



## *SETTING THE AGENDA FOR HEALTH AND MEDICAL RESEARCH: PRIORITIES AND ACCOUNTABILITY*

*["Viewpoints from a biomedical perspective"]*

### *Priorities in health and medical research*

- what are the unintended consequences of setting priorities?
- who sets the priorities?
- how are the priorities implemented?

### *Clinical and scientific accountability*

- why do we need it?
- who is demanding it?
- by what criteria can we judge performance?



## *Priorities in health and medical research* *Undesirable consequences*

- Focus on short-term goals and outcomes  
i.e., *current* perceptions of likely benefit to the community.  
It takes time to develop a viable research programme, and changes in direction occur slowly
- Research that is reactive rather than planned  
For most biomedical science, progress is incremental, unsuited for the short timeframe needed to achieve specific community goals
- Diversion away from investigator-driven research  
(= "*self-indulgent*", even "*greedy*") - yet this has underpinned most of the major medical advances this century
- Biasing of national research strengths
- Opens up the system to political dictation



## *Priorities in health and medical research*

*who sets them?*

- *Community at large*
  - "The community demands..."
  - No : the community doesn't really care
- *Government*
  - Ministers and their advisors do the demanding
  - Governments are elected to set national priorities
  - But are they good judges of scientific merit and priorities?
  - Risk that economic imperatives determine ministerial directives
  - The political outlook is usually determined by the election cycle, and announcements are timed to suit political expedience
- *Scientific community*
  - Falls into line, even enthusiastically, in order to retain some control over the process
  - It is difficult for a few scientific voices to represent the totality of science



## *Priorities in health and medical research*

*how are research priorities being implemented?*

*There are two quite different approaches*

### **ARC**

- Determined after consultation with scientific community
- Restricted to 4 defined highly technological national priorities, even though ARC covers research across all sciences and the humanities
- Based on the premise that we have or can have a national edge in these 4 areas (possibly only these 4 areas), and that we should bias investment towards them
- Allocation of 33% of the ARC budget to the 4 priorities
- Centres of Excellence and Foundation Fellowships are being aligned with the 4 priorities



## *Priorities in health and medical research*

*how are research priorities being implemented?*

### **NH&MRC**

- Determined by Council on advice from SRDC after consultation with scientific community
- Broad areas
- Based on assessment of public health needs, not the development of technological industries or the need to address topical research questions
- No specific budget allocation - applications need a slightly lower score to reach the cut-off for funding
- ? opposite approach to ARC

*However*, SRDC acts as a Committee focused largely on public health and epidemiological research, and its call for input was couched to favour these areas of research and to disfavour biomedical science

- The "cure" for many disabling diseases (e.g., Alzheimer's & HIV / AIDS) will come from biomedical research not a public health approach,
- The future of our emerging biotechnology industries is based on biomedical research



## *Clinical and scientific accountability*

### *Accountability in Clinical Care*

- Ethical behaviour
- Patient information
- Privacy of clinical information
- Standards of care
- Mechanisms to ensure continuing competence

### *Accountability in Scientific Research*

- Ethical issues:
  - Ethical behaviour (McBride and Hall incidents)
  - Use of animal and patients or healthy human subjects
- Accountability for society's investment:
  - Need to demonstrate a tangible gain for society
  - Need to have outcomes that are measurable



## *Clinical and scientific accountability*

- Increasing emphasis on regulation of medical training
  - Medical Faculties and training programmes of Specialist Colleges must undergo accreditation with AMC
  - After graduation, clinicians must now demonstrate maintenance of skills and professional standards

*[Paradoxically, there are calls on AMC to be more lenient in certification of overseas trained doctors: accredited 3426 doctors in 23 years, plus 543 specialists in 8.5 years; ~213/year]*
- Hospitals are accredited
  - [Unfortunately the ACHS process is based on procedural issues rather than healthcare outputs that reflect quality of care]*
- Participation in hospital-based Quality Assurance programmes and clinical audit is mandatory for Health Service personnel
  - [Unfortunately the proponents of "Quality" use a "new-speak" that does not endear a desirable process to clinicians]*
- Re-certification programmes run by Colleges - initially voluntary participation
  - But will become mandatory at least for procedural specialists following the UMP crisis*



## *Clinical and scientific accountability*

### *Driving forces behind clinical accountability:*

- Genuine Community pressure  
[Unlike the situation with the setting of priorities for research]
- Government motivated by financial issues: by need to curtail spiraling health care costs and its investment in baling out UMP
- Clinician appreciation that
  - The profession must be seen to demand high professional standards of its members
  - If the profession does not accept the responsibility and control the process, the Government will introduce something more onerous

### *However,*

- Self-regulation is of limited value when it could restrict one's earning capacity and standard of living, particularly when the affected professionals are influential and in a powerful group
- Effective regulation must involve Government or statutory authorities with clinical representation but not dominance



## *Measuring Research Productivity*

- Assessment of research productivity should be standard practice in Universities and Teaching Hospitals
- Based on implicit assumptions:
  - *the creation of knowledge is an integral component of the job description for academics*
  - *it is good management practice to measure performance*
  - *if we are good there should be objective evidence to show this - i.e., a place in the sun is not ours by birthright*
  - *productivity and scientific standing depend on a complex mix of many factors*



# Measuring Research Productivity

## *Personal*

- evidence of standing in the community
- impact on peers [*invitations to present work locally, nationally and internationally*]
- service to the research community [*reviewing, membership of committees, etc*]
- awards, prizes, honours

## *Success in obtaining External Research Grants*

- *research grants* (= ~47% DEST income)
  - peer-reviewed NCG grants
  - other grants, donations, bequest income

## *Research Outputs*

- publications
  - *journal papers, books, chapters, etc* (= ~10% DEST income)
  - presentations to learned societies [*local : national : international = 1 : 2 : 3*]
- patents
- *current student enrolments* (= ~10% DEST income)
- *student completions* (= ~33% DEST income)

## *Demonstrated Application of Research Outcomes*

- success with commercialization
- impact on clinical practice



# Measuring Research Productivity

## *Personal 10%*

- 0 = no impact (0%)
- 1 = local profile (3%)
- 2 = national profile (6%)
- 3 = high international profile (10%)

## *External Research Grants over last 3 years 25%*

- 0 = no funding
- 1 = intermittent funding (10%)
- 2 = continuous funding (20%)
- 3 = continuous high funding (25%)

## *P/G Research Student enrolments 10%*

- 0 = nil (over past 3 years)
- 1 = intermittent (5%)
- 2 = continuous (10%)

## *P/G student completions 25%*

- 0 = nil (over past 3 years)
- 1 = 1x Masters (10%)
- 2 = 2x Masters or 1x PhD (20%)
- 3 = >2x Masters or >1x PhD (25%)

## *Journal Papers, Books, Chapters, etc 20%*

own book = refereed papers x5  
book chapter = refereed paper

- 0 = no publications
- 1 = <1/year (5%)
- 2 = 1-3/year (10%)
- 3 = >3 &/or 1-2 international/yr (20%)

## *Presentations to Learned Societies 5%*

(local : national : international = 1 : 2 : 3)

- 0 = nil
- 1 = <1/year (1%)
- 2 = 1-3/year (3%)
- 3 = >3 &/or 1-2 international/yr (5%)

## *Current Patents 5%*

- 0 = nil
- 3 = 1 or more current patents

## *BONUSES 20%*

Successful commercialisation 20% *or*  
Demonstrated clinical application 20%