

## A "healthy" workforce for the twenty first century

### Editorial

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Quality and quantity are inextricably linked, though distinctly separate, in all spheres of life, no less so in the health professions. Focusing on either without attention to the other is unlikely to solve the health problems of the future in the long term. The production of large numbers of poorly qualified health professionals would contribute little to health care, and may indeed be detrimental. On the other hand, inadequate numbers of well-qualified health professionals, however good they may be, would not adequately alleviate the health problems of society. It is obvious, therefore, that attention must be paid to both the quality and the quantity of health professionals if they are to meet the increasing health demands of the twenty first century.

This issue of the *Bulletin* includes an exhaustive and timely study by Al-Jarallah, et al to determine the projected needs of physicians, dentists and nurses for Kuwait.<sup>1,2</sup> The authors have quite rightly pointed out the need for determining the underlying causes of the shortages of each category in taking steps to correct the quantitative deficiencies in each of these professions. While such determinations and projections are undoubtedly essential in planning human resources for health, the need for ensuring the quality of those trained cannot be over-emphasized.

Readers of the *Bulletin* are undoubtedly aware of the many global initiatives that have taken place over the last decade to facilitate quality assurance in the training of physicians, at all levels in the continuum of medical education. The Indicators of Quality project of the World Health Organization,<sup>3</sup> the International Standards in Basic, Postgraduate and Continuing Medical Education project of the World Federation for Medical Education,<sup>4</sup> and the

Global Minimum Essential Requirements project of the Institute for International Medical Education (China Medical Board)<sup>5</sup> are three examples which have addressed the issue of quality in addition to quantity. While all three projects have been undertaken at a global level, each has pointed out the need for flexibility in adapting the products of the initiative to a given local context while meeting minimum global standards. However, improving the quality of training programs is by itself inadequate. The need for establishing links between education and practice is paramount if the ultimate purpose of each of these endeavors is to be met.

A practical approach to establishing this link through program evaluation, using a tracer concept for identifying priority problems in health practices across a country, was described by the writer and a colleague in 1993.<sup>6</sup> A limitation of that study was that the evaluation of the product of training was carried out well after their training was concluded. As a result the applicability of evaluation findings to existing training programs was assumed rather than established. Practical suggestions to strengthen the link between medical education and medical practice in ten areas, including student selection, aims and objectives, learning experiences, locus of learning, student assessment, research, administration, postgraduate education, continuing education and program evaluation, have been described in another paper published in 1996.<sup>7</sup>

Effective linking requires consideration of not only present health care needs, but also projected needs, as the products of current training programs would provide service well into the future. Prediction of trends in health care or in education for health care is a risky but essential undertaking. The spurt of activities in undergraduate medical education in the last quarter of the previous century, and in the first few years of this one, makes it likely that the future medical graduate will differ signifi-

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cantly from the present in many respects. Greater attention will be paid to the social concomitants of disease, to preventive and promotive care and to ambulatory and domiciliary care. Already the average length of hospital stay has been drastically reduced, and the medical student is only exposed to episodic care if training is confined to the tertiary care teaching hospital. Increased medical litigation mandates attention to medical ethics and legal medicine in training, while rapid advances in technology call for familiarity with newer tools of investigation, management, communication and learning. With increasing opportunities for mature-age students, the average student at admission to medical school will have wider life experiences and demand educational experiences which promote experiential and deep learning, rather than didactic methods.

While the basic medical sciences will continue to be the cornerstone of medical education, the futility of current trends to downplay them will soon become apparent, if not already so, and the pendulum will swing back to achieve an appropriate balance between these and the clinical sciences. The major problem facing curriculum planners in achieving a correct balance as well as integration between these two traditionally separate phases of the undergraduate curriculum is the dearth of medically qualified basic science faculty in today's medical school.

A survey to define quality in residency education found a diversity of opinion among respondents, but the clear emphasis was on process rather than outcome indicators.<sup>8</sup> Faculty stability, clinical skill, supervisory skill, commitment to teach, degree of evaluation with feedback and encouragement of life-long learning were identified as key indicators of quality. Barriers to quality training in the clinical sciences at both undergraduate and postgraduate levels are the lack of clear criteria for advancement in academic rank and of training opportunities for clinical educators who are hired to teach.

A recent initiative to facilitate futuristic thinking of academic medicine is the International Campaign to Revitalise Academic Medicine (ICRAM),<sup>9</sup> which borrows the future scenarios-building strategy pioneered by

the oil industry. Carefully constructed potential scenarios for academic medicine provide the basis for discussion, among a think-tank of, each possible future in relation to the present, leading to better decision making and strategic planning.

It is time to learn from the experiences of the past and plan for the future of education in the health professions at all stages of the continuum.

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