Five futures for academic medicine: the ICRAM scenarios

Jocalyn Clark and for the International Campaign to Revitalise Academic Medicine

BMJ 2005;331;101-104
doi:10.1136/bmj.331.7508.101

Five futures for academic medicine: the ICRAM scenarios

Jocalyn Clark for the International Campaign to Revitalise Academic Medicine

Although most people agree that academic medicine needs to reform, the nature of the changes is unclear. ICRAM hopes its five scenarios for the future will aid the debate

BMJ, London WC1H 9JR
Jocalyn Clark
associate editor
jclark@bmj.com

BMJ 2005;331:101–7

In 2003, the *BMJ* and 40 other partners launched the International Campaign to Revitalise Academic Medicine (ICRAM). Led by a core working party of medical academics representing 14 countries (box), the campaign aims to redefine the core values of and contribute to the evidence base for academic medicine; develop strategy around reformed academic training; and stimulate a public debate on the future. As part of this process ICRAM created a team to develop a vision for the future of academic medicine. This resulted in five future scenarios, which are summarised here. A fuller description is being published this week in the *Public Library of Science Medicine*.[1] The full report of the scenario building workshop, with full details, references, and background, is also being published simultaneously by the Milbank Memorial Fund.[2]

Composition of ICRAM

- A core working party of 20 medical academics representing 14 countries
- Stakeholder groups representing the areas of academia, business and industry, government and policy makers, journal editors, patients, professional associations, and students and trainees
- Regional groups covering the world
- A facilitating committee that helps plan and execute the ICRAM work

Academic medicine today

Academic medicine might be defined as the capacity of the healthcare system to think, study, research, discover, evaluate, teach, learn, and improve. As such, little could be more important—particularly as new discoveries in science offer tremendous opportunities and emergent diseases pose huge threats. Indeed, academic medicine has been responsible for enormous gains in human health and development over the past century. Yet currently there is persistent concern that something is not right with academic medicine.[3–13] At a time of increasing health burden, poverty, globalisation, and innovation, academic medicine seems to be failing to realise its potential and global social responsibility. It also seems to be becoming a less attractive career option.

ICRAM started with only two premises: it was necessary to think globally, and "more of the same" was not the answer. Reinvention was needed. This proved difficult. The members of the group often couldn't agree. They disagreed, for example, over the importance of business, particularly pharmaceutical companies, in academic medicine. Would business interests destroy or enhance academic medicine? Something was needed to break the deadlock, and we decided on scenario planning.

What are scenarios?

Scenarios are alternative ways of looking at the future. They can help test assumptions, recognise uncertainty, widen perspectives, resolve dilemmas and conflicts, deepen understanding, and explore strategic questions.[2] Pioneered by Shell in the early 1970s,[14] scenario planning has been used in a range of corporate, military, and non-profit company settings in both industrialised and non-industrialised countries.[14–18] Recently, UNAIDS, the joint United Nations programme on HIV and AIDS, generated three possible scenarios for how the AIDS epidemic in Africa could evolve over the next 20 years based on decisions taken today.[18]

Scenario building works by gathering together a team who consider the instabilities in the present and the drivers of the future and who then imagine plausible but different futures. The aim is not to predict the future, which is impossible, but to enable richer conversations by stretching thinking on what the future might bring. Once the scenarios have been created they can be used to think more deeply about the present and the future. They can also be used for the basis of better short term pragmatic decision making and long term strategic planning.

ICRAM scenarios

That academic medicine is in crisis around the world seems universally agreed, but the prognosis and treatment for academic medicine are much less clear. Although we might agree that some elements of the future are predetermined—they are the inevitable consequences of events that have already taken place—many uncertainties still exist.[1 2] Much of what

Members of the ICRAM working party are listed on bmj.com

determines the future of academic medicine is outside the control of medical academics. The world will change around them, and they will have to follow. But there will also be change that comes from within academic medicine.

The ICRAM working party, guided by facilitator Philip Hadridge, considered current global instabilities and future drivers of change and then created five scenarios of how academic medicine might look in 2025. In building scenarios, the group used a time span of 20 years, but some of the scenarios are more futuristic than others. The scenarios are summarised below and in the table.

Scenario 1: Academic Inc

In this scenario academic medicine flourished in the private sector. Slowly but surely the public sector around the world realised that it could not support the costs of academic medicine. Medical students had high earnings during a professional lifetime: why shouldn't they pay for their education? And if researchers were doing something valuable, shouldn't they be able to find a market for their product—accepting that sometimes payment would come from the public sector? During development medical schools became private, with many providing niche training; high fees and staff salaries were introduced alongside cutting edge facilities and technology. Intense competition resulted in pressure to reduce costs and improve quality.

Research took place in a range of private companies, but many training and research companies failed. Those that succeeded were responsive to customers' needs (governments, researchers, patients). Overall, efficiency and effectiveness of academic medicine improved, but equity suffered. A two tier system resulted, the 10:90 gap persisted, and the brain drain accelerated. Accountability to shareholders often reduced innovation.

Academic Inc

Scenario 2: Reformation

Concern increased about the gap between academic medicine and practice. Important research results were not being implemented, there was too much irrelevant research, students were bored, and practitioners stopped learning. The response was not to try to strengthen academic medicine but to abolish it and instead to bring the processes of teaching, learning, and researching into the mainstream of health care. This innovative—though not initially welcomed—response proved highly successful and was copied everywhere. A century of separation of academic medicine was ended. Professors disappeared. It was akin to the destruction of the monasteries and so became known as the reformation of academic medicine. The key features were:

- Education, research, and quality improvement took place in the practice setting

Summary of scenarios

	Academic Inc	Reformation	In the public eye	Global academic partnership	Fully engaged
Description	Academic medicine flourishes in the private sector	All teach, learn, research, and improve	Success comes from delighting patients, the public, and media	Academic medicine for global health equity	Academic medicine engages energetically with all stakeholders
Main features	Medical research, training, and service are commercial business activities	Academic medicine disappears Research and education integrated with health care	Extreme consumerism Patients govern academic medicine Continual use of media	Global cooperative networks devoted to redressing health inequalities and 10:90 gap	Strong connections among patients, policy makers, practitioners, and the public
Medical education	Private medical schools Major investment in information technology Some niche schools (care of elderly people, rural medicine, etc)	Teamwork Learning by doing Competency based assessment	Conducted by expert patients Responsiveness to patients is key value	Centred around improving global health Partnerships between medical schools in developed and developing countries	Medical training is energised and community based Students help drive the agenda
Research	Privatised, takes place in an array of different companies Responsive to the needs of customers	Research and quality improvement are simultaneous Translational research favoured	Patients determine priorities, through game shows or citizens' juries	Public health and basic science equally valued	Conducted by groups of diversely skilled individuals, including stakeholders
Decision making and governance	Corporate governance	Leadership provided by societies of practitioners and patients	Bottom up: patients in charge	Global governance made up of institutional networks, policy makers, politicians, and the public	Dynamic organisations of all stakeholders to guide academic medicine
Disadvantages	Efficiency and effectiveness trump equity Two tier system—brain drain and 10:90 gap preserved Innovation may suffer	Lacks stability because requires shared values Decision making could be slow Individuals sometimes could not shine	Advances in science and technology subject to fads and fashion Job insecurity among practitioners Little regulation of health information	Idealistic Requires enormous political will and global cooperation	Academic medicine may be perceived as "dumbed down" May lose elite status, originality, and independent thinking

Reformation

- A medical academic was no longer a jack of all trades (teacher, researcher, practitioner)
- A team approach was adopted, supported by advanced learning and communication technologies
- Teams comprised patients, multidisciplinary practitioners, students, and professional researchers
- Research questions arose in professional-patient interactions, and a national question answering service provided evidence based responses
- Leadership came from diverse specialist societies, which organised in an international academy that had influence on world leaders
- Medical students first learnt how to learn, then learnt by doing

Teamwork fostered learning, but because teams did not always hold shared values stability, consensus, and decision making were threatened. The emphasis on teams also made it hard for brilliant individuals to shine as leaders.

Scenario 3: In the public eye

Academic medicine was slow to recognise the rise of global media, "celebrity culture," and the use of public relations (or spin) to drive the political process, but once it did it responded dramatically. Whereas it had once been suspicious of the media and public appeal and rather patronising to patients, academic medicine realised that to succeed it must delight patients and the public and learn to use the media. The most successful academics became those who were responsive to patients and the public, capturing their imaginations, and appearing regularly on their television screens. Some medical academics became as well known as film and rock stars and were feted by politicians.

Academic institutions became dominated by citizens and patients, with the public relations department the most important. Grants and prizes were given on academic game and reality shows, and citizens' juries made decisions about research priorities and funding. Students received most of their training from expert patients.

The changes created great diversity in the form and size of institutions, and competition was intense for the best teachers and researchers. Academic institutions had strong links with consumer movements and local non-governmental organisations. However, academics were anxious about job security and their ability to succeed. Because scientific advances were shaped by popular appeal, they were subject to fads. In addition, there was little regulation of health information.

Scenario 4: Global academic partnership

The world began to find the growing gap between the rich and poor unacceptable. Concern was driven partly by the media and global travel bringing the plight of the poor in front of the eyes of the rich, but also driven by anxieties over global security. Terrorism was recognised to be fuelled by the obscene disparities between rich and poor. Global policy makers also understood that investment in health produced some of the richest returns in economic and social development. Health care was an essential not a bonus.

The primary concern of academic medicine became to improve global health. This global health focus offered academics intellectual stimulation and prestige. Academics championed human rights, economics, and the environment as key determinants of health, but basic science remained important because of emerging global diseases. As a result:

- The G8 governments signed an accord that prohibited recruitment of academic health professionals from developing countries
- Universities in the developed world committed 10% of faculty time to developing countries
- North-South and South-South academic partnerships and networks flourished
- The 10:90 gap narrowed rapidly

Nevertheless, the policy was idealistic and suffered because political will and global cooperation were often lacking.

Scenario 5: Fully engaged

Academic medicine realised that its relationships with its stakeholders were mostly poor. The public had little or no understanding of what academic medicine was or why it mattered. Its very name implied irrelevance to many. Patients often felt patronised by academics, and many practitioners—including doctors—were unconvinced of the value of academic medicine. Policy makers found that academics didn't understand their problems and that the studies they produced came too


In the public eye

Common features of all scenarios

- Academic medicine will have to put more effort into relating to its stakeholders—the public, patients, practitioners, politicians, and policy makers. New institutions may have to be developed that include all these groups
- Academic institutions will need to be more globally minded
- Teaching, researching, improving, leading, and providing service will continue to be important, but expecting individuals to be competent in them all will be increasingly impractical
- Teamwork will become more important, but it will also be necessary to allow individuals to shine and flourish
- Competition among academic institutions is likely to increase, and the competition will increasingly be international
- Academic institutions will need to become more business-like and more adept at using the media
- Teaching and learning will be increasingly important—not least because dissatisfied students may go elsewhere. Learning will be lifelong and will depend heavily on information technology
- It will be increasingly important to combine research, both basic and applied, with implementation and improvement
- The range of types of academic institutions is likely to become more diverse
- Academic medicine will need to be ever broader in its thinking and skill set, combining with and learning from other disciplines such as economics, law, ecology, and humanities
- Thinking about the future will become increasingly important for academic institutions but also increasingly difficult

late to be useful. Some leading academics did have good relationships with politicians, who recognised that biotechnology might be important in creating future wealth, but the public profile of academic medicine was both low and clouded.

Medical academics worried that they were misunderstood, underappreciated, and seen as irrelevant. The main goal became to engage fully with the stakeholders of academic medicine—patients, practitioners, policy makers, and the public:

- New organisations were created, and existing ones were reshaped, embracing openness
- The media was used to interact with the public
- Governance involved all stakeholders; sometimes the academy president was a prominent patient, journalist, or community leader
- Medical students drove medical education rather than simply being its consumers

Although medical academics diversified and intellectual silos were breached, critics worried about the dumbing down and popularisation of academic medicine. Academic medicine had to fight to remain truly original and independent.

Lessons from the scenarios

These scenarios are tools and not ends in themselves. None of them will come to exist as they are described here, but the future is likely to contain some elements from each of them. The ICRAM working party tried to identify common features in the scenarios to learn lessons for now (box). The hope is that other groups may find the scenarios useful in thinking about both the present and the future of academic medicine. The scenarios will need to be adapted to the particular social, economic, and political conditions of different regional and national settings. The working party seeks broader thinking rather than agreement. Critical feedback is welcomed. Please send your comments through *BMJ*'s rapid responses and participate in our online poll.

Contributors and sources: All members of ICRAM contributed to the scenarios report. JC wrote this summary.

Competing interests: JC is employed by the BMJ Publishing Group as the project manager of ICRAM.

1 Awasthi S, Beardmore J, Clark J, Hadridge P, Madani H, et al. Five futures for academic medicine. *PLoS Med* 2005;2(7):e207. http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0020207
2 International Campaign to Revitalise Academic Medicine. *The future of academic medicine: five scenarios to 2025*. New York: Milbank Memorial Fund, 2005. www.milbank.org/reports/0507FiveFutures/0507FiveFutures.html
3 Academic medicine: resuscitation in progress. *CMAJ* 2004;170:309.
4 Bhutta Z. Practising just medicine in an unjust world. *BMJ* 2003;327:1000-1.
5 Clark J, Tugwell P. Who cares about academic medicine? *BMJ* 2004;329:751-2.
6 Academy of Medical Sciences. *Clinical academic medicine in jeopardy: recommendations for change*. London: AMS, 2002. www.acmedsci.ac.uk/p_clinacad.pdf (accessed 18 May 2005).
7 Academy of Medical Sciences. *Strengthening clinical research*. London: AMS, 2003. www.acmedsci.ac.uk/p_scr.pdf (accessed 18 May 2005).
8 Forum on Academic Medicine. *Clinical academic medicine: the way forward*. London: Royal College of Physicians, 2004. www.rcplondon.ac.uk/pubs/books/clinacad/ClinAcadMed.pdf (accessed 18 May 2005).
9 Association of Academic Health Centers, Association of Canadian Medical Colleges, Nuffield Trust. *The challenge to academic medicine: leading or following*? London: Nuffield Trust, 2002. www.nuffieldtrust.org.uk/policy_themes/docs/academicchallenge1.pdf (accessed 18 May 2005).
10 Commonwealth Fund Task Force on Academic Heath Centers. *Envisioning the future of academic health centers*. New York: Commonwealth Fund, 2003. www.cmwf.org/usr_doc/ahc_envisioningfuture_600.pdf (accessed 18 May 2005).
11 Donaldson L. *On the state of the public health: annual report of the chief medical officer*. London: Department of Health, 2003:36-43. www.dh.gov.uk/assetRoot/04/08/68/11/04086811.pdf (accessed 21 Jun 2005).
12 Committee on the Roles of Academic Health Centers in the 21st Century. *Academic health centers: leading change in the 21st century*. Washington, DC: Institute of Medicine, 2003. www.iom.edu/Object.File/Master/13/779/0.pdf (accessed 18 May 2005).
13 American Association of Medical Colleges Ad Hoc Committee of Deans. *Educating doctors to provide high quality medical care: a vision for medical education in the United States*. Washington, DC: AAMC, 2004. https://services.aamc.org/Publications/showle.cfm?le=version27.pdf&prd_id=115&prv_id=130 (accessed 18 May 2005).
14 Davis G. *Scenarios as a tool for the 21st century*. Shell International, 2002. www.shell.com/static/royal-en/downloads/gd_scenarios_as_a_tool_12072002.pdf (accessed 16 Jun 2005).
15 Abbasi K, Butterfield M, Connor J, Delamothe T, Dutton S, Hadridge P, et al. Four futures for scientific and medical publishing. *BMJ* 2002;325:1472-5.
16 The Mont Fleur scenarios: what will South Africa be like in 2002? *Deeper News* 2000;7(1). www.arlingtoninstitute.org/future/Mont_Fleur.pdf (accessed 16 Jun 2005).
17 Wack P. Scenarios: uncharted waters ahead. *Harvard Business Rev* 1985 Sep-Oct:139-50.
18 UNAIDS. *AIDS in Africa: Three scenarios to 2025*. Geneva: UNAIDS, 2005. http://aidsscenarios.unaids.org/scenarios/ (accessed 16 Jun 2005).

Europe in transition

The *BMJ* of 23 July will be a theme issue exploring post-communist transitional Europe. The issue will focus on the medical problems of hundreds of millions of people living in central, eastern, and southeastern Europe.

Why is life expectancy at birth now lower in the transitional countries than in western Europe? What impact has political transition had on population health, healthcare reform, evidence based health care, and medical training?

At 4 pm local UK time on Thursday 28 July, join our one hour webchat on the topic. Go to http://quest.bmj.com/chat to register, read the rules of engagement, and suggest themes the webchat might explore.