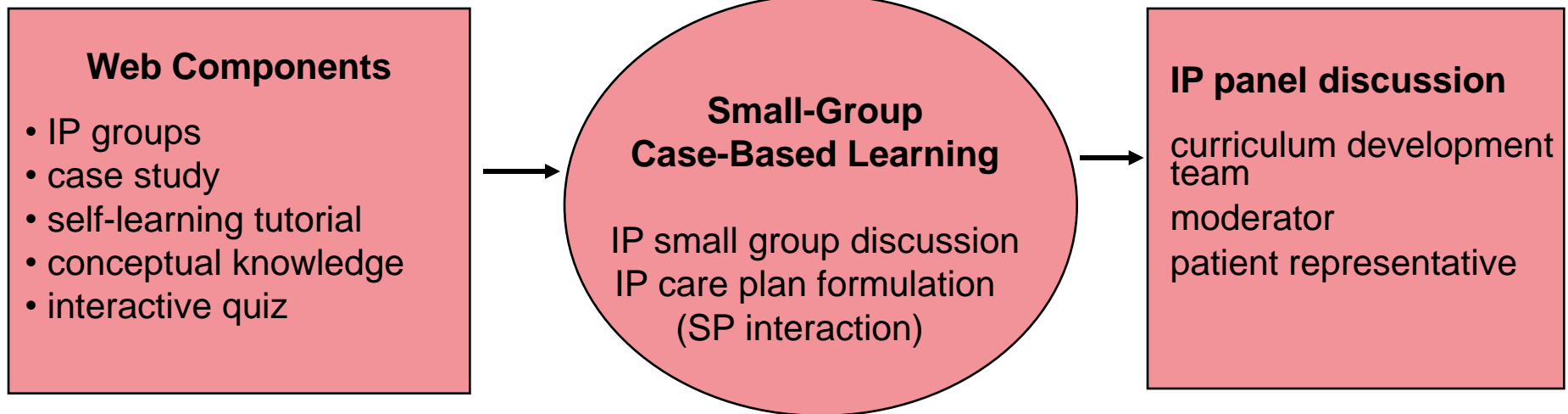
Pharmacy 5401- Therapeutics III

Social Work 5325- Family counselling and therapy

Interprofessional Education Modules Blended Learning Instructional Design Model

1-3 weeks web-based e-learning

Evening or Day Time Slot Face-to-Face Learning



Assessment Criteria

varies with module

mandatory attendance/participation in face-to-face component

Undergraduate Interprofessional Collaborative Practice Learning Experiences

- Will involve about 400 medicine, nursing, pharmacy and social work students per year
- Planned one day workshop for students and preceptors on collaborative competencies
- Will involve pre-post measures on
 - Attitudes toward interprofessional healthcare teams
 - Team skills scales
 - Competency reflection journal (teams and team member roles)

Interprofessional Collaboration Workshops (Teams in Practice)

- One day workshops offered to post-graduate medical residents, medical faculty / staff, nursing, and allied health staff
- Focus on effective participation on:
 - interprofessional healthcare teams
 - understanding & appreciating roles of others
 - collaborative competencies
- 2006 - 2009 work with 12 teams and 23 different professions
- **Results:**
 - 88% agreed or strongly agreed workshop was a meaningful experience
 - 83% intended to change their practice / work
 - Significant increase in pre-post attitudes toward IP teams

Collaborative Practice in Rural Mental Health

- Focus on collaborative mental health competencies in rural communities
- Utilized six primary health care sites
- Delivered to 125 individuals representing 15 different professions
- Content focus on several critical domains of mental health practice
- Curriculum delivery for each site involved:
 - 1 full day on site addressing team and relationship building
 - 8 two-hour video conference sessions

Evaluation Elements

- Used a modified version of Kirkpatrick's program evaluation model
- Collected baseline attitude survey data on interprofessional education and interprofessional teamwork
- Developed measures and evaluated each component of the curriculum framework
- Qualitative data collected through focus groups and interviews

PROGRAM EVALUATION MODEL

Component	Example Outcomes
Reaction	Learners' views of the interprofessional education experience.
Modification of attitudes & perception	Changes in perception or attitudes towards the value and/or use of interprofessional teams and teamwork.
Acquisition of knowledge & skills	Knowledge and skills related to interprofessional collaboration.
Behavioural change	Transfer of interprofessional learning to practice settings and changed professional practice.
Change in organizational practice	Impact and changes in health care organizations or health care system.
Benefits to patients or clients	Improvements in health or well being of patients or clients.

Freeth, Hammick, Koppel, Reeves and Barr (2002)

Baseline Attitudinal Measures

Instruments used:

Attitudes Toward Health Care Teams by Heinemann, G.D., Schmitt, M.H. & Farrell, M.P. (1999)

[14 items using a Likert scale of 1= strongly disagree to 5= strongly agree]

Readiness of health care students for interprofessional learning (RIPLS) by Parsell, G. & Bligh, J. (1999)

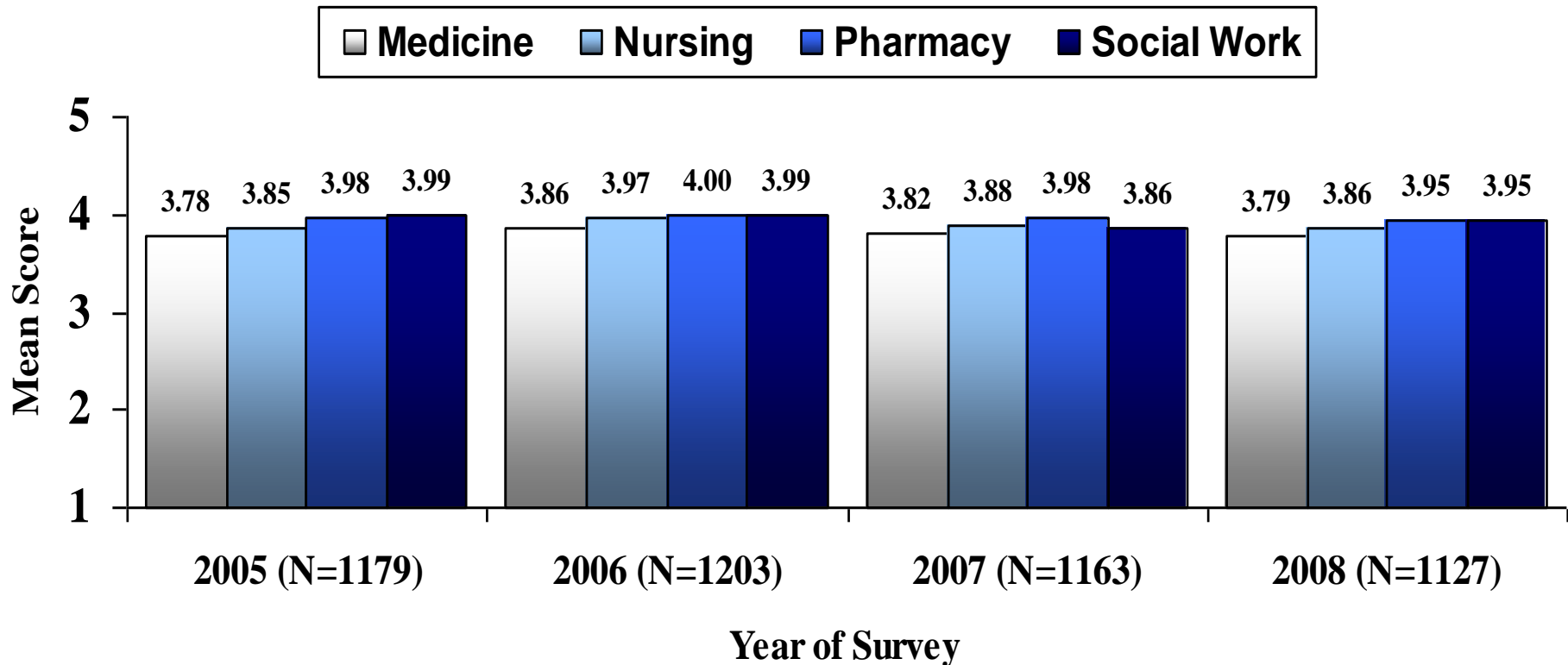
[15 items using a Likert scale of 1= strongly disagree to 5= strongly agree]

Administration:

- All students in each program year of Medicine, Pharmacy, Social Work, Nursing
- Approximately 1150 responses (about 85% return rate) each year
- Measures used 2005 to 2008 academic years

Overall Mean Scores by Profession

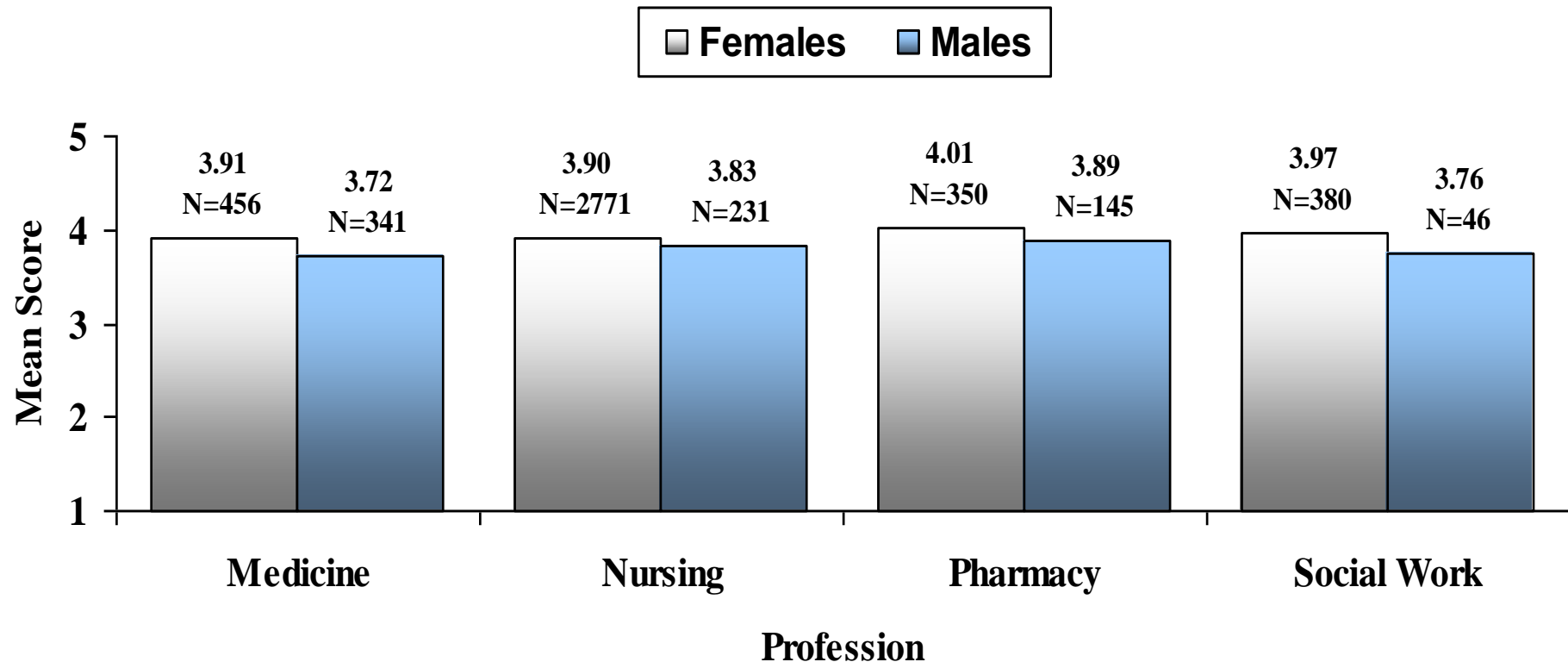
Attitudes Towards Interprofessional Health Care Teams



Medicine student scores significantly ($p < .05$) lower mean than most other professions each year.

Overall Mean Scores by Gender

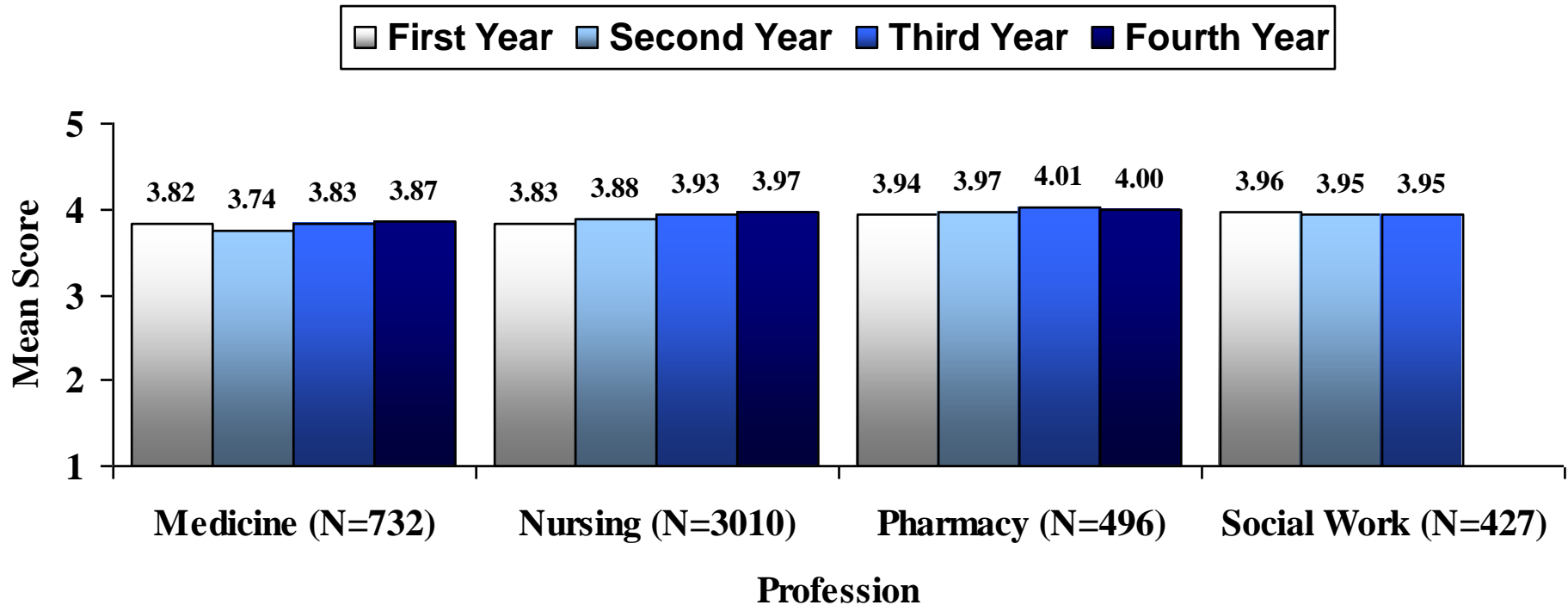
Attitudes towards Inteprofessional Health Care Teams



Females reported significantly higher mean scores than males across all professions ($p < .05$).

Overall Mean Scores by Year of Study

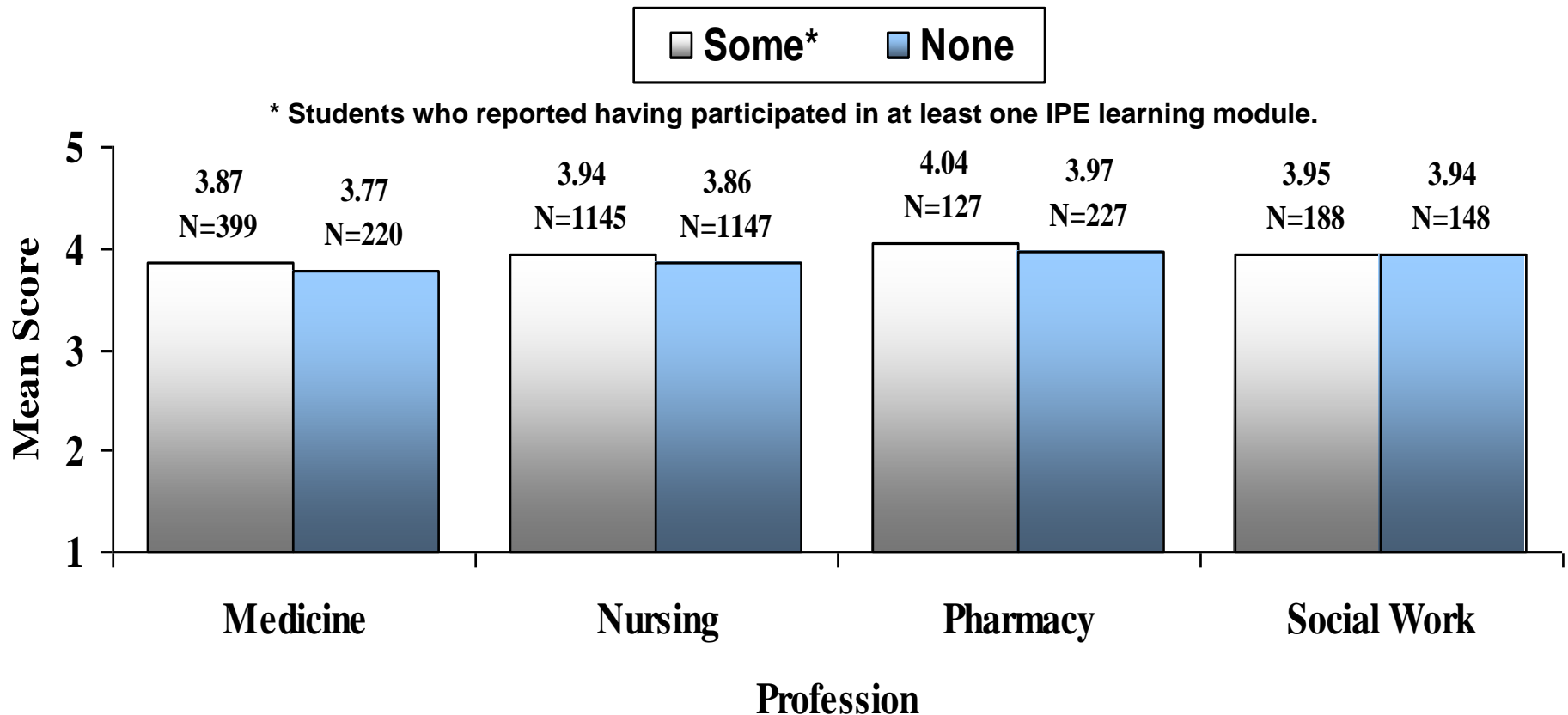
Attitudes towards Inteprofessional Health Care Teams



Across most professions 1st and 2nd year students reported lower mean scores than 3rd and 4th year students ($p < .05$).

Overall Mean Scores by Prior IPE Experience

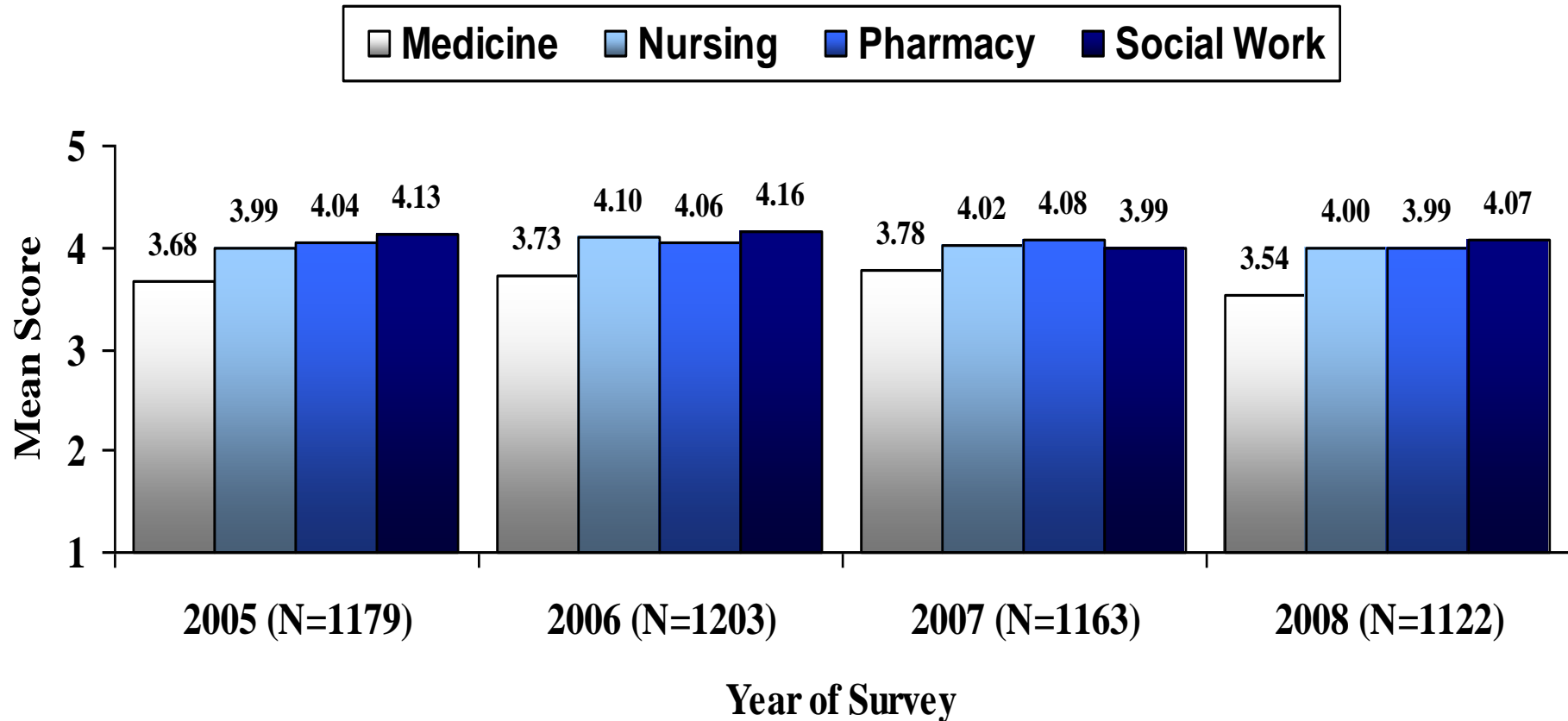
Attitudes towards Inteprofessional Health Care Teams



Students with some prior IPE experience reported significantly higher mean scores those with no prior IPE experience in Medicine ($p=.002$), Nursing ($p=.000$), and Pharmacy ($p=.030$)

Overall Mean Score by Profession

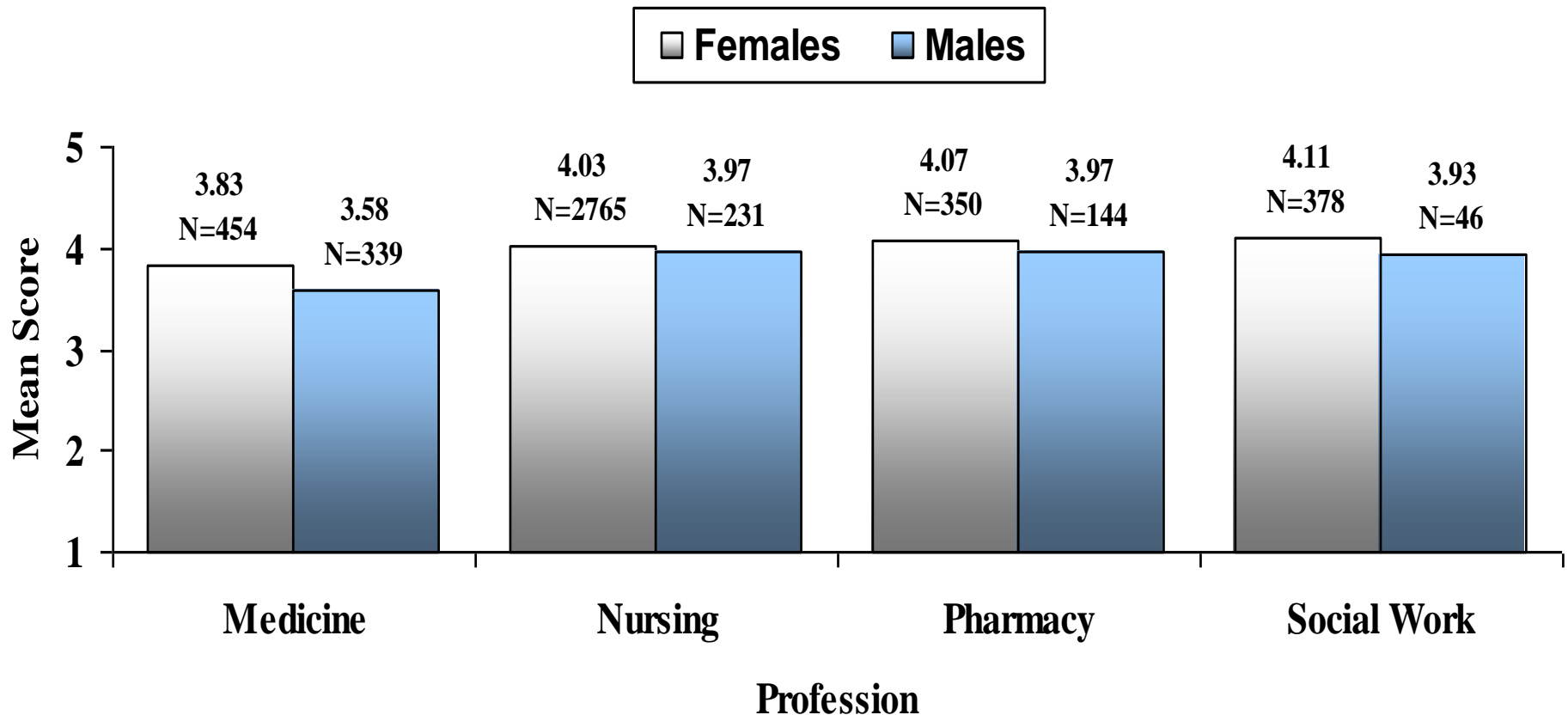
Attitudes towards Interprofessional Education



Medicine students reported significantly ($p < .05$) lower mean scores than other professions across all years.

Overall Mean Scores by Gender

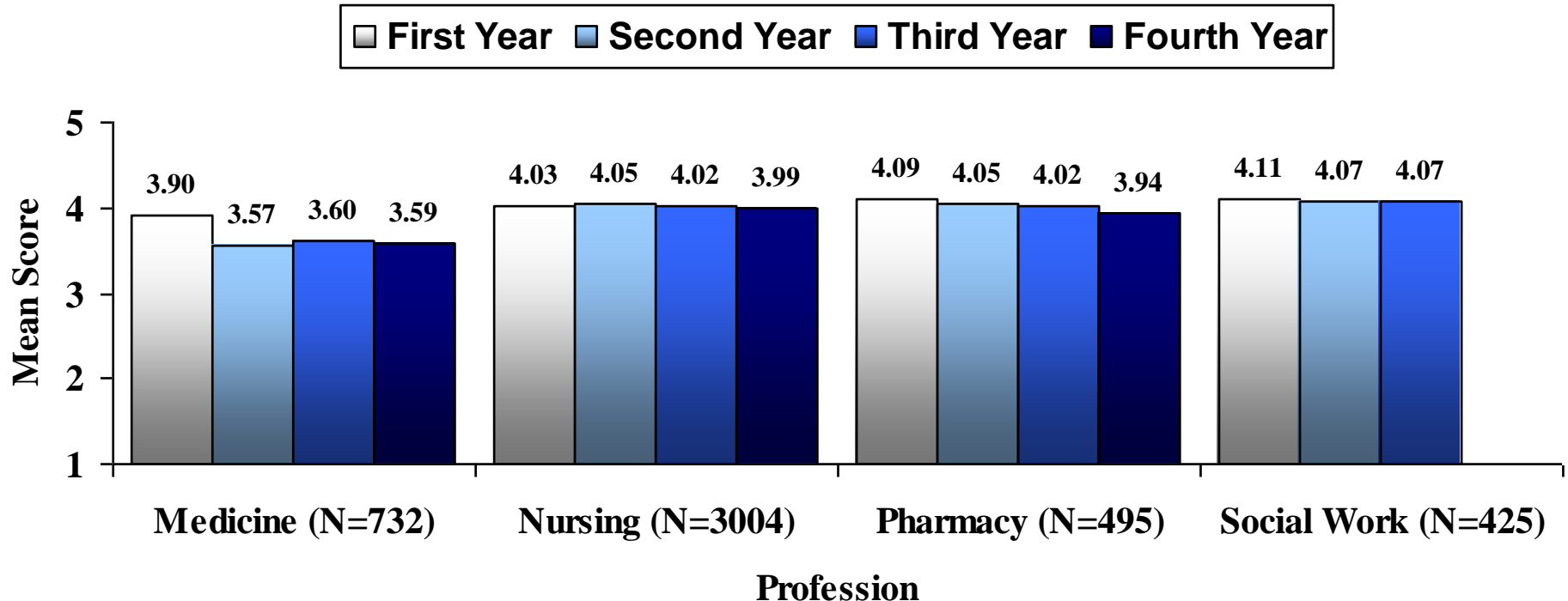
Attitudes towards Inteprofessional Education



Females from each profession reported significantly higher mean score than males ($p < .05$).

Overall Mean Scores by Year of Study

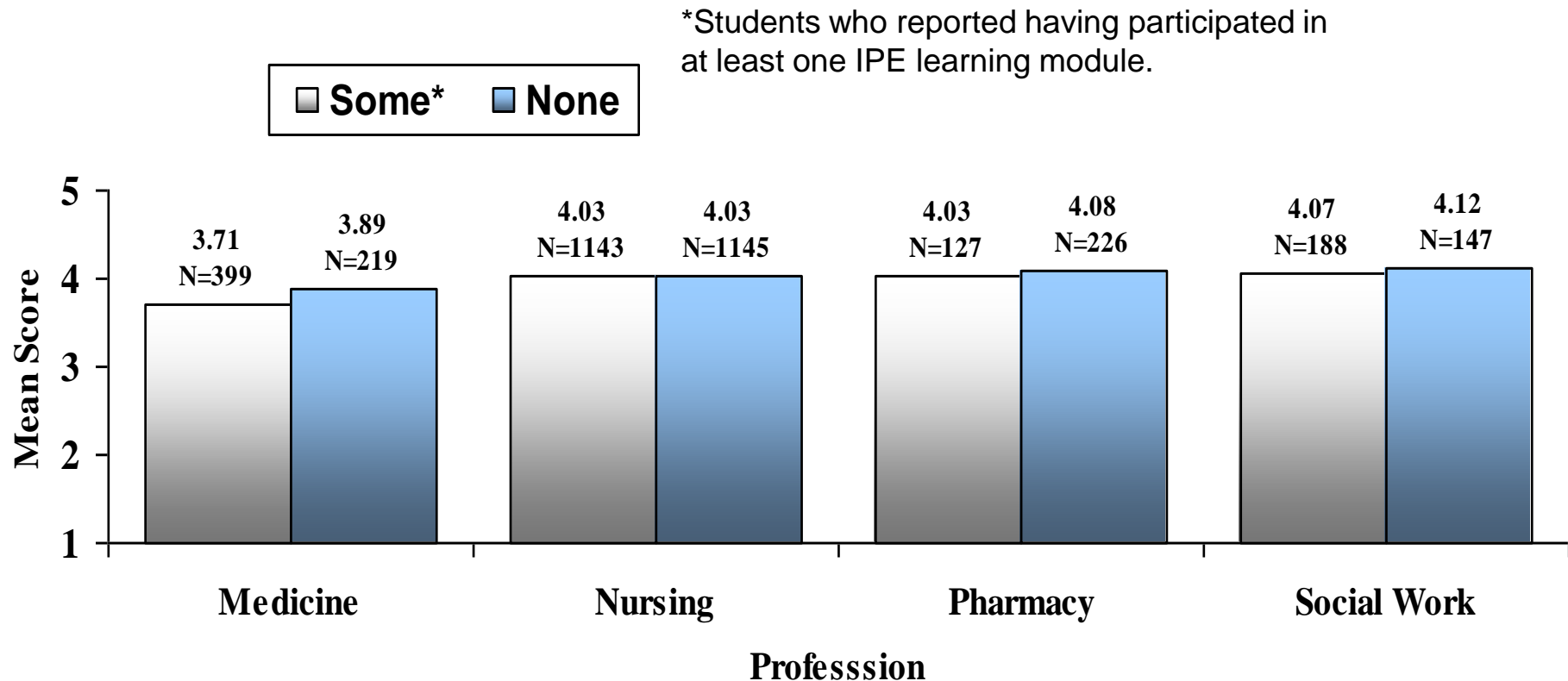
Attitudes towards Inteprofessional Education



Across most professions 1st year students reported significantly higher mean scores than all other years ($p < .05$).

Overall Mean Scores by Prior IPE Experience

Attitudes towards Inteprofessional Education

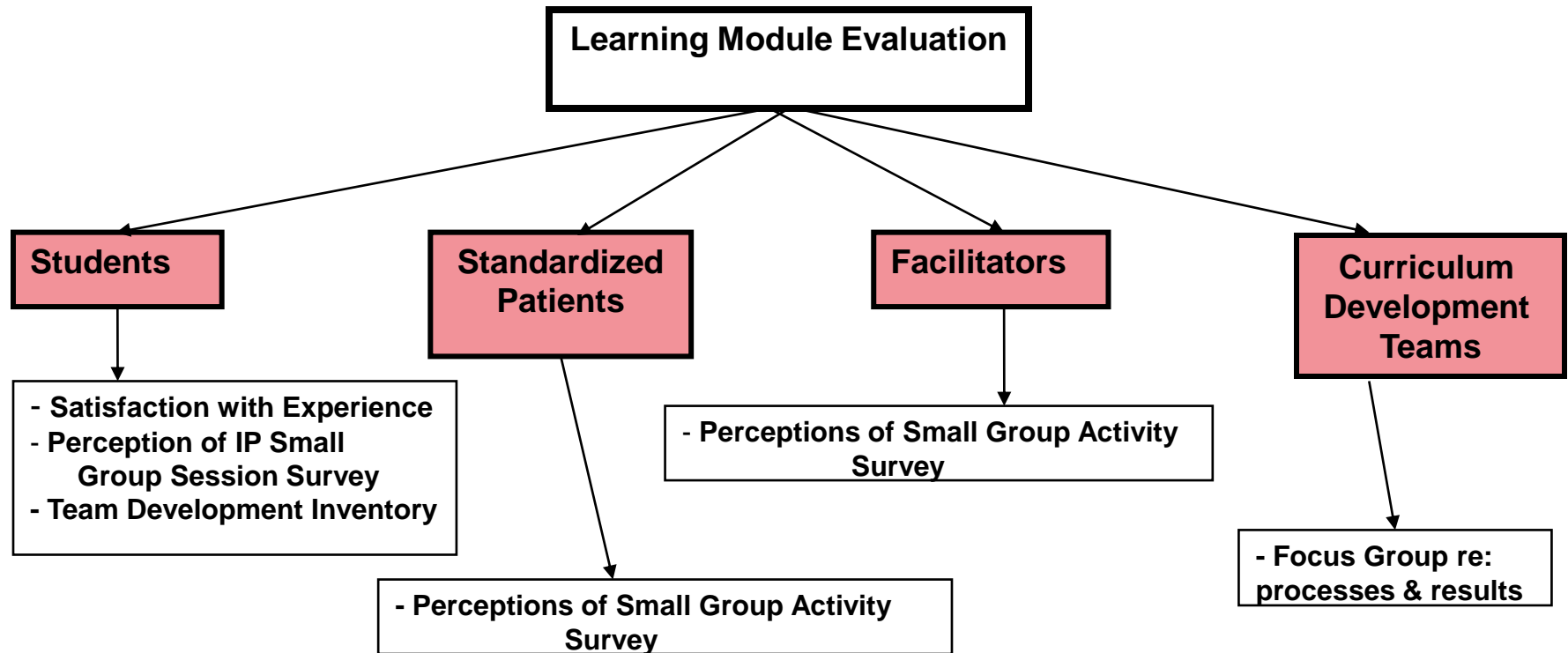


Medical students with no prior IPE experience reported significantly higher mean scores ($p=.000$) than those with some prior IPE experience.

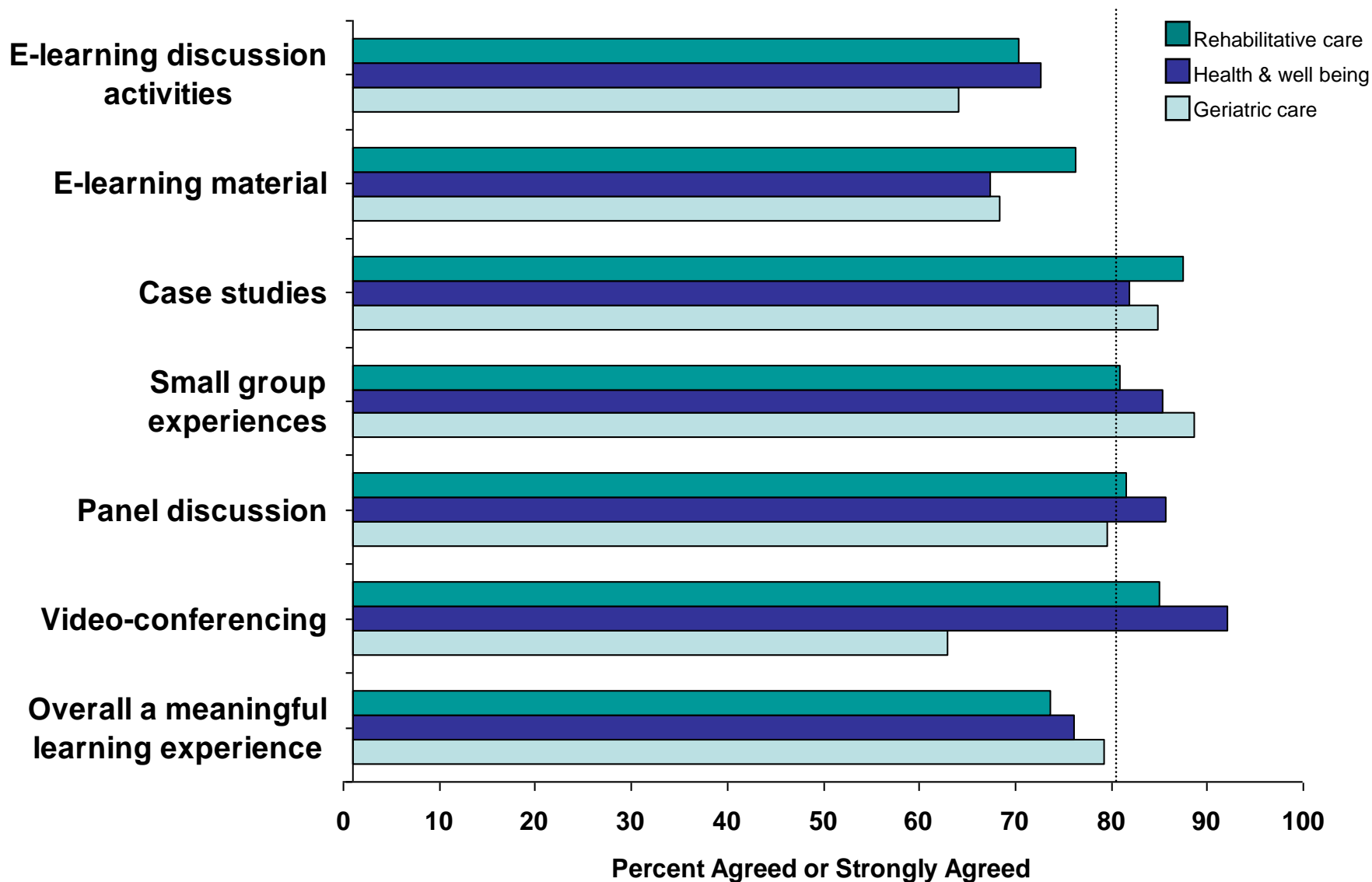
Summary of Baseline Attitudinal Measures

- Attitude scores related to IPE and IP teamwork remained consistently high from year to year
- There were differences by health program group
- The scores of social work, nursing and pharmacy tended to be higher than those of medicine students
- IP health care team scores generally increased from year 1 to year 4 students
- By contrast, IPE scores were higher for year 1 students
- Gender differences were evident, with females scores higher on both scales
- Prior IPE experience tended to impact teamwork scale positively, but had the reverse effect on IPE attitudes

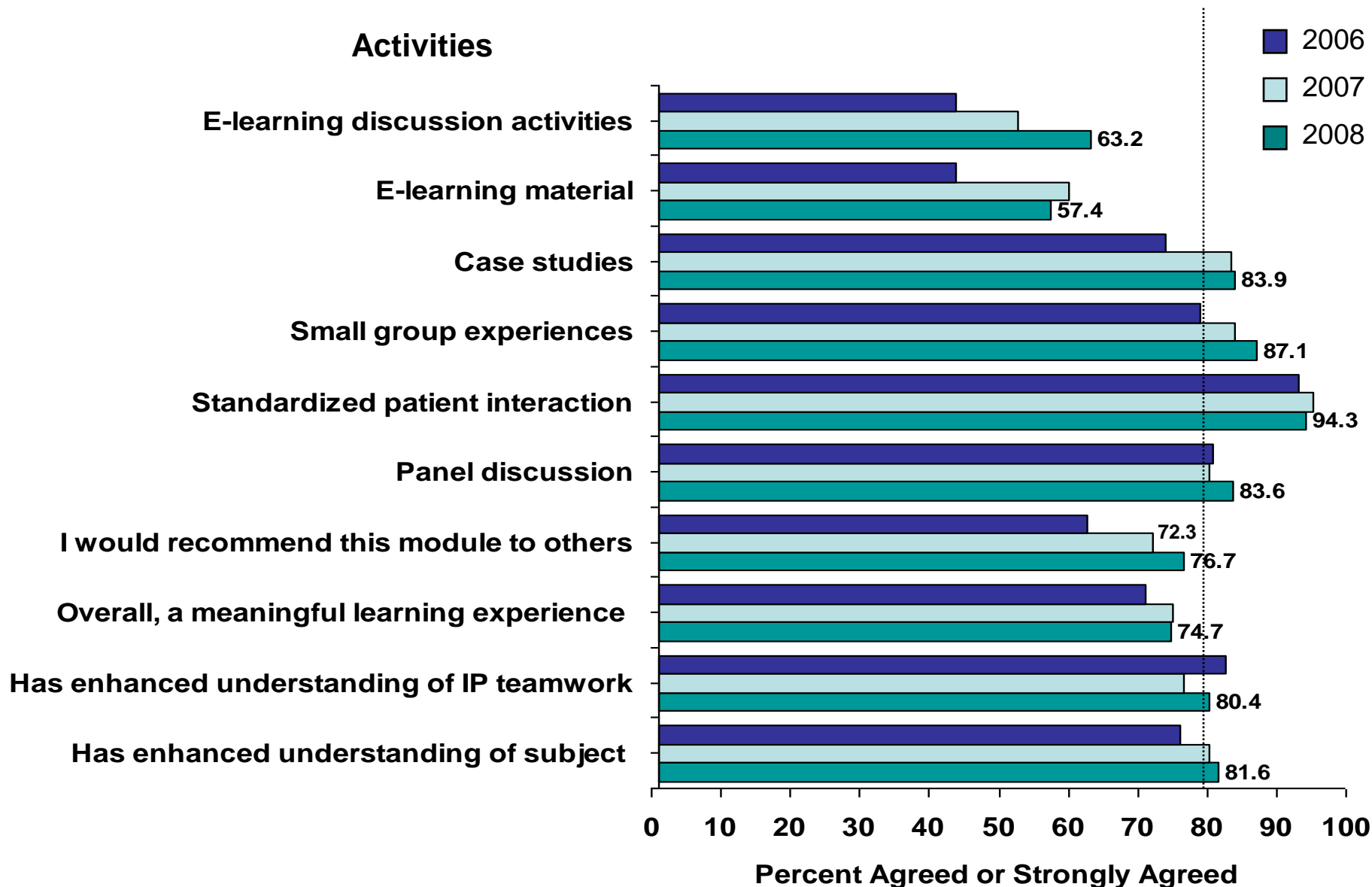
IPE Learning Module Evaluation



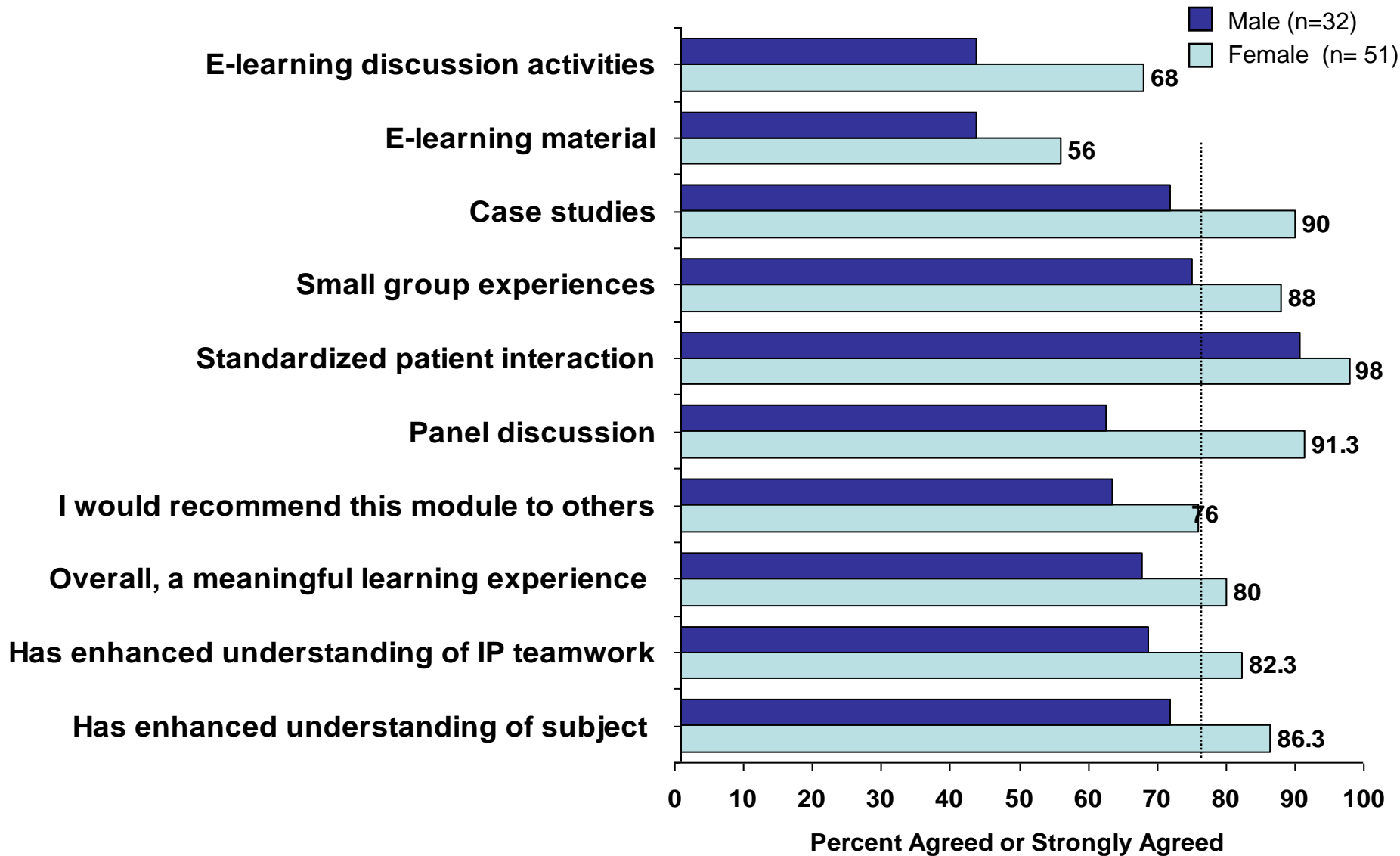
Satisfaction with Module Learning Activities



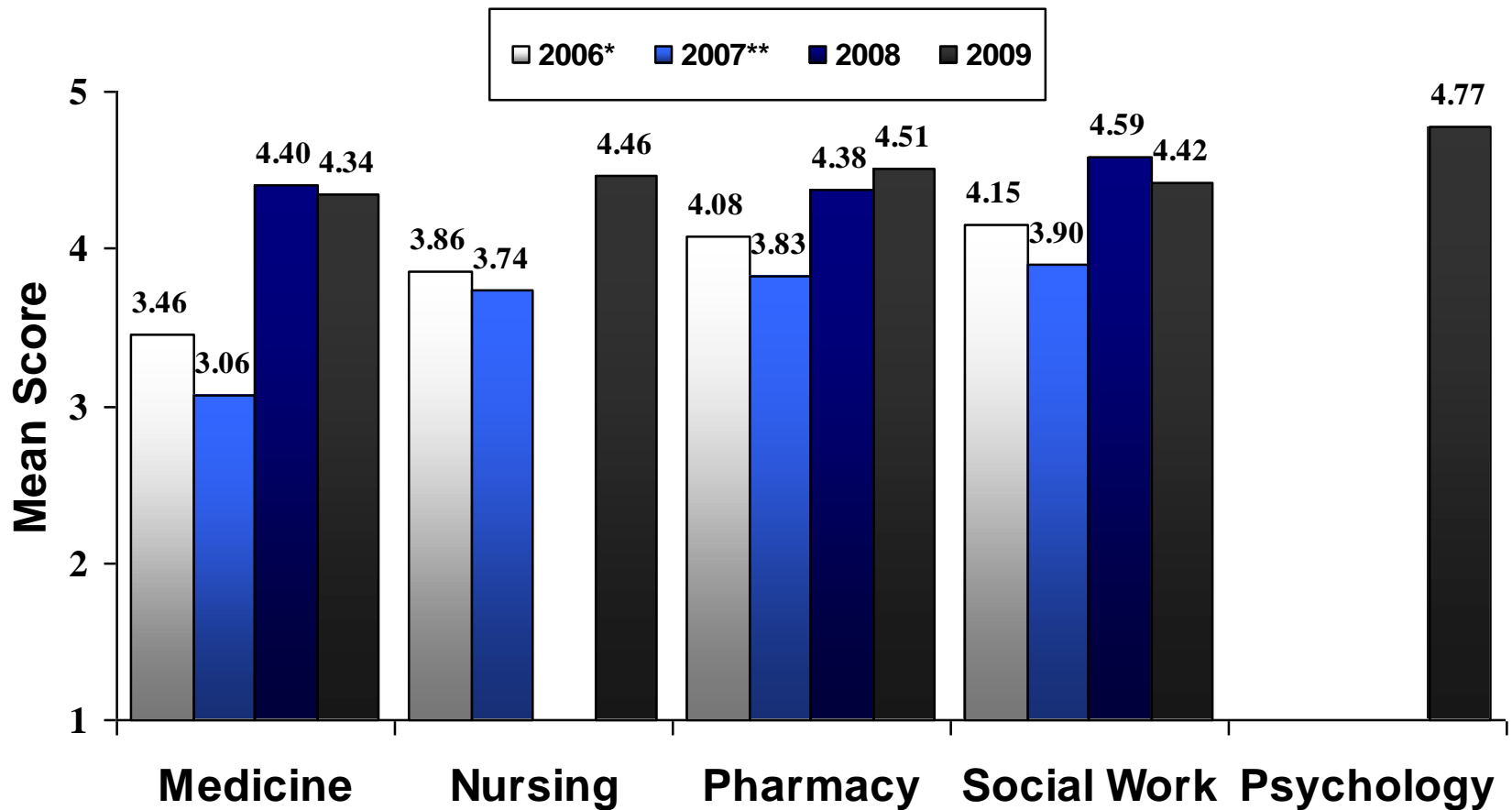
Satisfaction with HIV/AIDS Module Activities



Satisfaction with HIV/AIDS Module by Gender



Mean Satisfaction Scores - Collaborative Mental Health Practice Module



IPE Module Evaluation Results (1)

- Experiential learning components such as small group work and standardized patient interaction highly rated
- Differences in satisfaction were evident by discipline
- Students were less enthusiastic with the e-learning components (and evening time slots)
- Gender differences were very evident: male satisfaction lower
- Satisfaction scores of all students increased over time as module deliver processes were modified based on feedback

IPE Module Evaluation Results (2)

Student quotes from open ended questions:

“The standardized patient allowed our first real life interprofessional scenario and was very beneficial.”

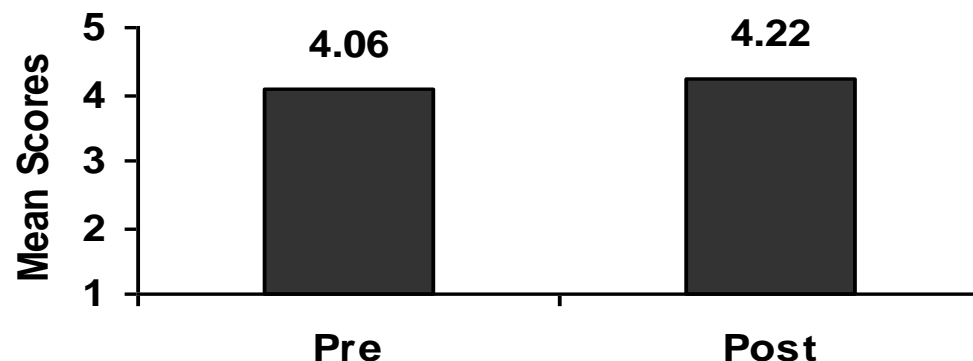
“Allowed us to see our profession at work and also get a feel for what other professions focus on/pay attention to.”

“This was a great module with regards to the interaction and respect for other disciplines. This was apparent with small group discussions.”

Collaborative Practice in Rural Mental Health Evaluation

- Used pre and post measures:
 - Demographics
 - Attitudes toward interprofessional mental health
 - Perceptions of interprofessional collaboration (learning on teams)
 - Confidence with mental health issues and interventions
- Sample results:

Mean Attitudes Towards IP Mental Health Care Teams (n=47)



Significant increase in mean scores ($p=.01$)

Summary & Conclusions

1. **Implications for Best Practices**
2. **Building sustainability**

Implications for Best Practices

- Consider when to introduce IPE curriculum
- Blended learning helps overcome some logistical barriers, but needs to be well designed
- IPE needs to be fully integrated into programs to avoid perception of “add-on” content
- Need for supportive (and prepared) faculty and staff
- Address issues (scheduling) that can impact student attitudes and motivation
- Consider relevance of case-studies to all participant groups
- Combinations of uniprofessional and interprofessional groupings useful in curriculum delivery
- Expose students to a reasonable number of well prepared and coordinated IPE activities
- Do not over evaluate IPE participants

Building Sustainability

- Establish IPE as a required element of programs
- Treat as an integral part of each student's program
- Get people on side and involved – administration, faculty, instructors, staff, students
- Encourage participation in an association such as NaHSSA
- Build system support and partnerships (health authorities)
- Recognize (reward) faculty and instructors
- Evaluate and provide evidence – short and long term outcomes
- Build faculty, instructor, staff support and development through workshops, etc.
- Develop leadership at different levels

Thankyou!

Questions?

Comments?

dsharpem@mun.ca

www.med.mun.ca/cchpe/