The idea that students from a variety of health professions should train together has existed for many years. However, it is only relatively recently that the concept of interprofessional education (IPE) has been crystallized and has received widespread endorsement as a means to prepare physicians and other members of the health care team for practice in a collaborative care model.\textsuperscript{1,2} For example, in 2005 the American Medical Association Initiative to Transform Medical Education (ITME) identified the need for physicians to be better prepared to work in teams.\textsuperscript{7}

This report provides an update on the current status of IPE for physicians-in-training and will highlight the successes that have been achieved. This discussion will use the definition of interprofessional education proposed by the World Health Organization in 2010:

When students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes.\textsuperscript{3}

TRENDS IN INTERPROFESSIONAL EDUCATION FOR MEDICAL STUDENTS

Based on data from the Liaison Committee on Medical Education Annual Medical School Questionnaire, the number of US medical schools that require IPE experiences for medical students is steadily increasing (see Table 1).

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Number (%) of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008*</td>
<td>56 (44%)</td>
</tr>
<tr>
<td>2008-2009*</td>
<td>67 (53%)</td>
</tr>
<tr>
<td>2009-2010**</td>
<td>81 (62%)</td>
</tr>
<tr>
<td>2010-2011***</td>
<td>85 (65%)</td>
</tr>
</tbody>
</table>

* (126 schools), ** (130 schools), *** (131 schools)
In addition to the overall increase, the number of schools where IPE experiences occur in the 1 patient care setting increased from 18 (14%) in the 2007-2008 academic year to 41 (48%) in the 2010-2011 academic year. A number of medical schools provide IPE experiences in more than one year of the curriculum. Of the 85 schools that offered IPE experiences in the 2010-2011 academic year, 34 had experiences in two curriculum years, 14 had experiences in three curriculum years, and 8 had experiences in all four years of the curriculum. It will be important to continue to study IPE experiences for medical students so that gaps in training can be identified.

There are many indications that IPE is gaining attention and prominence. The Third Biennial Interprofessional Education Conference in 2011, sponsored by the US-Canadian Collaboration Across Borders initiative, was sold out with more than 800 participants. This represents a significant growth from the 300 participants at the first conference.

RECOMMENDATIONS FOR IPE COMPETENCIES AND STANDARDS

In order to build some consistency in the discourse about IPE and to stimulate IPE across professions, there have been recommendations for both competencies and accreditation standards.

IPE Competencies

In May 2011, the Interprofessional Education Collaborative issued the “Core Competencies for Interprofessional Collaborative Practice.” The collaborative consists of the following members: Association of American Medical Colleges, American Association of Colleges of Osteopathic Medicine, American Association of Colleges of Nursing, Association of Schools of Public Health, American Dental Association, and the American Association of Colleges of Pharmacy. The collaborative utilized the definition for IPE from the World Health Organization, as included above. The competencies are organized under four competency domains:

1. Values/Ethics: Work with individuals from other professions to maintain a climate of mutual respect and shared values.

2. Roles/Responsibilities: Use the knowledge of one’s own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served.

3. Interprofessional Communication: Communicate with patients, families, communities, and other health professions in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease.

4. Teams and Teamwork: Apply relationship-building values and the principles of teamwork dynamics to perform effectively in different team roles to plan and deliver patient-/population-centered care that is safe, timely, efficient, effective, and equitable.

Each of the competency areas includes a number of outcome-based objectives.

There also have been IPE competencies created by individual institutions.

IPE in Accreditation

The Canadian Accreditation of Interprofessional Health Education Initiative (AIPHE) is funded by HealthCanada and includes representation from Canadian education associations representing
medicine, occupational therapy, nursing, social work, physiotherapy, and pharmacy, as well as accrediting bodies for medical schools (Committee on the Accreditation of Canadian Medical Schools) and graduate medical education (College of Family Physicians of Canada, Royal College of Physicians and Surgeons of Canada). The AIPHE has developed a set of accreditation standards and accompanying criteria that encompass the following areas:

- Organizational commitment to IPE;
- Faculty/organizational unit preparation and commitment;
- Student engagement in IPE;
- IPE in the educational program; and
- Resources to support IPE.

Standards deriving from the AIPHE initiative have been submitted to the Liaison Committee on Medical Education (LCME), the accrediting body for US medical education programs, for consideration. The LCME already has a standard touching on interprofessional communication: ED-19. The curriculum of a medical education program must include specific instruction in communication skills as they relate to physician responsibilities, including communication with patients and their families, colleagues, and other health professionals.

**IMPLEMENTING IPE**

*What is Needed for Successful IPE*

There is concern about the difficulty of implementing IPE programs due to such things as differing schedules across programs, “packed” curricula that do not permit addition of IPE experiences, and faculty and administrative resistance. A systematic review of the literature conducted in 2007 included a comprehensive bibliographic search of publications related to IPE that appeared between 1990 and 2003. The following are some general areas identified as needing attention to allow successful implementation of IPE:

- Resources such as time to develop and implement programs, funding support from internal or external sources, and management support were key in initiating and maintaining an IPE effort;
- Teacher characteristics, including role modeling of interprofessional collaboration;
- Learner issues, such as motivation, attention to stereotyping of other professions by learners, opportunities for informal learning (such as time for discussion during breaks), perceived relevance of the education;
- Coordination of schedules among the programs participating in the IPE sessions; and
- Curricular issues, including making the experience “count” through assessment and tailoring the experiences to the environment in which education is conducted (such as the specific clinical setting).

Recent examples of IPE programs also reflect some of these principles. In a review of three IPE initiatives, the authors note the following factors as “essential” to success:

- Support by administration, including commitment of resources;
- Committed experienced faculty;
- Acknowledgement of student effort through grades or other, certificates; and
- Infrastructure support to facilitate coordination or schedules and resources.
Another published report also points to the importance of administrative support at the highest level of the institution to support, encourage, and facilitate the collaboration among the individual schools and colleges.\(^9\)

**Outcomes of IPE**

Although the number of studies that credibly report outcomes of IPE programs is relatively small, in general the outcomes have been positive.\(^7\) For example, IPE has a positive effect on learners’ perceptions and attitudes toward other professions and team skills. There also have been some studies that document positive effects on the delivery of patient care, including such things as screening and illness prevention services, reduction in clinical errors, and patient satisfaction.

**AMA POLICY ON IPE**

AMA policy supports interprofessional education and partnerships as a priority for the American medical education system (Policy D-295.934, “Encouragement of Interprofessional Education Among Health Care Professions Students”). There also is support for ongoing collection of data on interprofessional education and for collaboration with other organizations to explore the possibility of developing pilot programs (D-295.976, “Education For Practice in Interprofessional Teams”) and accreditation standards for IPE (D-295.934).

**AMA PRINCIPLES FOR THE DELIVERY AND PAYMENT OF HEALTH CARE TEAMS**

The Council on Medical Education and the Council on Medical Service have collaborated to outline the practice of medicine and the roles and responsibilities of health care professionals working in interprofessional health care teams. CME-CMS Joint Report, I-12, provides background on the growing need for interprofessional team-based care, outlines the health professionals shortage and increasing demand for health care services, reviews quality and cost of health care, highlights key aspects of an interprofessional collaborative medical practice, identifies interprofessional education programs, summarizes relevant AMA policy and a new membership opportunity, discusses potential avenues for AMA advocacy and policy development, and provides recommendations on interprofessional health care teams including principles to guide physician leaders.

**SUMMARY AND RECOMMENDATIONS**

IPE is an important element in preparing physicians for practice in the evolving health care system. A number of practice models are emerging that could serve as sites for such education.

The Council on Medical Education recommends that the following recommendations be adopted and that the remainder of this report be filed:

1. That our American Medical Association (AMA) support the concept that medical education should prepare students for practice in physician-led interprofessional teams. (New HOD Policy)

2. That our AMA encourage health care organizations that engage in a collaborative care model to provide access to an appropriate mix of role models and learners. (Directive to Take Action)
3. That our AMA encourage the Liaison Committee on Medical Education, Commission on Osteopathic College Accreditation, American Osteopathic Association, and the Accreditation Council for Graduate Medical Education to facilitate the incorporation of physician-led interprofessional education into the educational programs for medical students and residents in ways that support high quality medical education and patient care. (Directive to Take Action)

4. That our AMA encourage the development of competencies skills for interprofessional education that are applicable to and appropriate for each group of learners. (Directive to Take Action)

Fiscal Note: Less than $500.
REFERENCES


2. AIPHE Interprofessional Health Education Accreditation Standards Guide. 2011.


7. Hammick M. Freeth D, Koppel I et al. A Best Evidence Systematic Review of Interprofessional Education. BEME Collaboration,
