

What Difference Does (“Good”) HRM Make?

The importance of the human resources management (HRM) to the success or failure of health sector reform has, until recently, been generally overlooked. Health sector reform in many countries in the 1990’s focused on structural change, cost containment, the introduction of market mechanisms and consumer choice [1] [2] but with little direct attempt to address HR aspects.

In recent years it has been increasingly recognised that getting HR policy and management “right” has to be at the core of any sustainable solution to health system performance [3] [4] This is partly a result of the need to upscale capacity in many country health systems to meet the Millenium Development Goals. A well motivated, appropriately skilled and deployed workforce is critical to the success of health system delivery. The actual methods used to manage human resources in health care may in themselves be a major constraint or facilitator in achieving the objectives of health sector reform [5] [6].

In comparison to the evidence base on health care reform related issues of health system finance and appropriate purchaser/provider incentive structures, there is very limited information on the HRM dimension, or if its impact [7].

There is a limited, but growing, evidence base on the impact of HRM on organisational performance in other sectors, but there have been relatively few attempts to assess the implications of this evidence for the health sector. This paper examines this broader evidence base on HRM in other sectors and examines some of the underlying issues related to “good” HRM in the health sector.

2. “Good Practice” in Human Resource Management

In order to place the evidence base on HRM in health care in context this section considers how “good practice” in human resource management (HRM) has been defined and evaluated in other sectors. Essentially there are two sub themes- how have HRM interventions been defined, and how have the effects of these interventions been measured in order to identify which interventions are most effective- in other words, what is “good” HRM?

A review of English language publications highlights that there is a growing evidence base on these issues. Much of it focuses on organisational level studies using large data set analysis to examine the relationship between HR interventions and measures of organisational performance and output, where the latter are defined in terms of private sector “business” success- profits, returns on sales etc. As well as single study publications, there have also been some published reviews. These reviews are discussed first.

One recent multi sector review of research on the relationship between HRM and organisational performance reported that “more than 30 studies carried out in the UK and US since the early 1990s leave no room to doubt that there is a correlation between people management and business performance, that the relationship is positive, and that it is cumulative: the more and the more effective the practices, the better the result”^[8](see also ^[9]).

A similar, if more qualified finding had been reported by Richardson and Thompson^[10] who had noted “There are in the region of 30 empirical studies that have sought to address the relationship between HR practices and business performance ... The published research generally reports positive statistical relationships between the greater adoption of HR practices and business performance” ^[11].

The key lesson from these reviews is that investment in developing and maintaining effective HRM policy and practice can make a significant and measurable positive contribution to organisational performance (see also ^[12].)A more detailed examination of some of the key texts in this area gives some general support for this view, but also pinpoints some of the limitations, particularly if the results are to be considered from a health systems perspective.

One sector specific issue has to be remembered when looking at the implications of the current evidence base for HRM practice in the health care sector. Almost all the mainstream general research on HRM and organisational performance assessed in the reviews highlighted above focuses on private sector business. Much of it relies on measures of organisational performance (e.g profits; returns on sales) which cannot readily be applied to a public sector health system.

Richardson and Thompson [¹³] noted that there were three broad perspectives on the ways that HR practice contribute to business performance:

- i) “Best Practice” – a set of HR practices can be identified, which, when implemented, will improve business performance.
- ii) “Contingency” – business performance will be improved when the best “fit” between business strategy and HR practices is achieved.
- iii). “Bundles” – specific bundles of HR practices can be identified which will generate higher performance in organisations; the most effective composition of these “bundles” will vary in different organisational contexts [see also ¹⁴].

This latter point is significant because it highlights that there is no “magic bullet” in HRM- no single intervention is likely to provide a sustainable solution to all the workforce challenges facing an organisation.

Richardson and Thompson [¹⁶] summarised six key points from their review of the literature:-

- i) The claims that there is a universal best practice HR strategy “are premature”.
- ii) Adopting a specified set of HR policies will not in itself lead to organisational success.
- .iii). The same “bundle” of HR policies may not be universally applicable;

- iv) Virtually all current statistical analysis of HR strategies is based on “adding up a mixture of items from a somewhat arbitrary list of HR policies and practices”.
- v) More evaluation attention need to be devoted to examining the intermediary steps between the two end points of HR strategy and organisational performance.
- vi) “How something is done is often more important than what is done” - but existing empirical studies concentrate on the latter.

With these cautionary notes in mind, the remainder of this section highlights the more influential studies on HRM and organisational performance from which Richardson and Thompson, and Caulkin, drew in reaching their conclusions..

One of the most quoted groups of studies are those by Pfeffer [¹⁵][¹⁶]. He has identified seven characteristics which he identifies as the core practices that “characterise most if not all systems producing profits through people”. These seven characteristics are:

- an emphasis on providing employment security;
- the use of self managed teams
- decentralisation of decision making; and extensive training
- selective hiring of new personnel
- reduced status distinctions and barriers
- extensive provision of training
- compensation linked to performance

Source: Pfeffer [¹⁷]

Pfeffer drew on previous research, notably that by Huselid [¹⁸] in developing and testing his seven point plan for HRM intervention. Huselid had concentrated on three aspects of the measurement of the links between HRM practice and firm performance – staff turnover, organisational productivity and corporate financial performance. He had developed a list of

thirteen “High Performance Work Characteristics” . These included: formal information sharing; formal job analysis; staff participation in Quality of Work Life (QWL) programmes; workforce receives formal performance appraisal; and promotion based on merit.

Huselid tested the hypothesis that these thirteen “High Performance Work Characteristics” would reduce staff turnover, increase productivity and improve corporate financial performance. Based on an analysis of data from 968 US companies he reported that the implementation of the “High Performance Work Practices” led to “better firm performance” – a relative 7% decrease in staff turnover, \$27,000 more sales per employee, \$18,600 per employee increase in market value, and \$3,800 per employee more in profits.

Whilst the work of Pfeffer, Huselid and others may be persuasive, Robinson and Thompson [¹⁹], Guest [²⁰] and others have questioned the basis of some of the “universal” claims made about the connection between HRM strategy and organisational performance. They report that they are not convinced by the idea that there is general prescription of HRM interventions that can be applied in any organisation irrespective of context and priorities, with the likelihood of a similar level of response and results. Guest [²¹] stresses that the examination of HRM and organisational performance remains a “young field of research” and sets out a range of methodological challenges which remain to be resolved, in terms of the measurement of HRM, the measurement of performance and the measurement of the relationship between the two (p.1095). He does however conclude that “results from both cross sectional and longitudinal research remains robustly positive” (p.1104).

Recent research [²²] has also highlighted a so called “prime building block” of HRM- the principle of “A.M.O.” . There must be sufficient employees with the necessary ABILITY (skills, knowledge and experience) to do the job; there must be adequate MOTIVATION for

them to apply their abilities, and there must be the OPPORTUNITY for them to engage in “discretionary behaviour”- to make choices about how their job is done. The authors suggest that organisations wishing to maximize the contribution of their workforce need to have workable policies in these three broad areas.

The message from the key research on HRM and organisational performance is that the evidence base, although relatively “young” and limited, does provide general support that good practice HRM (defined and measured by different sets of indicators in different studies) can make a positive difference to the performance of the organization.. The indicators used to identify and measure organisational performance are either “proxy” measures, such as staff turnover or absence (the inference being that lower turnover, for example, will lead to improved performance), or measures of activity or financial performance. These studies examine a range of different sectors, but have focused mainly on the private sector manufacturing, finance and service industries. What are the lessons and implications of this limited but growing evidence base for the health sector?

“Good” HRM in the health sector

HRM in health has to function in a sector with some unique characteristics. The workforce is large, diverse, and comprises separate occupations often represented by powerful professional association or trade union. The avowed first loyalty of physicians and nurses tends to be to their profession and their patients rather than to their employer. In most countries, access to health professional training and employment is controlled by standards and entry requirements determined by the professions, and aspects of their work is regulated. The health sector is a major recipient of public and/ or private expenditure, and healthcare delivery is a politicised process. Whilst many health systems have been attempting to decentralise to improve efficiency,

they tend to have a broad range of active stakeholders, a high level of direct and indirect governmental and regulatory intervention, and recurrent “top down” attempts at reform. Health is also very labour intensive- the proportion of total spend on staff is much higher in health than in most manufacturing industries, and many service industries.

The irony is that, whilst HR is under-researched in health, partly because of its unique context, the main “business” of health- clinical interventions – is the subject of continuous and detailed research based scrutiny. No other sector has the same level of self critical focus, with the use of sophisticated methods such as randomised control trials (RCTs) , systematic reviews and meta-analysis.

Research on human resources in health, as in any sector, is drawn from a broad range of disciplines, (e.g. economics, econometrics, occupational psychology, sociology). Some of these disciplines are not open to the use of the types of methods favoured in clinical research in health care . The challenge for researchers attempting to build the evidence base on HRM in the health sector is that they have to draw on these non clinical research methods to assess the HRM “inputs” whilst attempting to identify appropriate and sector specific measures of process, output or outcome.

There have been a few attempts to examine “high performance” HRM characteristics in the health sector. These tend to be based in North America, which may be partly at least a reflection of the greater focus on “business” practice in private sector health care industries in the USA and Canada.

Eaton [²³] examined issues related to “high performance” HRM in twenty nursing homes in the USA. She reported that quality outcomes at some of the homes improved after reorganisation

which included implementation of a new model of HRM based on job enlargement and cross training, but concluded that the “business” focus of the “high performance model” made it inappropriate for the health care sector. Rondeau and Wagner [²⁴] examined the impact of HRM practices and the contingency theory on 283 Canadian nursing homes. They reported that the “best performing” nursing homes (as measured by indicators of client and staff satisfaction, operating efficiency and revenue) were found to be more likely to have implemented “progressive/high performance” HRM practices and to have a workplace climate that strongly values employee participation.

Studies which can access “business” performance data in health are few in number. There is a broader and deeper evidence base which focuses on health sector specific measures of process, activity or outcome, and attempts to link these to HRM interventions.

One area where there has been a significant growth in research has been large scale studies examining links between staffing levels, mix and outcome in the last two years. Whilst not directly addressing specific HRM interventions these studies make two contributions- they add to our understanding of the linkages between staffing and outcomes, and they also provide a test bed for identifying and assessing the appropriateness of outcome indicators in relation to staffing. Recent studies include:

- an examination of staffing and outcomes (fall rates, nosocomial pressure ulcers, urinary tract infections and patient satisfaction scores) in 29 university hospitals²⁵;
- a study of nurse staffing, organisation and quality of care in 303 hospitals in the USA, Canada, England, Scotland and Germany²⁶;

- a study of staffing levels, mix and outcome indicators (patient length of stay; UTI, pneumonia etc) in 799 hospitals in 11 U.S. States²⁷ ;
- an examination of nurse staffing, patient mortality rates, and failure to rescue (FTR) in 168 hospitals in Pennsylvania²⁸ ,
- an examination of mortality rates, patient length of stay, cost of care in relation to pharmacy staffing in approx. 1000 US hospitals²⁹;
- a study of nurse staffing levels and mix (RN, LPN and assistant) in relation to the prevalence and severity of decubitus ulcers in the US³⁰;
- a study of nurse staffing, skill mix and outcome indicators (30 day mortality, stroke, pneumonia etc) in 75 acute care hospitals in Canada³¹ ,
- an examination of staffing levels, workload and risk adjusted outcomes (e.g mortality, cerebral damage) in 186 neonatal intensive care units in the UK³² ,
- a study of nurse staffing and post-surgical events (e.g venous thrombosis, embolism, UTI etc.) in hospitals in six U.S. states³³ ,
- and a study of nurse staffing and needlestick injuries in 20 US hospitals³⁴ .

Most of these studies have reported that higher staffing levels and/or staffing mix are related to “better” outcomes, however defined – either to reductions in the levels of specified “negative” outcomes (such as mortality rates, needlestick injuries, or infections) or improvements in reported quality of care or patient satisfaction.

Whilst most of these studies are “one-off” examinations, there is one series of loosely linked studies in the USA, which has investigated the so called “magnet hospitals”.. These are institutions which have been identified as being successful in recruiting, retaining and motivating nursing staff. Research on magnet institutions has been underway for over twenty

years, and has highlighted positive links between good human resource practice, staffing characteristics and outcomes of care.

The genesis of the research on magnet hospitals was the policy study published in 1983 [³⁵]. The study identified the organisational characteristics of hospitals that “serve as magnets for professional nurses: that is, they are able to attract and retain a staff of well qualified nurses and are therefore consistently able to provide quality care” . The term ‘magnet’ was used to highlight the staff attraction/retention characteristics of these institutions.

The key characteristics of magnet hospitals, as identified in this first report, included participatory and supportive management style, decentralised organisational structure, clinical career opportunities, planned orientation of staff, and an emphasis on in-service/ continuing education.

The report stimulated other researchers to focus on organisational attributes, HR practices and measures of HR “success”. There has since been a series of research studies on aspects of “magnetism”. These have included studies reporting that nurse turnover and vacancy rates in the magnet hospitals were significantly lower, and reported nurse job satisfaction higher, than in the comparator hospitals [³⁶] and a study examining mortality rates in 39 magnet hospitals and 195 control hospitals using multivariate matched sampling to control for hospital characteristics. The study found that magnet hospitals had a 4.6% lower mortality rate for Medicare patients than the control hospitals [³⁷] .

Magnet hospitals are accredited by the American Nurses Credentialing Center (ANCC). There are over 100 magnet institutions in the US, and the first has recently been accredited in the UK³⁸. The ANCC has summarized the evidence base on magnet institutions (see Table 1)

The evidence base on “magnet” organisations has grown and broadened over the two decades since the original study. The main message from the various studies is that “magnetism” does appear to be related to “better” staffing indicators, and to improved quality of care. This has been attributed by Aiken et al and others to the sustained implementation of a “bundle” of HRM interventions which fit with organisational priorities and which support autonomous working by nurses, enable participation in decision making, facilitate career development and enable high level skills to be deployed effectively.

What health sector related indicators can be used to assess the impact of HRM interventions? Table 2 sets out a range of data which have been used as indicators in the health sector, when staffing have been the primary focus of attention. This is only an illustrative list, in particular, a wide range of clinical outcome indicators have been considered, or used- for a more detailed examination see Needleman et al [³⁹]. There are also a range of staffing: process/ output/outcome indicators summarised in a “basket of indicators” in Hornby and Forte [⁴⁰].

Some of the indicators, particularly the clinical indicators, are only likely to be routinely reported in health systems with a relatively sophisticated information infrastructure. And some of the indicators (eg patient length of stay) may be proxy measures for costs. It should also be noted that there is some evidence that not all the outcome specific indicators in final section of Table 2 are universally applicable. The large scale study of nurse staffing and outcomes in the US [⁴¹] considered and rejected some indicators and reported that some outcomes indicators are more sensitive than others in particular types of care delivery.

Conclusions

It is clear that it is not only the organisational context that differentiates the health sector from many other sectors, in terms of HRM. Many of the measures of organisational performance are also unique. As noted in the previous section, “performance” in the health sector can only be fully assessed using indicators which are sector specific. These can focus on measures of clinical activity or workload (e.g. staff per occupied bed; or patient acuity measures), on measures of output (e.g. number of patients treated) or, less frequently on measures of outcome (e.g. mortality rates; rate of post surgery complications).

The other main lessons from the evidence base examined in this paper are the notion of “contingency”-that there has to be a “fit” between the HRM approach and the organisational characteristics, context and priorities; and the recognition that so-called “bundles” of linked and co-ordinated HRM interventions will be more likely to achieve sustained improvements in organisational performance than single or unco-ordinated interventions. In the often “politicized” health sector this is an important message.

Finally it should be noted that defining the “best practice” evidence base is one thing, but translating this into widespread application of the appropriate bundle of HRM interventions is another. Both Richardson and Thompson [42] and Guest [43] highlighted the issue of the relative lack of “take up” of HRM good practice- even when it has been verified by the studies quoted above it is not evident in day to day practice in many organisations. This highlights an important issue for any sector wishing to improve HRM practice. It is as important to determine how best to promote and disseminate good practice in HRM as it is to identify and evaluate it.

Table 1: Reported characteristics of organisations with Magnet accreditation:

reduced Medicare mortality and morbidity rates

reduced mortality rates associated with the care of patients admitted to acute care settings with AIDS

increased levels of patient satisfaction

significantly lower rates of nurse burnout

reduced needlestick injury rates among nurses

significantly higher educational preparation of the registered nurse workforce

high levels of nurse autonomy and nurse control over practice

positive relationships with physicians

nurses' perception that they have adequate support services and enough RNs to provide high quality care

have a powerful and influential nurse administrator

nurses in magnet facilities perceive that their contributions are greatly appreciated

decreased likelihood of feeling burned out, emotionally drained or frustrated with their work

decreased likelihood of nurse reporting they are dissatisfied

Source: ANCC [44]

Table 2: Examples of HR/ staffing related indicators

“Activity” / Process Related	Beds Occupied Beds Outpatient Visits Client Contacts
Staffing Related	Job Satisfaction (measured by attitudinal survey instrument) Accidents/Injuries Absence Assaults on Staff Vacancy Rates Overtime Use of Temporary Staff
Care Related (Output/ Outcome)	Patient Length of Stay Readmission Rates Live Births Mortality Rates Urinary Tract Infections Pneumonia Shock Upper Gastrointestinal Bleeding Deep Vein Thrombosis Pressure Sores/Ulcers Cross Infections Patient Satisfaction Survey

Source: Buchan ⁴⁵

REFERENCES

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- ¹ Mills A .Improving the Efficiency of the Public Sector Health Services in Developing Countries: Bureaucratic versus Market Approache. 1995. PHP Departmental Publication no.17, London School of Tropical Medicine: London.
 - 2 Cassels A. Health Sector Reform: Key Issues in Developing Countries.1995. Journal of International Development, 7 (3): 329-347
 - 3 Dussault G, Dubois C Human Resources for health policies: a critical component in health policies. Human Resources for Health 2003 1(1)
 - 4 Diallo K, Zurn P, Gupta N, Dal Poz M. Monitoring and evaluation of human resources for health: an international perspective. Human Resources for Health 3002, 1: 3
 - 5 Martinez J, Martineau T . Human Resources in Healthcare Reform: A Review of Current Issues. 1998. Health Policy and Planning 13 (4) 345-358
 - 6 Buchan, J, Health Sector Reform and Human Resources: Lessons from the United Kingdom. Health Policy and Planning 2000, 15, 319-325
 - 7 Van Lerberghe W, Adams O, Ferrinho P. Human Resources Impact Assessment. Bulletin of the World Health Organisation, 2002, 80 (7), 525
 - 8 Chartered Institute of Personnel and Development, The Change Agenda: People Management and Business Performance, CIPD, London
 - 9 Caulkin S (2001), The Time is Now, People Management 30 August, 2001, 32-34
 - 10 Richardson R, Thompson M , The Impact of People Management Practices on Business Performance: A Literature Review, Institute of Personnel and Development, 1999
 - 11 Richardson R, Thompson M , The Impact of People Management Practices on Business Performance: A Literature Review, Institute of Personnel and Development, 1999
 - 12 West M, Patterson M, The Impact of People Management Practices on business performance, IPD Research Paper 22, Institute of Personnel and Development, London
 - 13 Richardson R, Thompson M , The Impact of People Management Practices on Business Performance: A Literature Review, Institute of Personnel and Development, 1999
 - 14 MacDuffie J, Human Resource bundles and manufacturing performance: organisational logic and flexible production systems in the world auto industry, Industrial and Labour Relations Review, 1995, 48 (2), 197-221
 - 16 Richardson R, Thompson M , The Impact of People Management Practices on Business Performance: A Literature Review, Institute of Personnel and Development, 1999
 - 15 Pfeffer J, Competitive Advantage through People. Harvard Business School, Boston. 1994
 - 16 Pfeffer J, The Human Equation: building profits by putting people first. Harvard Business School , 1998
 - 17 Pfeffer J, The Human Equation: building profits by putting people first. Harvard Business School, 1998
 - 18 Huselid M, The Impact of Human Resource Management Practices on Turnover, Productivity and Corporate Financial Performance, Academy of Management Journal , 38 (3), 635-672
 - 19 Richardson R, Thompson M , The Impact of People Management Practices on Business Performance: A Literature Review, Institute of Personnel and Development, 1999
 - 20 Guest D, Personnel's Paradox, People Management 2001, 25-29
 - 21 Guest D, Personnel's Paradox, People Management 2001, 25-29
 - 22 Unlocking the black box: understanding the HR performance link
 - 23 Eaton Beyond unloving care: linking human resource management and patient care quality in nursing homes. International Journal of Human Resource Management 11(3) 591-616 2000
 - 24 Rondeau K, Wagar T, Impact of human resource management practices on nursing home performance, Health Services Management Research 14, 2001, 192

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- 25 Sovie M, Jawad A. Hospital restructuring and its impact on outcomes. *Journal of Nursing Administration* ,2001, 31 (12) 588-600.
- 26 Aiken L, Clarke S, Sloane D) Hospital staffing, organisation, and quality of care: cross national findings. *International Journal for Quality in Health Care*.2002. 14 (1) 5-13.
- 27 Needleman J., Buerhaus P., Mattke S., Stewart M., Zelevinsky K. Nurse-Staffing Levels and the Quality of Care in Hospitals. *New England Journal of Medicine* . 2002.; 346:1715-1722, May 30.
- 28 Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *Journal of the American Medical Association*, 2002, 288(16),1987-1993.
- 29 Bond C, Raehl, C, Franke T. Interrelationships amongst mortality rates, drug costs, total cost of care and length of stay in United States hospitals: summary and recommendations for clinical pharmacy services and staffing. *Pharmacotherapy*. 2002. 21 (2) 129-141.
- 30 Hendrix T, Foreman S. Optimal long term care nurse staffing levels. *Nursing Economics* 2001.19 (4) 164-175.
- 31 Tourangeau, A, Giovanetti , P, Tu, J, Wood, M. Nursing related determinants of 30 day mortality for hospitalized patients. *Canadian Journal of Nursing Research*. 2002.33 (4) 71-88.
- 32 Ticker J. Patient volume, staffing and workload in relation to risk-adjusted outcomes in a random stratified sample of UK neonatal intensive care units: a prospective evaluation. *The Lancet*,2002, 359 (9301),99-107.
- 33 Kovner, C, Jones, C, Zhan, C, Gergen, P, Basu, J..Nurse staffing and post surgical adverse events: An Analysis of administrative data from a sample of US hospitals 1990-1996. *Health Services Research* , 2002, 27 (3) 611-629.
- 34 Clarke, S, Sloane, D, Aiken, L.Effects of hospital staffing and organisational climate on needstick injuries. *American Journal of Public Health*. 2002. 92 (7) 1115-1119.
- 35 McClure m, Poulin M, Sovie, Magnet Hospitals: Attraction Retention of Professional Nurses, Kansas City
- 36 Kramer M, Schmalenberg C, Job Satisfaction and retention. *Insights for the 1990's Nursing '91*, 3, 50-55; and *Nursing '91*, 3, 51-55
- 37 Aiken L et al Lower Medicare Mortality Among a Set of Hospitals Known for Good Nursing Care. *Medical Care*; 32, 8:771-787.
- 38 Buchan J, Ball J, Rafferty A. A Lasting Attraction? The Magnet Accreditation of Rochdale Infirmary. *London School of Hygiene and Tropical Medicine*, 2004 .
<http://www.lshhtm.ac.uk/hsru/staff/PDFs/Rochdale.pdf>
- 39 Needleman J., Buerhaus P., Mattke S., Stewart M., Zelevinsky K. (2002). Nurse-Staffing Levels and the Patient Outcomes in Hospitals. US Department of Health and Human Services, Health Resources and Service Administration. Washington DC,February
- 40 Hornby, P, Forte, P. Guidelines for introducing Human Resource Indicators to Monitor Health Service Performance. 2002. Centre for Health Planning and Management, Keele University, England.
- 41 Needleman J., Buerhaus P., Mattke S., Stewart M., Zelevinsky K. (2002). Nurse-Staffing Levels and the Patient Outcomes in Hospitals. US Department of Health and Human Services, Health Resources and Service Administration. Washington DC,February
- 42 Richardson R, Thompson M , The Impact of People Management Practices on Business Performance: A Literature Review, Institute of Personnel and Development, 1999
- 43 Guest D, Personnel's Paradox, *People Management* 2001, 25-29
- 44 ANCC Magnet Nursing Service Recognition Program. *Health Care Organisations Instructions and Application Profess Manual 2000-2001*. ANCC, Washington DC, USA
- 45 Buchan J Staffing and Skill Mix: Indicators of effectiveness? WHO, Geneva, (unpublished).