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Adler Museum Bulletin

Adler Museum of Medicine
Faculty of Health Sciences
University of the Witwatersrand, Johannesburg

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The Adler Museum of Medicine was founded in 1962 and was situated in the grounds of the South African Institute for Medical Research, Johannesburg. It is now housed at the University of the Witwatersrand's Medical School Campus in Parktown, Johannesburg.

In June 1974 the Museum's co-founders, Drs Cyril and Esther Adler, presented the Museum to the University of the Witwatersrand which named it the Adler Museum as a token of the esteem in which the founders were held by the University. In addition, the University bestowed the degree of Doctor of Laws (*honoris causa*) upon Dr Adler and the degree of Doctor of Philosophy (*honoris causa*) upon Mrs Esther Adler. Until Esther Adler's death in 1982 she was the Museum's Honorary Curator while Cyril Adler acted as Honorary Director of the Museum. From 1982 Dr Cyril Adler was appointed by the University as Director/Curator of the Adler Museum, a post he held until his death in 1988.

1975 saw the inception of the *Adler Museum Bulletin*, the brainchild of Mrs Rose Meltzer. Mrs Meltzer produced the first edition single-handedly and she continued to edit it until her retirement in 1991 and was editorial consultant until her death in 1992.

The Museum contains interesting and invaluable collections depicting the history of medicine, dentistry, optometry and pharmacy through the ages. Items of medical historical interest on display include microscopes and other scientific instruments, early bleeding and cupping equipment with an exquisitely crafted incision knife, ceramic pharmacy jars dating back to the 17th century, a collection of bone china and ceramic feeding cups, some dating from the 18th and 19th centuries, an early 19th century wooden handled amputation set in a wooden case, diagnostic and surgical instruments, treatment apparatus such as one advertised as 'Patent magnetic electrical machine for nervous diseases' used by Queen Victoria to ease her rheumatism (19th century) and the first electrocardiograph machine (1917) used in the Johannesburg General Hospital, the original artificial kidney machine used in South Africa, early anaesthetic apparatus, ear trumpets and brass ear syringes (early 20th century), hospital and nursing equipment and medical ephemera.

There are reconstructions of an African herb shop, a patient consulting a *sangoma* (traditional healer), and a 20th century Johannesburg pharmacy, a doctor's consulting room, a dental surgery, an operating theatre and an optometry display of the same period. A history of scientific medicine is augmented with displays of several alternative modalities. Other attractions range from a reconstruction of a patient being treated by the famous Persian physician Avicenna to an exhibition of early electro-medical equipment, and a collection of rare iron lungs.

A showcase containing new acquisitions to the collection is constantly changed as donations are received. The objects displayed provide an insight into the range and diversity of the collection.

In the foyer outside the Museum are panels relating to the history of the Cradle of Humankind (Sterkfontein and environs) and a display of replicas from the site give visitors a fascinating glimpse into this world heritage site.

The Museum has a rare book collection and a significant history of health sciences reference library. An archive arranged by subject matter is housed in the library. Biographical information relating to thousands of medical and allied health professionals is available for research purposes which includes photographs, notebooks, academic certificates, records, personal papers and memorabilia of prominent health professionals and academics.

The Museum arranges public lectures, tours, temporary exhibitions and provides excellent facilities for health sciences historical teaching and research.

Application forms for membership of the Adler Museum of Medicine can be obtained from the Curator, Adler Museum of Medicine, 7 York Road, Parktown, 2193. Telephone and fax: (+11) 717 2081.

Visit the Museum on the Internet: www.http://health.wits.ac.za/adlermuseum

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Adler Museum of Medicine

Faculty of Health Sciences

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The Board of the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, has appointed the following members to serve on the Board of Control:

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ADLER MUSEUM BULLETIN

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Editorial

Going backwards to make progress

Professor JCA Davies

The annual AJ Orenstein lecture was delivered by Professor Karl von Holdt, the Director of the Society, Work and Development Institute at Wits, known to many as SWOP. In it he described the outcome of a research study to clarify some of the reasons why large hospitals in this country are so difficult to manage, and suggested some steps to change things for the better. ER Schumacher proposed that *Small is Beautiful* and consequently increasing size brought with it problems proportionate to the increase in size. Professor Thomas McKeown, discussing *Medicine in Modern Society*, suggested that a hospital with more than 600 beds would prove to be unmanageable. Faced with the enormous burden of disease resting on South Africa's people it should not surprise anyone to find that in many of our hospitals, large, medium and small, the situation is more like the gallop of desperation than the measured stride of expertise.

Fifty odd years ago the situation in the hospital in Gweru, a small town in the Midlands Province of Zimbabwe, was approaching crisis point – beds pushed closer together than was officially allowed, mattresses on the floor and under the beds, more than one child to a cot, stressed staff and all that goes with this situation. This picture is not unlike the word pictures painted by the media from time to time as yet another crisis erupts in one of South Africa's hospitals. The first shattering discovery in Gweru Hospital, when we began to study the details of our problem, was that the reason why the medical wards were congested was that the majority of admissions were re-admissions. Why? In the main they were individuals with chronic non-communicable diseases who for any number of reasons had stopped taking their maintenance medication – recurrent status asthmaticus or epilepticus, diabetic coma, stroke in uncontrolled hypertension, recurrent congestive cardiac failure, relapse of psychiatric disease and many others. The solution, derived from the communicable disease register established to ensure continuity of treatment for pulmonary tuberculosis and later extended to embrace leprosy and, in the deep rural areas, chronic non-communicable diseases, produced a startling result. The discussion, interventions and outcomes are recorded in two simple, perhaps naïve, papers in the *Central African Journal of Medicine* entitled '*New thoughts for old'* and *'Initial experience with an endemic disease register'*.

It may be rash to extrapolate from a small district hospital to a complex tertiary institution like Chris Hani Baragwanath, but our past experience in Gweru has distinct parallels in the account of the attempt to pilot a change strategy in Soweto. Decongesting the wards yields immense benefits for both patients and staff and suddenly there is time and space to do things that had been planned but neglected. The fact that the process of reform was managed by a clinician was the key to success in CHBH as it was in Gweru. My favourite quote from the CHBH study is that of a busy nurse leaving an overloaded and short staffed ward to climb to the fourth floor of the administration building to collect a pay slip. In small hospitals there is no great distance between clinical departments and offices, and the hospital is run by the medical superintendent, the matron and the hospital secretary.

There is good evidence that we are embarking on a serious attempt to improve the health service, and introduce universal health insurance in the interests of patients and health professionals – but with no guarantee of success and considerably less than 100% support among the public at large or among health professionals. The parallel between

Editorial

our situation and the polarisation which resulted following President Barack Obama's proposals to extend health insurance cover in the USA is too close for comfort. Success will require much harder work, more determination and better preparation and research than we are used to. A more widespread and much stronger sense of social unity would help, and it goes without saying that urgent steps should be taken to diminish the impact of inequality, for which the country is now paying a very high price. There could have been no better choice of subject or speaker in 2012 – the large and attentive audience was witness to this.

The stories and pictures, followed by the details of the enquiry as a result of the Marikana strike, may have served to focus attention on the working and living conditions of the workforce on whom the country relies for minerals, maize, manufactured goods and the services we take very much for granted. For a sizeable fraction of workers working conditions are neither healthy nor safe, and living conditions leave a great deal to be desired. In consequence workers have a legitimate interest in how hospitals are run and in the standards of care they can expect when they are injured or sick. Migrants (men and women) must be chronically anxious about the outcome for their children back home should they become ill, and this gives them a legitimate interest in the primary health care clinics and the district hospitals in the labour-sending areas. The output of high calibre research from the Wits demographic and health surveillance unit at Agincourt leaves nobody with any reason to suppose that changes in the district health services just as radical as those proposed for CHBH are urgently required in the vast areas from which labour is drawn to create wealth in the urban areas.

It seems a long time since the Department of Health embarked on a branding exercise spearheaded by the slogan *We Care*. Instead of resorting once again to low key uncontroversial tactics maybe we should arrive at speed on our noisy motor bikes declaiming *Think Health, Think Weight Loss, Think Muscle, Let's Go*.

Joseph Stiglitz, a Nobel Laureate in Economics, has published a new book entitled *The price of inequality* in which he is concerned to trace the underlying reasons for the extent of inequality, and the nature and range of its adverse effects. Chapter 4 is headed *Why it* [inequality] *matters* and begins with a clear statement: *We are paying a high price for our large and growing inequality, and because our inequality is likely to continue to grow – unless we do something about it – the price we pay is likely to grow too. Those in the middle* [of the socio-economic scale]*, and especially those at the bottom, will pay the highest price, but our country as a whole – our society, our democracy – also will pay a very high price*.

Unexpectedly, for this reader at least, Stiglitz discusses in some detail the importance of research in the betterment of society. *Individuals can often be better motivated by intrinsic rewards – by the satisfaction of doing a job well – than by extrinsic rewards (money). To take one example, the scientists whose research and ideas have transformed our lives in the past two hundred years have, for the most part, not been motivated by the pursuit of wealth. This is fortunate for if they had, they would have become bankers and not scientists*.

He continues later in the chapter: *For several decades America has suffered from …* an unexpectedly detailed (and much too long to quote in full) commentary on the consequences of under-investment in infrastructure in making the lot of the poor even harder than it already is. Research features prominently in the list of important areas in which the USA has under-invested in recent years, just like South Africa. To put things right we need to understand the effects of inequality in much greater detail. Looking back to those countries which moved rapidly and boldly to remedy inequality in terms of service provision might save us time and money.

Towards the clinician-led management team: a strategy for fixing hospitals?

AJ Orenstein Memorial Lecture, Medical School, Parktown, 29 October 2012

Professor Karl von Holdt, Director of the Society, Work and Development Institute (SWOP), Wits; Professor Martin Smith, Department of Surgery, Chris Hani Baragwanath Hospital and Wits; Moloantoa Molaba, National Education Health and Allied Workers Union (NEHAWU)

Editors' note: This lecture, delivered by Professor Karl von Holdt, was based on the Service Delivery Research Project for the Office of the Presidency.

At the time of the Chris Hani Baragwanath Hospital transformation project, Karl von Holdt was a senior researcher at the National Labour and Economic Development Institute, Martin Smith was the head of the Surgical Division at Chris Hani Baragwanath Hospital, and Moloantoa Molaba was seconded to work with the transformation team.

Electronic copies of the full text of the report are available from Professor Karl von Holdt: karl.vonholdt@wits.ac.za or from the Curator of the Adler Museum of Medicine: adler.museum@wits.ac.za

INTRODUCTION

Over a period of five years starting in 2003, a team of clinicians, nurses, administrators, trade unionists and expert consultants implemented a pilot project for transforming the functioning of hospitals in the surgical division of Chris Hani Baragwanath Hospital, a tertiary hospital located in Soweto and servicing a wide catchment area in Gauteng and beyond. The project was unique in its origins, in the important role played by trade unions, and in the systematic way it constructed a new model of functioning based on the principles of decentralisation, integrated management and clinical leadership. The new model was designed to improve patient care, management efficiency and staff satisfaction and morale, and while it made significant progress in these areas through empowering staff and managers, it also alienated important and powerful constituencies within the hospital and in the provincial health department. In the end, this failure resulted in the transformation project being dismantled, and its lessons ignored.

This lecture reflects on the experience of establishing the new model in the surgical division, the rationale for the model, its methodology and achievements and its demise and some of the reasons for this. The authors were members of the designing and implementing team and this inevitably colours their perception; however, it is also a strength, as our knowledge of the overall trajectory of the project, as well as the gritty detail of implementation, provides a perspective unavailable to the external researcher. In an effort to mitigate what may appear to be our partisan loyalties to the project, we have drawn extensively on the reports of external evaluators, Doherty (2010) in particular, but also Khalvest Consulting (2009).

THE LABOUR PROCESS

There are 27 surgical wards at Chris Hani Baragwanath Hospital, comprising the general, orthopaedic, neuro, paediatric, maxillofacial, plastic, ear-nose-throat and urology sub-specialities. Each sub-speciality forms a clinical department, with a clinical (medical) head.

Patients enter the surgical wards through a variety of routes. Trauma patients, or patients showing signs of distress, come through casualty and are distributed into the trauma units of general or orthopaedic surgery, or to the relevant sub-speciality. Other patients enter via the outpatients department or through referrals from other hospitals. Surgical procedures are categorised

into elective and non-elective – the latter for conditions which require an immediate surgical intervention, such as trauma or an acute medical condition, the former for surgical procedures which can be safely scheduled for a later date.

The treatment for surgical patients is highly dependent on other sections of the hospital. Surgical procedures are performed in the theatre section of the hospital, while postoperative patients are sent to ICU for intensive care, drugs are provided by the pharmacy section, and diagnosis often requires patients to be sent to radiography and so forth. Non-clinical services include laundry, kitchen and transport.

Traditionally, different categories of workers are managed within distinct managerial silos. The doctors in each department (specialists, consultants, registrars, interns) are accountable to the clinical head of department. The nurses (professional nurses, enrolled nurses, nursing assistants) are accountable through a hierarchy of corridor matrons and section matrons to the head matron of the hospital. Cleaners and ward attendants are accountable to a foreman in the cleaning department; porters and ward clerks are accountable to a corridor supervisor in the patient administration department.

Chris Hani Baragwanath Hospital is an academic hospital linked to the University of the Witwatersrand, so the doctors are jointly appointed by the University and the Department of Health, and their duties include teaching, supervising trainees and research.

The clinical labour process is a complex one: it is spread across several different sites (surgical wards, operating theatres, radiography, pharmacy), combines a range of different categories of staff, and is dependent on non-clinical labour processes such as in the laundry or kitchen, as well as administrative processes such as procurement, financial management and human resources management. This complexity is reflected in the structures of management, which are fragmented into parallel silos.

The complexity and variability of illness and disease, and the way these manifest in individual patients, including the complexities of therapeutic decision making, means that the clinical labour process is highly skills-intensive. This is even more the case at a tertiary academic institution such as Chris Hani Baragwanath Hospital, which is characterised by a high degree of specialisation in specific areas of medicine. It is reflected in the proportion of different categories of staff: at the time of this research, there were somewhat fewer than 2 000 nurses, 500 doctors, and about 2 200 support workers, clerks, administrators, supervisors and managers.

The transformation project at Chris Hani Baragwanath Hospital focused on addressing the problems of dysfunctional organisational structures and management skills.

DYSFUNCTIONAL ORGANISATIONAL STRUCTURES

Centralised control

Hospital managers have very little real authority to manage their institutions. Staff establishments, budgeting, dismissals and numerous operational decisions have to be referred to provincial head offices. Centrally determined rules and operational interference undermine hospital management and lead to 'severe under-development of management systems, structures and capacity at hospital level, and to a distorted management culture'. (Monitor Company et al 1996: ii, 29; see also Von Holdt and Murphy 2007: 318-321.)

Silo structures of management

The organisational structure of hospitals is fragmented into parallel and separate silos of managerial authority. Thus nurses are managed within a nursing silo, doctors are managed within a silo of clinicians, and support workers are managed by a web of separate silos for cleaners, clerks and porters. This means that no unit of the hospital can be managed as a distinctive operational domain. There are grey areas, conflicts and communication failures between silos, and accountability and authority are fundamentally undermined, creating disempowered managers and a 'managerial vacuum' at the heart of hospital operations. (Von Holdt and Murphy 2007: 322-325; see also Monitor Company et al 1996.)

Clinical process marginalised by administrative goals

Centralisation of authority in the hands of administrators, and the disempowering effect of silo structures in the hospital, work systematically

to marginalise the clinical process and its agents – the doctors and nurses – from strategic and operational decision-making. The system fails to respond to the requirements of the clinical process and patient care, but operates instead according to administrative goals and procedures which generate constant failures in the wards and operating theatres. (Hospital Strategy Project 1996: see also Von Holdt and Murphy 2007: 325.)

Lack of investment in management: posts, skills and systems

Hospital management suffers from a shortage of management posts, skills and systems. There are too few managers for the scale of operations and functions that have to be managed, and too many of the senior managers in hospitals lack the experience or skills required to coordinate complex operations. The result is deficient management systems. Human resources, financial, procurement and logistical functions are rudimentary at best.

Autocratic management practices

The general management style in hospitals is an autocratic one, with instructions and decisions passed down from on high with very little consultation. This is at least in part a coping strategy for dealing with the general fragmentation and disempowerment of management authority, as well as a hangover from the apartheid era. Nursing cultures in particular are historically authoritarian (Marks 1994: 178; 204-5; 210-11).

These features of hospital management together produce a managerial vacuum at the heart of hospital operations. The fragmentation and dispersal of management authority and accountability means not only that managers and staff avoid accountability, but also that it is extremely difficult to hold them accountable. Those at the top of the management structure issue instructions and decisions, but these have little effect, and not infrequently a negative effect, on the clinical process and its support functions. The lack of clear operational domains makes it extremely difficult to manage operations or people effectively. Problems emerge, or are raised, but cannot be addressed except through temporary fire-fighting endeavours or interim solutions. The lack of management systems means that problems recur in old and new forms. Ad hoc solutions do not result in long term change. Throughout the system there is a loss of staff morale as the pressure of staff shortages is exacerbated by weak and ineffective management.

The conclusion of the transformation project designers was that ad hoc and piecemeal changes could not succeed over the medium and long-term; only systematic structural transformation could produce long-lasting, sustainable improvements.

THE TRANSFORMATION PROJECT: A NEW MANAGEMENT MODEL

The transformation project at Chris Hani Baragwanath Hospital was designed to overcome these structural dysfunctionalities and to address the management vacuum by reconstituting managerial authority with a new organisational structure. The principles of the new model attempted to address systematically the dysfunctionalities of the existing organisational structure.

The factors discussed in detail in this section of the report include the following: Decentralisation of managerial authority to the hospital CEO; integration of management functions and changing the system of parallel silos; clinician leadership; increased resources and skills; and new management practices based on the principle of consultative management.

The rationale behind decentralisation, clinician leadership and the integration of management functions 'is to reorient and enable decision-making in the service of patient care' which is affected both by the leadership of clinicians as well as by bringing administrators 'into close contact with the process of health care delivery' (Doherty 2010: 9). Consultation would ensure that better decisions were made, and that managers and staff understood and accepted them.

At the heart of the new model was a new organogram. Figure 1 shows the old organogram, with its complex of organisational silos. While the organogram implies that only the five directors who oversee the silos report to the CEO, in practice all the clinical heads of departments have access to the CEO, as they are frequently frustrated by

the inabilities and lack of insight from this group of managers, and the decisions and authority of the clinical executives and clinical director. Indeed, the incoherence of the management structure requires repeated negotiations, fractious fallouts, fire-fighting and special dispensations in order to function. Figure 2 shows the new organogram at the level of the hospital as a whole: the institution is divided into five operating divisions, four of them clinical (surgical, mother and child, medical and clinical support services) and one of them non-clinical (support services). The divisional heads report directly to the CEO, cutting out the multiple lines of authority and flattening the management structure. This is designed to impose operational order on the fragmented structures of the old organogram. Figure 3 shows the new organogram at the level of the Surgical Division, which was selected by the CEO as the pilot for implementing the new organisational model.

The new model was designed to replace multiple overlapping lines of accountability with a clear single line of accountability, providing certainty and stability to the management of operational domains. The head of the surgical division was a clinician who accounted directly to the CEO for the running of the division. As a clinician he would continue to maintain his surgical practice and teaching and research activities, but would be supported by a team of professional HR, finance and systems managers. The head of nursing for the division would also report directly to the head of division, thus building and strengthening the relationship between nursing and clinicians, which had been broken by the silo structure.

It was believed that this new model would enhance management efficiency and the effective use of scarce resources, and improve staff morale and effectiveness, enabling both management and staff to focus on improving health care. The

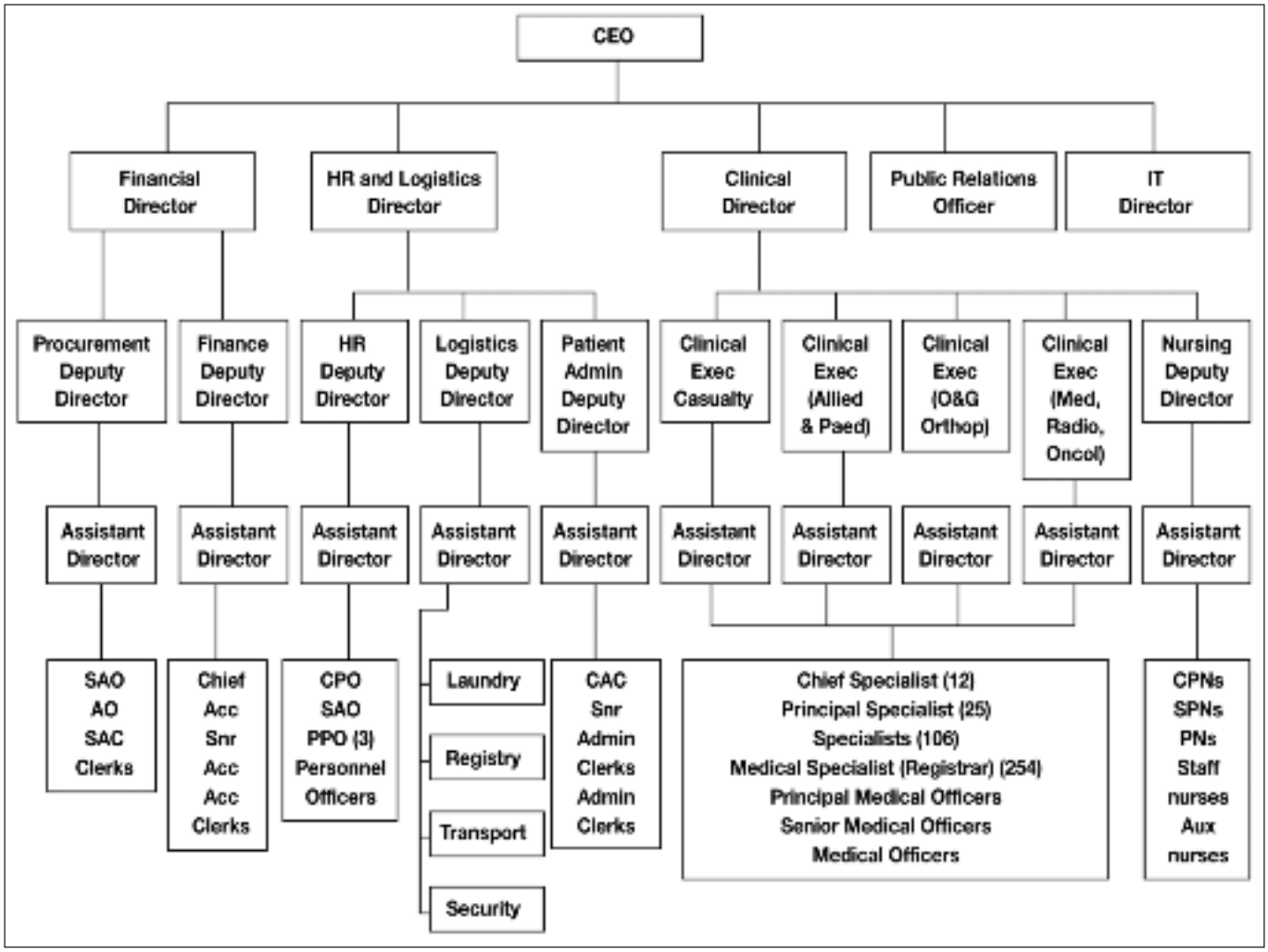

Figure 1: Gauteng tertiary hospital organisational chart

project was designed, then, to achieve three outcomes: improved patient care, management effectiveness and improved staff morale.

The new model with its principles of decentralisation, integration and clinical leadership, reflects the particular nature of the clinical labour process. The complexity of that process, and the high levels of skill and discretion that are required at the workplace in the interaction with the patient on an hour-by-hour basis, (moment-by-moment during a surgical procedure), require complex decision-making on an immediate basis. This suggests that a decentralised management structure with management authority and decision-making devolved to the lowest possible level is the most appropriate model. At the same time, the necessity for support functions to actively support the clinical process in real-time suggests that an integrated management structure at this lowest possible level will ensure the most effective combination of the diverse processes that go into patient care. Clinical leadership ensures that the head of the division represents both the highest level of expertise in the workplace and has an intimate knowledge of the workings of the clinical process. Administrative functions are subordinated to the clinical imperative. Routine processes and systems are therefore designed to support and facilitate clinical decision-making, for which they are essential.

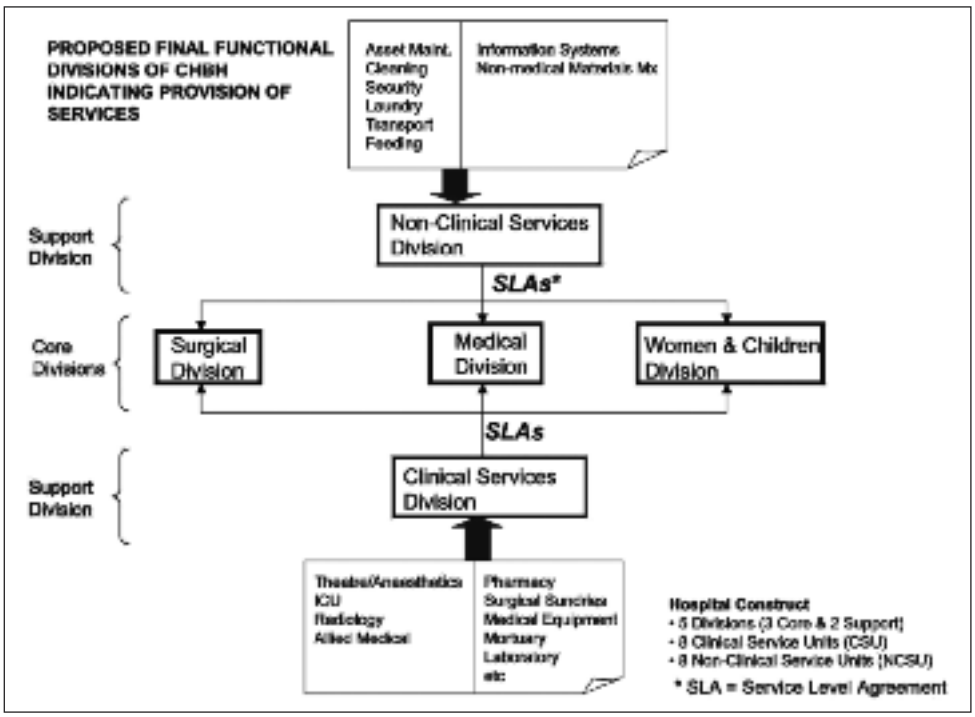

Figure 2

IMPACT OF THE NEW MODEL

In assessing the impact of the new model, we draw on two independent evaluations of the transformation project, one commissioned by the Gauteng Department of Health (Khalvest 2009), and the second commissioned by the Surgical Department in the Faculty of Health Sciences at

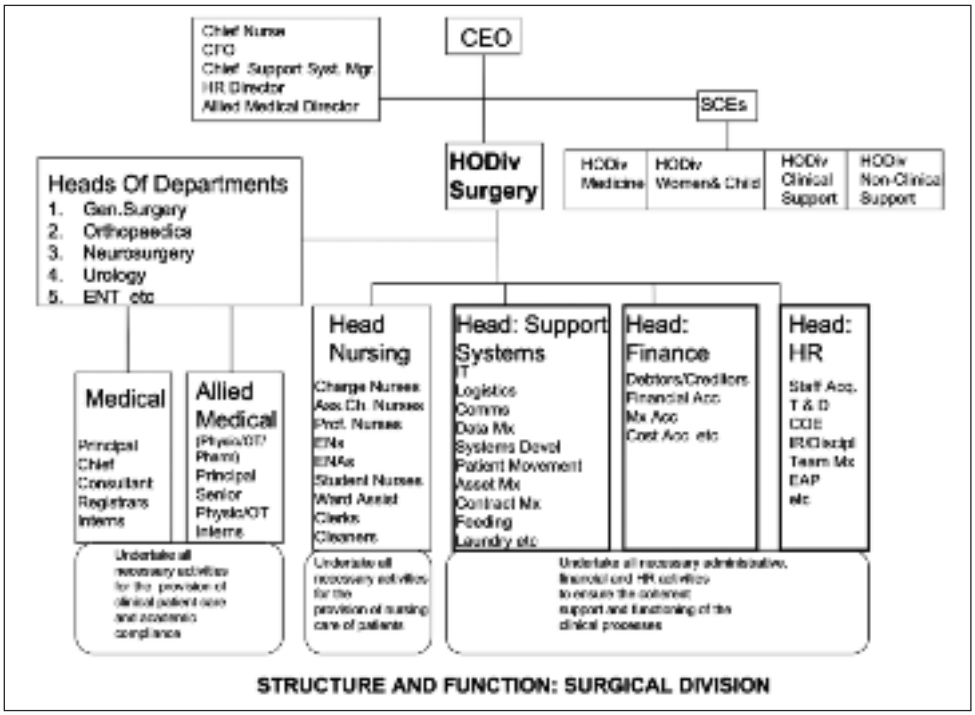

Figure 3

the University of the Witwatersrand (Doherty 2010). We draw mostly on the latter, as the former was more limited in what it assessed, was contradictory in places, and was marred by hostility towards the consulting organisation which drove the implementation of the project.

Management effectiveness

Independent evaluation of the transformation project concluded that there had been considerable improvements in management efficiency. The creation of an integrated management structure with clear lines of accountability created the ability both to solve pressing problems, as well as to put in place systems which prevented the problems from arising in the first place. Some specific achievements were:

- the daily adjustment of staffing in the wards according to bed occupancy and activity levels, based on validated norms
- ward staff no longer had to leave wards for a long time to make personnel queries or receive payslips, as these were dealt with in the wards
- 65% reduction of queries about salaries and conditions
- 50% reduction in time taken to appoint staff
- human resources maintains the standard of processing within 24-hours all documents received
- billing system established with increased revenue stream for hospital
- decline in outstanding debts
- improved tracking of expenditure and debt
- generation of accurate information for estimating costs and budgets
- supply chain management system established and able to innovate regarding equipment supply and maintenance contracts and establish rapid response systems with suppliers
- correct items ordered and delivered, rapid payment of suppliers, reduction of shrinkage. (Doherty 2010: xii-xii, 61-2.)

Staff morale

Doherty (2010: 66) draws from Khalvest (2009) as well as her own interviews to conclude that 'significant improvements in staff morale and labour relations were the result of transformed management systems and a change in organisational ethos.' The Khalvest staff survey produced significant results regarding staff experiences at work. The results suggest an extremely positive relationship between employees, and a positive relationship with management. The lowest scores are for work load and equipment, which depend on hospital budgets and are beyond the control of either the surgical division or central hospital management; these in turn may account for the otherwise anomalous low score for employees feeling valued at work. While there is also a lower score for communication, there is a high score for involvement in decisions that affect staff. Overall, as Doherty comments, this picture provides a strong contrast with previous surveys in the surgical division prior to project implementation (Rajaram 2006), and across the hospital (Schneider, Oyedele et al 2005; Landman, Mouton & Nevhutalu 2001).

In a more qualitative account of management morale, Doherty (2010: 63) reports:

> 'There is in fact a completely new level of trust, co-operation and respect,' said one respondent. People interviewed demonstrated a striking enthusiasm and unity of purpose, as well as a sense of relief that interpersonal relations were well-structured and respectful. As one person said: 'You feel that it's quite nice to work here, there's a difference in the workplace', while another said: 'There is more opportunity and freedom to do what I think best'. The same person said: 'I feel much better respected but the feeling is mutual ... we have started to see each other as human beings'. Referring to nurses' satisfaction, one commentator said: 'Nurses? They seemed to be better. I think there's a lot of allegiance. I sense a lot of allegiance towards the department.'

Patient care

The Doherty evaluation explored the use of intermediate indicators as proxies, and found them to be convincing indications of improved quality of care (Doherty 2010: 69). Most of these intermediate indicators reflected an improvement in management efficiency and coordination in the wards. Doherty (2010: xiv, 67) lists some of them:

1. Re-establishing the practice of doctors and nurses doing ward rounds together, so that instructions for patient care are clear and good communication is fostered. This is supplemented by other practices that encourage communication and team working between doctors and nurses.
2. Ensuring that the instructions for patient care are carried out by creating clear lines of accountability for all nursing staff, with final accountability for the ward resting with the Ward Manager.
3. Clarifying standards of patient care, including the development of standard operating procedures that guide nursing staff and have their buy in. This is especially important now that there are more enrolled than professional nurses in the wards.
4. Empowering nurse managers to solve patient care problems themselves and raise concerns about medical care and ethical issues.
5. Identifying instances of poor patient care and implementing remedial action, including formal, regular mortality and morbidity conferences of doctors and nurses.
6. Creating rapid and innovative solutions to problems of clinical organisation, including improved cooperation between sub-specialities. Implementing a system in the general and trauma wards whereby a consultant is permanently (in house) on-call for intakes (an unusual arrangement in South Africa).
7. Creating a high-care trauma unit within the division, so that these patients can receive more intensive care.
8. Responding rapidly to concerns raised by patients and their families.
9. Improving the hygiene of the environment by keeping wards clean, attending to leaking toilets and ensuring that paper towels and disinfectant are available in the wards for washing hands.
10. Ensuring that supplies and equipment are ordered and received promptly.
11. Improving staffing levels by developing norms according to bed occupancy and activity, as well as by filling vacant posts rapidly.
12. Freeing staff from administrative burdens so that they have more time to spend at the bedside.

One might include others, such as improved stock control in the wards and the implementation of effective disciplinary procedures.

The Doherty evaluation provides qualitative evidence that the surgical division management believe the transformation project had significantly improved patient care:

> This [the project] replaces a health environment that one respondent characterised as 'complete disorganisation. Each one of us was doing whatever he wanted. I'm talking about the heads of the units. There was no control, outcome control. There were no protocols. There was a complete hiatus between the nursing staff and the doctors. The different specialities did not have contact as such and there was a lot of animosity and a lot of competition.' Now the Surgery Division attempts to provide an 'environment [that] supports attention to detail'. As one respondent said: 'In an environment where there is order, patient care [doesn't] slip through the cracks. And I've seen it in some of the units where there is less attention to detail and I see the chaos that happens there and I see the morbidity and mortality meetings and when we interrogate adverse outcomes I can see that there was no attention to detail. Someone just skated past and very superficially just had a look, rather than spend time really engaging. So it's those kinds of mindsets that one wants to change, not just by instructing people to do it, but by giving them an environment where it's easier to do it'. (Doherty 2010: 68.)

The Khalvest report quotes a senior university academic commenting that the training programme in the Division was now on a par with that at Johannesburg Hospital, with registrars now happy to rotate through the Division whereas previously there had been resistance: 'The academic scope ... has grown significantly. The creation of the [Division] has reduced the overload on the students ... The Division has become one of the strongest in the country and created control on what is technically possible, and provided a good

opportunity to create multidiscipline [sic] in a single training environment'. (Khalvest Consulting 2009: 36.)

HOW THE PROJECT ACHIEVED THESE OUTCOMES

Partnership with trade unions

The partnership between managers, clinicians and trade unions in developing the new model and implementing it was a unique feature of the transformation project. It was in fact the National Education Health and Allied Workers Union (NEHAWU), a COSATU affiliate, that initiated the project in 2000 by approaching the COSATU Research and Policy Institute, NALEDI, and proposing a project to transform Chris Hani Baragwanath Hospital into a 'people's hospital' which both delivered a good quality health service to the community and provided a decent quality of work life for its staff. The CEO at the time was enthusiastic and supported the initial research by NALEDI. Over a period of three years research was conducted and a series of stakeholder discussions led to the support of the other trade unions, the hospital board and the Gauteng Department of Health, and it was agreed to start a pilot project in the general surgery department of the hospital. A strong partnership was established with the head of this department.

A broad outline of the new model of decentralisation, integrated management and clarifying the lines of accountability emerged through the NALEDI research, the input of the trade unions, and the clinical perspective of the head of department. The distinctive feature about the research was that it established a perspective on management failure *from below*, through intensive interviews and focus groups with cleaners, clerks and nurses. The research identified the fragmented silo structure of management, top-down, bureaucratic and authoritarian management culture, the breakdown of discipline, the lack of skills development and career pathing, the lack of team work and staff shortages as key problems (Von Holdt and Maserumule 2005). The research results and the proposed new model were then presented back to union members and the surgical department staff more broadly for further discussion and refinement. The different unions were able to make significant contributions from the perspective of different categories of workers, with NEHAWU particularly important in relation to support workers, and HOSPERSA and DENOSA assisting to define the role of the nurse as ward manager.

The project was initiated in 2003. The lack of financial support meant it was unable to make much progress beyond the appointment of ward managers for each of the eight wards, and the building of team cohesion through regular weekly meetings of the ward managers, the clinical head, nursing head and administrative head, where operational problems could be addressed in a limited fashion.

At a broader level in the hospital and the provincial department of health, the future of the project remained uncertain. The CEO and his senior management team had been unceremoniously removed, and the new CEO and team were not convinced of the merits of the project. In the department, support was intermittent and lukewarm. Political support from the Premier and the MEC for Health was strong verbally but had no practical significance. Among the trade union organisations, NEHAWU had the most political weight, but it too provided only verbal support. This situation changed with the advent of a new NEHAWU provincial secretary who adopted the project enthusiastically and engaged the MEC. The result was financial support for a three-day workshop for representatives of all constituencies in the hospital, where the outlines of a transformation plan for the institution as a whole were established.

Promises of financial support to implement this plan led nowhere. The provincial secretary was replaced as a result of internal struggles within NEHAWU and the union campaign to put pressure on the provincial department ran out of steam. However, the head office of the union began to take a new interest in the project, led by a head office official and the union general secretary. When the appointment of a new MEC failed to clarify the status of the project, the union spearheaded the organising of a march to Chris Hani Baragwanath Hospital in support of funding for transformation. The march was a remarkable display of unity across all constituencies, combining toyi-toyi-ing cleaners, clerks and nurses with matrons, professors, the Wits Dean of the

Faculty of Health Sciences, community activists and church members. A memorandum was handed over to the MEC demanding project funding, the removal of a senior departmental official regarded as the chief opponent of the project, and the appointment of the clinical director to the vacant post of hospital CEO.

The clinical director was appointed CEO some weeks later. The departmental official remained in place. Funding was made available, a tender was issued, NALEDI established an expert consulting team consisting of the former management team from a large mining company's health services division, put in a bid and was awarded the tender. NEHAWU seconded its head office official to the NALEDI team. The project could now be systematically implemented.

The NALEDI consulting team contained an unusual combination of expertise, including a highly experienced trade unionist and highly experienced health managers with public and private sector experience which, it was hoped, would ensure that the transformation project incorporated the concerns of trade unions and their members as well as the technical and managerial perspectives required to end the 'managerial vacuum' in the surgical division, as well as retain the political support of labour. Indeed, the managerial perspective had already, prior to the bid, been quite decisive in resolving a central issue in establishing the new accountability structure; namely, the reporting relationship between the most senior administrator and the clinical heads at the apex of the divisional structure. Dr Colin Eisenstein was the project manager whose depth of experience as well as technical expertise were the critical factors in project implementation. He proposed the appointment of the clinical head as the Head of Division, with administrative managers reporting to him. This reversed the current practice, and made immediate sense to the CEO, the clinical head and the project team, though it remained controversial with hospital management more broadly and among provincial health officials.

During implementation the role of the trade unions remained an important one. Consultative structures were established, with regular meetings to update unions about progress and problems, and to take into account concerns of unions and their members.

This was important for helping to resolve potentially conflictual issues. For example, appointing the ward managers at a higher grade than the rest of the professional nurses, in recognition of their managerial role, was thoroughly canvassed with trade unionists before being implemented. In the normal course of conflictual labour relations in the hospital, innovations such as this would have been automatically resisted, and bureaucratic procedures used to stall change. In another case, the appointment of a white manager to the surgical division proved controversial, and lengthy discussions with shop stewards had to take place in order to allay concerns. The relations of trust established between union shop stewards and the head of division, and over time with the rest of the surgical management team, also meant that workplace conflicts, including disciplinary cases, could be resolved relatively easily, rather than being escalated into full-scale confrontations between support workers and nursing managers, as was traditionally the case.

> Now when we get into a confrontation in the ward, say between a nurse and a cleaner, the labour representatives come to the ward, and the nurse phones the labour relations officer and says we've got a problem, can you organise and we will all come together. The cleaner in the room, and a nurse in the room, and their representatives there ... they sort it out amongst themselves, industrial peace and everybody goes on their way. (Doherty 2010: 47.)

Trust developed from continual communication, as another respondent said: 'Union representatives come in here and chat – we never had that relationship before'. (Doherty 2010: 64.)

In return, the unions won small gains. Twenty new cleaners were employed, lightening the load of the existing cleaners and ensuring that the wards could be kept clean. The project managed to negotiate a bridging programme for 20 enrolled nurses from the division so that they could qualify as professional nurses. Skills development was a key union concern, and the training programme would also help meet the shortfall in professional nurses. Probably the most

important feature for the unions, however, was their own role in defining and establishing the project, and the inbuilt processes of mutually respectful consultation that constituted one of its principles. Indeed, it was this principle that made it possible to negotiate the biggest innovation in labour relations, and the one with the greatest potential impact on labour relations nationally in the public health sector: the minimum services agreement during the 2007 public service strike.

Thus the trade union role in the project operated at two levels: firstly, in the workplace, through defining a strategic partnership with labour and consulting over gritty workplace issues such as the authority and status of ward managers, disciplinary processes, the role and accountability of cleaners and so on; and secondly, at a strategic political level in terms of pressurising the government to accept and finance the project. On numerous occasions when the project future was uncertain, or stalled by the lack of departmental support, NEHAWU went out on a limb to support and protect it. Without this, the project would never have happened; however, this was probably a contributing factor to the hostility to the project from various officials and managers.

Nursing: from silo to empowerment

Transforming nursing practices was probably the single biggest factor in improving clinical efficiency and patient care. The model achieved this by dismantling the nursing silo, establishing accountability and a good working relationship between nurses and doctors, empowering the ward managers, who are nurses, to take charge of their wards, and building teamwork among nurses in the wards.

The new model therefore had a significant impact on the ability of nurses to do their work in a professional way. As one nurse respondent put it the sense of empowerment 'has been beyond my dreams'. (Doherty 2010: 25.) Establishing stability in the nursing domain enabled the surgical division to reconstitute the routines that are so essential for the clinical process. The bulk of nursing activity is about routines: gathering information regularly, making sure that it is recorded adequately, maintaining infection-control protocols, ensuring that the clinical instructions regarding medications, drips, dressings, etc are rigorously followed, ensuring that the ward has adequate stocks of drugs, medical sundries, linen and so on. It is only on the basis of these routines that diagnosis – which is where complex discretionary decision-making applies – can be accurately made and treatment implemented. Routine, however, is not enough. Patient care also requires nurses to engage with the patient, the doctor and the family. Empowerment, authority, and responsibility are necessary for these more skilled and discretionary activities, and that is what the new model aimed to provide.

Human resources management

The decentralisation of human resources functions to the surgical division was designed to bring the functions much closer to the staff, and at the same time effect a shift from personnel administration to active human resources management. The central HR function in the hospital is essentially administrative, and is experienced as faceless, time-consuming and inefficient by hospital staff, partly because the HR function is itself understaffed, and partly because dealing centrally with the needs of around 5 000 people is, as one respondent said, 'totally unmanageable'. (Doherty 2010: 45.)

The new decentralised HR office was relocated in the same building as the rest of the surgical division management, and consisted of the divisional head of human resources, three HR officers, and six administrative clerks. It focused on administrative efficiency, active labour relations management, improving discipline and skills and development. In relation to efficiency, the HR office succeeded in halving the time taken to fill vacant posts, established rapid response procedures for queries and grievances, delivered payslips directly to wards and instituted regular visits to wards to ensure communication with staff. The increase in efficiency and responsiveness increased staff satisfaction and led to a 65% reduction in queries. The goal was to ensure that HR met the needs of the surgical division managers and staff, to improve staff morale and at the same time reduce to a bare minimum the amount of time staff had to spend outside the wards on administrative routines or queries. As one of the project designers explained:

> Nurses get sick, their children die, they have a motorcar accident, they feel depressed by the HIV load that they've got to deal with, they don't have enough equipment, and you've got to keep motivating them to stay at the bedside and nurse in a meaningful way. You've got to have an HR practitioner who is on their doorstep and walks into that ward on a daily basis and says: 'Here I am, how can I help?' Don't ask the nurse to leave the ward and go to HR. Don't expect them to go and walk up to the fourth floor of a tower block to get their payslip. Its three hours out of their day. Now it's delivered to the bedside. If you don't bring those things down to the smallest level of managerial accountability ... you will not succeed in affecting health care services.' (Doherty 2010: 45.)

A respondent from the HR section put it succinctly: 'We cannot go any other route than being closer to the employee'. (Doherty 2010: 46.)

Regarding discipline, the HR section established rapid, effective and fair disciplinary processes, supported by training of all ward managers and clinical department heads. As noted above, regular engagement with trade union representatives created the scope for the informal resolution of labour relations and disciplinary problems where appropriate, as well as the acceptance of formal disciplinary processes, with formal warnings issued to wrong-doers. It was important that this was seen to operate impartially at all levels, from cleaner to clinician. One of the most serious and deeply rooted problems at clinician level is the misuse of the Remunerated Work Outside the Public Service (RWOPS) policy, which allows doctors in the public service to supplement their salaries with private practice patients, limited to 20% of their working time. Several clinicians were issued written warnings, and two were left with no option but to resign, which demonstrated a new attention to discipline across the division.

There was limited progress in the area of skills development and career pathing, partly because of delays in appointing the relevant officer, and partly because of insufficient resourcing across the public health system.

Finance and procurement

The intention in decentralising the financial and procurement function to the surgical division was to enable the establishment of the division as a full cost centre with proper activity-based budgeting focused on clinical priorities, real-time monitoring and management of costs and financial accountability. In addition, the numerous problems with procurement – ordering and delivery of wrong equipment, unwieldy maintenance procedures, failure to pay suppliers and consequent termination of deliveries – were to be resolved by establishing a procurement section closely aligned with the surgical management and dedicated to meeting the requirements of patient care.

One of the section's most effective interventions was developing a supply chain management unit to manage procurement which was able to develop an innovative equipment leasing contract in place of the prevailing equipment purchase system, with both financial and maintenance advantages for the hospital. This unit ensured that the divisional equipment budget was focused on clinical priorities, that the correct equipment was specified and ordered, that it arrived promptly and that most invoices were paid within 30 days, in contrast to the situation elsewhere with many invoices outstanding at 120 days. This was achieved through the existence of staff dedicated to servicing the needs of the division and their systematic contact with the clinical staff and their needs. The unit still had to work through the Gauteng Shared Services Centre, an enormously inefficient and frustrating institution, but their ability to focus ensured high levels of success. The head of division spent significant time building relationships with suppliers. The supply chain unit was integrated into the clinical process, providing a concrete instance of the transformation project's principle of putting patient care first.

Editors' note: Some of the details of the discussion of finance and procurement are omitted but appear in the full report.

Clinical leadership and integrated management

A multidisciplinary team involving representatives of finance, HR, nursing and doctors investigated clinical processes in theatre and in the wards in order to develop a costing model for different

procedures and a workable system for recording costs. The involvement of nurses in developing administrative procedures was unprecedented in the hospital.

A similar multidisciplinary process was used to manage the renovation of the plastic surgery ward. Central management had arranged this without informing the head of division or the nursing manager, and then instructed the head of plastic surgery to close the ward at short notice. The head of division responded by insisting on a delay, and convening a multidisciplinary team to plan the closure properly, securing space for patients in other wards, adjusting the surgery list, etc. before renovation commenced.

Integrating support functions into clinical management was not only a matter of the lines of authority and accountability, but also bringing administrative managers and staff into direct contact with clinical processes and patients' needs in the wards. This was facilitated by decentralisation, which brought administrators out of the central administration block into close proximity with the wards, but also by involving administrators in regular visits to the wards.

The authority of the head of division, resting on his authority as a specialist surgeon, was crucial to the new model, as it enabled him to exert his authority internally in the division in relation to clinical department heads, nursing and administration, as well as externally in relation to the administrative managers in the hospital. His accountability to the CEO rested on a mutual recognition of authority, and allowed for decisiveness in decision-making, as the divisional head represented the entire division.

An important element in the new model was the incorporation of all the surgical sub-specialities into the surgical division, and the subordination of the sub-speciality heads to the authority of the head of division. This made management sense in that it created divisional coherence, and a single channel of communication and accountability between the division and the CEO, in place of the previous 'system' in which all of the nine sub-speciality heads had direct access to the CEO.

Ultimately, however, the establishment of the surgical division executive committee empowered the clinical heads in the running of the division. The clinical leadership became significantly stronger and more independent minded in asserting the requirements of the clinical process in the hospital. The substantive and focused discussions in the executive allowed the clinical head to take real proposals to the CEO which were almost always accepted because they were well-motivated. So, on the occasion when the surgical executive had developed an equipment budget of R10m for the year, and the entire hospital was provided with a budget of only R10m, the executive took the responsibility for developing a new equipment budget of R3m. Previously the hospital management would have made their own selection from the original surgical budget, which would not necessarily have taken into account the priorities of the division.

It was these experiences, separately or in combination, that convinced the entire management echelon in the surgical division – administrators, nurses and clinicians – that the principle of clinical leadership was the single most important factor in the successes of the new model. As one respondent put it:

> [Administrators]... don't see things from the floor. The clinician sees what's happening ... The clinician also comes into contact with the nurses, sees them every day, with the cleaners ... The administrator is at the back of the desk ... He loses contact with reality ... He does not understand what it means, what it is not to have a ventilator. For him a ventilator is a number. For us a ventilator is a patient. So he says: 'Yes, there is a patient,' but he doesn't see the patient. So it's a different approach to everything.

OBSTACLES AND RESISTANCE

Lack of support from the department

In large part this had to do with the origins of the project in the trade union movement and its policy institute. While this was a source of strength both in providing political pressure without which the project would never have taken place, and in providing a countervailing base for innovation outside the dysfunctional bureaucracy of the department, at the same time this meant that key officials in the department would see the project as imposed from outside and implicitly a critique of their practices.

Failure of the department to provide resources

This immeasurably complicated and slowed down the implementation of the project.

Resistance from senior hospital managers

At the inception of full implementation of the project, the senior hospital managers refused point-blank to cooperate with the transformation project as they felt it undermined their authority. This attitude only changed a considerable way into the project, and not in all cases.

Racial dynamics

It is not improbable that racial dynamics played a part in resistance to the project, and indeed rumours and anecdotes support this thesis. Of the four key project designers, including the head of division, three were white. All of the senior managers affected by the new model were black, as were some of the most critical senior clinicians and all the provincial head office officials with whom the project had contact. The motivation of the project was explicitly critical of hospital and departmental performance, and of the prevailing managerial structures and practices, and this critique could easily be construed as white criticism of black performance.

Loss of support in the hospital

The transformation project initially had substantial support from across the clinical and trade union constituencies in the hospital as a result of intensive consultation and research processes that had involved all constituencies. However, this support gradually eroded because of the delayed implementation, the additional resources channelled to the surgical division to enable it to pilot new structures and practices, and the failure to continue involving the whole hospital in consultative processes. Consultation with staff and unions remained a core feature in the surgical division itself. Some clinicians in the broader hospital accused the project of holding resources and failing to report on progress to the rest of the institution. The project team, with all its focus on overcoming the obstacles to implementation, felt that the CEO and the clinicians in the rest of the hospital should take responsibility for this. Ultimately, however, the surgical division became increasingly isolated while the rest of the hospital, overwhelmed by the daily grind of trying to make things work, lost interest or became hostile.

Declining support from NEHAWU

At a political level, NEHAWU's support was crucial for the implementation and protection of the project. At several key points this support ensured that the project would continue. However, by 2008 the union leadership was making it clear that they could not go on fighting for a single project if the government was unprepared to learn the lessons and take responsibility for rolling it out more broadly. In the hospital, too, the shop stewards focused on other priorities. It was probably only the support of the union that prevented departmental officials who were hostile to the project from removing the CEO earlier; when the blow finally came in late 2008, there was no significant resistance.

SUMMARY

In summary then, from very soon after it was first mooted with the provincial department of health, the transformation project faced varying degrees of indifference and hostility from within the department and from senior managers in the hospital. This can be attributed to several factors. The origins of the project in trade union proposals, and the outspoken support and pressure from the unions at various points in the life of a project, did not endear it to officials. The fact that the new model was developed and advocated from outside the bureaucracy, and that it was both implicitly and explicitly critical of the prevailing arrangements and practices, meant almost inevitably that officials would resent the project and see it as imposed from outside. The fact that the majority of designers and advocates were white played into racial dynamics. The new model entailed a substantial loss of power and redefinition of work responsibilities on the part of hospital administrators and managers, inevitably generating resistance. The conceptual and actual empowering of senior clinicians disturbed the power and control of administrators and played into tensions over race, skill, authority and

hierarchy in the post-apartheid state.

All of these factors combined tended to work against the long-term success of the project. The concurrent loss of support in the hospital, and dwindling enthusiasm of the union for continued battles over the project, meant that there was less and less a countervailing force to support the project.

It can be argued that several of these factors might have turned out differently if the project team had been more proactive in attempting to win allies within the department and within the hospital (see Doherty 2010: 74ff, for extended discussion of these failings). The project team may well have erred in using political strategies via the trade unions and the MECs to impose the project on the department, as one commentator believed: 'They saw the power base was with the politicians ... rather than with the bureaucracy but as you know with any of these things, if you want to drive through certain projects or certain transformation efforts you have to get the bureaucracy to support that.' (Doherty 2010: 77.) However, it is not at all clear that there was sufficient will, skill, dynamism or functionality in the department for a momentum towards implementation to be generated. The resort to political strategies was a response to what appeared to be departmental inertia and indifference.

In retrospect, it appears inevitable that the project would ultimately fail, as it challenged too many entrenched interests and too wide a front at the same time. The view of its protagonists – that if they could ring fence and protect the pilot for long enough, success would make the new model irresistible – seems naive in light of what actually happened.

THE DISMANTLING OF THE PROJECT

In late 2008 the CEO, who was a key advocate of the transformation project, was removed from Chris Hani Baragwanath Hospital. By mid-2009 it had become clear that there was no longer sufficient political support for the project to be protected.

For the whole of 2009 the surgical division continued to operate on the basis of the new model, but in a kind of uneasy limbo in the institution characterised by the lack of support but no overt attempt to dismantle it. However, early in 2010, when the acting CEO was confirmed as CEO, the project was decisively dismantled in every respect and it no longer exists in the hospital.

CONCLUSION

Although the new model was not able to achieve everything that it set out to, it did achieve remarkable successes in improving management efficiency, staff morale and patient care. It is true that with regard to patient care we lack the clinical data that would prove this beyond doubt; however, the proxy indicators developed in Doherty (2010) and summarised on page 9, provide substantive proof of the ability to focus on healthcare improvement in the surgical division. It can be asserted that the management efficiency and the improved practices of patient care achieved by the project provide at least the necessary conditions for clinical improvement, even if in this particular case it is conceivable that patient care did not improve. For example, establishing standard operating procedures for nursing in the wards, including joint ward rounds, is at least a necessary condition for good patient care, even if the actual practice in one or more wards fails to translate into good care.

In our view, the combination in the model of decentralisation and integrated management under clinical leadership accounts for these achievements. Clinical leadership was critical, though this remains the most controversial element of the model. The reason clinical leadership is appropriate in the hospital setting is the high level of discretionary and skills-based decision-making entailed in the daily activities of health care provision; the clinical head of division embodies the direct knowledge of these daily activities and the nature of the discretionary decisions involved, and so is best equipped to ensure that the necessary supportive environment is brought into being. The clinical labour process is perhaps unique in the way it makes use of the highest level of skill directly in the interface between the daily work practices and the public in the form of the patient. Clinical leadership therefore grounded the decision-making of the entire division in the concrete requirements of the clinical labour process and ensured that this took

precedence over, and shaped, everything else.

The new model tied the entire organisational structure and its administrative practices to focus downwards on clinical care, rather than upwards towards hierarchy, upward mobility and excessive deference, as tends to be characteristic of the post-apartheid state more generally (Von Holdt 2010). The integration of clinical and administrative functions into a single management team led to the establishing of order, coherence and stability in the division. Effective and predictable routines were re-established both in clinical practices as well as in support functions such as HR, procurement and finance, creating the necessary platform for discretionary decision-making that is not arbitrary, but is founded on consistent and reliable information and the ready availability of the material and human resources.

While the new model is appropriate in terms of the structure of the labour process, it is also extremely powerful as a solution to the dire shortage of management expertise and skill in the South African state. It points towards making use of a considerable skills resource that still exists in the public health sector; namely, clinical skills that reside in doctors and, to a lesser extent in nurses, and placing these in positions of authority close to the clinical process so as to ensure that it is managed appropriately. In societies where the state bureaucracy has access to very high level bureaucratic and management skills, it is conceivable that centralised state institutions can provide the institutional stability and effectiveness, and the material and human conditions, for the clinical process to function effectively. However, in the absence of this, it makes sense to deploy clinical expertise, where possible, to ensure that institutions function effectively, rather than isolating it in a micro-level clinical process which is continuously destabilised by bureaucratic and management failures at other levels.

The project team argues that this model, while constructive specifically to improve patient care outcomes in a tertiary academic hospital, has broader applicability across the public health care system in, for example, secondary hospitals, district health systems and clinics. Considerable adaption and experimentation would of course be needed in these different settings to take account of the particular skills mixes and the requirements of the clinical process at different levels of the health system, but the principle of clinical focus and leadership, and the integration of administrative with clinical management, could provide a powerful strategy for regenerating the public health system.

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Professor John Mitchell Watt (1892–1980): Wits' first Dean of Medical School and a pioneer of ethnopharmacology

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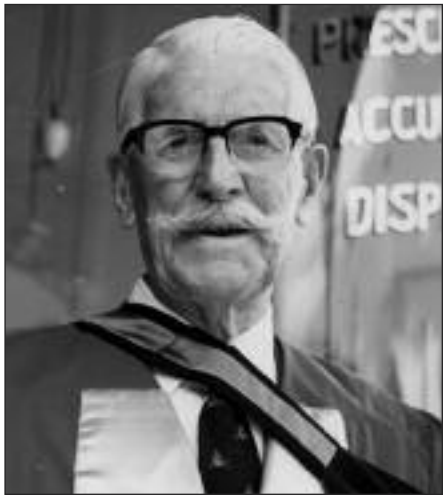
PART 1: INTRODUCTION by Vivienne L Williams



Emeritus Professor JM Watt in 1972 in front of the Adler Museum of Medicine after receiving his honorary degree of Doctor of Laws during Wits' Golden Jubilee celebrations

In its 90 year history, the University of the Witwatersrand and its Medical School has taught, trained, nurtured and supported many notable and internationally-esteemed academics and pioneers. A young doctor present at the inception of Wits when it achieved university status on 4 October 1922 as its first Dean of Medical School,[1,2,3] and who was a pioneer in his own right, was Professor John Mitchell Watt. Watt, in partnership Dr Maria Gerdina Breyer-Brandwijk[4] (1899–1994), initiated and co-authored the now world-famous book *The Medicinal and Poisonous Plants of Southern Africa* in 1932,[5] and the revised and more comprehensive second edition *The Medicinal and Poisonous Plants of Southern and Eastern Africa* in 1962.[6] The books launched the international careers of 'Watt and Breyer-Brandwijk' and made their names synonymous with the discipline that would become 'ethnopharmacology' in the 1960s.

Professor Watt (known familiarly as 'Ian' from infancy) served as Dean from 1922–1925, and again from 1945–1948. Hence, Watt was Dean in 1924 when Wits' first four doctors graduated,[7,8,9] and when Dart discovered the Taung fossil. Watt was also Dean when the first African male and female doctors graduated in 1946 and 1947 respectively.[10,11] Furthermore, as Chair of Pharmacology from June 1921 to December 1957, Watt ultimately taught pharmacology to thousands of medical students, some of whom would go on to become world-class scientists, researchers and medical practitioners – including that brilliant trio of Sydney Brenner, Priscilla Kincaid-Smith and Phillip Tobias in the late 1940s. The combined effect of his active role as an administrator, teacher, representative and researcher was that he witnessed, supported and participated in many of the university's milestones and achievements.

Since 2012 is Wits' 90th anniversary, and the 80th and 50th anniversaries of the publications of the books, it is fitting that we remember a man who played an enduring, and often forgotten, role in the university's history. To some extent Watt's contributions were overshadowed by the achievements and charisma of his successor as Dean, Professor Raymond Dart (Dean 1925–1943; Chair of Anatomy 1922–1958), but my research on 'Watt and Breyer-Brandwijk' aims to reacquaint the public with the lives and lasting legacies of these two important South African scientists.

In 2011, a series of events (that are best described as serendipitous) led me to investigate the lives of Ian and Maria. The past was brought remarkably to the present on discovering that I knew people who had known them, and within a few short months I amassed a considerable amount of biographical and professional information – including an autobiographical document in the Adler Museum written eight

months before Watt died in Brisbane at the age of 87.[12] This lengthy document is mainly a narrative of his early life, family history and education, and the information contained therein helped me to locate his youngest son, Jim Watt, in Brisbane in 2011. Our correspondence has been both satisfying and invaluable.

Watt published three articles for the *Adler Museum Bulletin* that were reminiscences of his university career from 1921 to 1948.[9,13,14] Since the document in the Adler Museum archives is an unpublished personal narrative of Watt's early life and career from 1892 to c1921, Part 2 of the article is derived from this period of his life history. In reproducing Watt's memoir in his own words, I have generally not changed the style and spelling of the original version; hence, this article is a jointly authored and abridged account of this period. Part 3 of the article, written by Jim Watt, is an honest and endearing remembrance of a father by his son. Together, the recollections are complementary to the larger paper being written that honours the lives and scientific legacies Watt and Breyer-Brandwijk (Williams and Roe, in preparation).

Pharmacology Class 1921-22, showing Watt with three of the first four doctors who graduated in 1924 (BI Kuny, GF Slade, GC Thomson)

PART 2: MEMORIES OF HIS EARLY YEARS, 1892–C1921 by John M Watt, 17 August 1979

a) Parentage

My father, John Watt, a draper, was born 1st January 1863 in New Deer, Aberdeenshire (Scotland). He left school at age 12 and was five years apprenticed to a draper in Aberdeen; thereafter he worked for several years in the City of London. Recruited by Messrs. Cleghorn and Harris, he migrated to Cape Town about 1885 and was transferred shortly afterwards to Port Elizabeth. He was a soft goods buyer for some 50 years, and was one of the most upright men I have ever known. He died in Brakpan in the Transvaal, 6th June 1936. My father's people were farmers and stonemasons. His father, because of a birth palsy in one arm could not follow the plough. He was therefore, apprenticed to the village merchant, who ultimately left the business to him.

My mother, Margaret Mitchell, a milliner, was born 28th March 1863 at Airth Castle near Stirling; her father was Factor of the Estate. My mother was for a while at school at Wishaw, but later the family settled on the Rosebery Estate near Gorebridge. About 1887, like my father, she was recruited by Messrs. Cleghorn and Harris for their Port Elizabeth branch, where she met my father. My mother remained an artist in designing and making hats out of scraps of straw and other material. She died in Johannesburg, 25th June 1944.

My parents were married in the Hill Presbyterian Church in Port Elizabeth on 6th June 1891. They lived in one of a little block of semi-detached villas, known as Trenton Villas, No. 1 Cape Road (now opposite the Horse Memorial). I was born there, my sister in Newmilns, Ayrshire, and my brother in Kroonstad.

b) Birth and childhood

I was born in Port Elizabeth, Cape Colony, 1st December 1892, but did not thrive. About the age of 2 I was taken to Graaff Reinet by rail to the care of my Aunt Mary Ann, my mother's eldest sister. I recollect staying with her in a large boarding house in Napier Street. She was in charge of the showroom of Cleghorn and Harris, the premises of which were nearby.

The most poignant memories of this period were: 1) cod liver oil, raw and so-called tasteless, with which I was dosed after breakfast each day. I remember preparing a handful of dry, crumbled bread, which I stuffed into my mouth to rid it of the nauseous oil clinging to my buccal mucosa; 2) the turkeys in the extensive back yard of the Boarding house. I was terrified of these birds and used to crawl on my stomach across the kitchen floor and made a careful reconnoitre for turkeys before going forth. Useful training for future war service.

Thereafter my family lived in Kroonstad in the Orange Free State Republic. Here my brother was born in 1897. I have in my possession a delightful photograph of the three of us with our African maid, my brother Bill seated on her knee. Prior to this my mother had paid a visit to Scotland. While living with her sister, Jeannie at Newmilns in Ayrshire, my sister (Fay) was born.

In 1897, my mother's two elder sisters, Aunt Mary Ann and Aunt Jen, made a trip to Scotland taking my sister and I with them. They deposited us with Grandpa and Grandma Watt in New Deer, where we lived for about 18 months. I actually started my schooling in the village school there. When we left New Deer, en route for South Africa, we stayed for a while with another sister of my mother, Aunty Nan, who was matron of a Girls' Industrial School in Spittal Street, Stirling. Here our South African clothing was restored to us. We then reverted to socks and shoes instead of coarse woollen stockings and boots.

When the Anglo-Boer War became imminent our family returned to Port Elizabeth from Kroonstad. True to the family style, we were soon on our way elsewhere, this time to Queenstown, Cape Colony. Here my father managed the Drapery and Soft Goods Department of Mr. Tom Bailey. Tom was the father of Sir Abe Bailey. He was a Yorkshireman, wore veldskoene without socks, always had a bible in his pocket and addressed every adult male as "*Mister*".

In Queenstown our family was very much in touch with the panoply war and its excitements. I remember two very large tent encampments. Indeed, I attempted to run away with one regiment. I think it was the 1st Highland Light Infantry. They had dressed me up in uniform complete with glengarry bonnet, but no side arms. I was walking jauntily down the main street when my father spotted me. He said, "*What are you doing?*" I replied "*Nothing*". He replied, "*You'd better do it at home*", and so I did, all 9 years of me.

I also saw a good deal of the Boer War in Graaff Reinet where my mother and us three children resided for a year or two with the Harris Family in Napier Street. During this period my brother contracted diphtheria and my mother and he occupied one room which had French doors opening into the stoep. No one else in the household contracted the infection. My sister and I were sent off each morning with a packet of food and some fluid in a bottle free to wander where we wished. This procedure was admirable for we learnt a lot of biology.

c) Schooling: 1897–1910

- 1897–98. New Deer, Aberdeenshire, Village school. Taught by the same teachers as had taught my father, years before.
- 1898. Mrs. Duncan's School for Boys in Port Elizabeth. Her daughters (Miss Issy, Miss Jeannie and Miss Maggie) assisted her. I have vivid remembrance of Mrs. Duncan and the care with which she taught me to write. The school at this time was conducted in her residence in Cuyler Crescent.
- 1899–1900. In Queenstown, Cape Colony, I attended a small private school run by two Sisters Smith in their cottage. They were very decent souls. On the rare occasions upon which they wished to inflict physical punishment, the culprit was sent into the garden to select a suitable punitive medium. The selection lay between quince and peach. We became connoisseurs of the relative merits of these.
- 1900–1902. In Graaff Reinet, Cape Colony. I attended the Junior School of the Graaff Reinet College. In summer, for the most part, classes were held in the open in the shade of the great eucalyptus trees. I well remember the Sisters Auret who were our teachers.

- 1902–1904. Again at Mrs. Duncan's School, now run by the three sisters. Miss Jeannie had the most influence on my education, especially in arithmetic (written and mental and tables), English, particularly reading aloud and what was known as drill, viz. dumb-bells and Indian Clubs. The school had by this time moved to Pearson Street.
- 1904–1907. High School of Stirling, Scotland. I greatly enjoyed these three years at a magnificent co-ed school strictly 50-50. However, I never shone scholastically at the school. I owe my capacity to learn and speak French to my French teacher (? Miss Hall) and later to Mr. Le Cornu in Port Elizabeth. I was honoured by the Stirling School in being elected an honorary prefect, complete with badge in 1976, 69 years after leaving the school to return to South Africa.
- 1908–1910. Grey Institute High School (now Grey College), Port Elizabeth. I was absent during 1908 by a prolonged illness and convalescence from what I think must have been a bacillary dysentery. None-the-less, I attended Form C (pre-matric) and Form D (matric) in 1909 and 1910, being top of the class in both years. This was quite a different experience from Stirling High School. None-the-less, we had some very dedicated masters. The headmaster was W. Chubb Meredith (known as Dick) who died in my matric year. I delighted in assisting the science master, E.G. Bryant, in preparing his experiments to illustrate his class instruction in chemistry. The classroom was situated in an upstairs room under the clock.

d) Edinburgh University education: 1911–1916

I have always felt greatly indebted to my father for agreeing to send me, in 1911, 6000 miles to study medicine in the University of Edinburgh. This was a double privilege for it enabled me to attend this great cosmopolitan university and also to study medicine there. What a superb opportunity. Incidentally, my father was able to allow me a £5 a month to live on. I did this successfully and owed nothing by 28th March 1916 when I graduated M.B., Ch.B.

In my undergraduate years, I was greatly influenced by Professor Cossar Ewart (Zoology) and Professor I Bayley Balfour (Botany), both incidentally medicals. I was also greatly impressed by my professor of Physiology, Sir. E.A. Sharpey-Schafer, a superb lecturer. In hospital, my outlook was moulded by Professor John Wylie and Professor William Russell, both in Clinical Medicine, and by that incomparable clinical teacher, Professor Sir Thomas R. Fraser. On the surgical side, I did the whole three terms of my Clinical Surgery with Professor Francis Mitchell Caird. He was a magnificent clinical teacher and was a real friend to me. While working with him, I gained the Pattison Prize in Clinical Surgery; this brought me the relative fortune of £16.

I was looking around the surgical side (which was quite *de rigueur* in our time) for anything instructive when I walked into Mr. Hodsdon's theatre to sit down in the gallery. I was immediately approached by Mr. James Graham (his assistant surgeon) who said, "*Are you doing anything special Watt*". I said "*no*". He then said "*We are about to commence an internal appendisectomy under hypnotism and no other anaesthetic. Just sit down on a stool near her head and hold one of her hands and chat to her while the operation proceeds*". This was the one and only operation I have witnessed under hypnotism. It was quite successful.

My own Chief was Dr. Harry Rainy. A bachelor, he was a great humanist and a dedicated physician. At this time, 1915, women students were admitted to non-clinical classes in the university with male students. They did not have this questionable privilege when they attended clinical classes and the wards. Dr. Rainy's ward on the female side was a full ward restricted to woman students only. The only males were Dr. Rainy, his assistant physician and tutor and myself as house physician (I was still a fifth year student). The fifth year was our final year. Our male ward was half a ward on the surgical side, the other half of the ward being medical. During my housemanship, I was found unconscious in my bed and woke up five days later in Sister Cameron's ward, suffering from what was known in those days as lobar pneumonia.

The year 1915 was one of intense and varied effort. At the outbreak of the 1914–1918 war I was a corporal in the Medical Unit of the Edinburgh University Officers Training Corps (E.U.O.T.C. for short). I was placed in charge of the Unit's Office with the rank of Acting Quartermaster-Sergeant. This was despite the fact that I had been unable to attend the Unit's annual summer camp in Aldershot as I was recovering from a gastric

haemorrhage, which occurred during our short Easter Camp at Goblin Ha near Peebles. Be that as it may, my next gastric haemorrhage occurred 50 years later in Plymouth five weeks before we were booked to sail for Australia. This attack was a 'snorter' and put me in hospital for 3 weeks. I have not yet had another gastric haemorrhage although, at the time of writing this, I am approaching my 87th birthday. As soon as my commission as a Lieutenant in the Royal Army Medical Corps (Special Reserve) was gazetted, I joined a group of five others in the same situation, viz. undergraduate officers in the Special Reserve. We formed and ran an Officers Training School, all of our subordinates being fellow students many of whom were senior to us in the R.I.E.

Our summer training camp in 1915 was at Rumbling Bridge where we were attached to the (I think) 52nd Highland Division. Here I had an interesting experience, which happened on one of our field exercises. I was mounted on a high raw-boned horse and my men (all fellow-students) were on foot. I misread my map, which landed them several miles of extra marching. It was a long time before I lived it down. Later in 1915, after we resumed classes, I was assistant house-surgeon to Caird.

[**Note:** Watt doesn't mention in his memoir that after completing his World War 1 military service, he obtained a much coveted position as an assistant to the famed pharmacologist Arthur R Cushny during the 1920-21 season. While completing his term, he obtained the post of Chair of Pharmacology at the University College, Johannesburg in 1920 – thus becoming the third Professor of Pharmacology in South Africa and the first at the institution that would become 'Wits' in 1922.]

e) Postgraduate studies

1927–28. Postgraduate work with Professor Walther Straub in Munich to acquire some knowledge of German and of new research techniques in Pharmacology. I greatly enjoyed my all too short visit to this beautiful and historic city Munich.

1933–34 saw me back in Edinburgh University, this time with a Carnegie Corporation Grant for Postgraduate Study. With this, I was fortunate enough to spend an academic year in my old hospital, the Royal Infirmary of Edinburgh, with the Professor of Therapeutics, Professor Murray Lyon. This enabled me to prepare for the M.D. Clinicals, which I passed top of the list, the only non-clinical candidate taking clinical medicine as his primary subject. I took Pharmacology as my second. During this visit I was admitted a member of the Royal College of Physicians of Edinburgh. Election to the Fellowship followed in 1947.

I took up the clinical study of allergy during my therapeutic studies. I practised this specialty for several years after my return to South Africa. Unfortunately, Military Service in World War 2 put an end to this and I was unable to return to it after my demobilization, four years and one month later.

f) Marriages and Children

First marriage: December 1919 (Baku, Caspian Sea, Russia) to Yelena Timofeyevna Nikonova (deceased June 1979) (a great woman with a fine brain), the elder daughter of Timofey Nikonov and Lubof Alexseyevna. We were married in the Alexsandra Nevski Cathedral. Yelena's father served for 20 years in the Russian Army in Siberia instead of his elder brother who was unable to serve as he had pulmonary tuberculosis. (At this period the eldest son of every family in Russia had to serve for 20 years in the Army.) On demobilization Timofey, who had a degree in classics, became a teacher in a school in Baku until his death in 1918. Children with Yelena:

- Mrs. Yelena N. Breet, born April 1921 in Edinburgh, which she left when 3 weeks old. This was because I was returning to South Africa to assume my appointment as Professor of Pharmacology in the newly established University of the Witwatersrand in Johannesburg. She has three sons.
- Ian B. Watt, born in Johannesburg, December 1924. Professor of Surveying in the University of the Witwatersrand. B.Sc. Engineering (Witwatersrand) and Diploma in Aerial Surveying from a University in Holland. He has three daughters.
- Ludmila M. Watt, born April 1926 in Johannesburg. Career Woman. Started life with B.Sc. (Quantity Surveying) (Witwatersrand). Later she acquired a degree in Psychology. She died in July 1974 in Perth, Western Australia, three months after taking up a post there.
- Alexei M. Watt, born December 1929 in Johannesburg. Is a wizard with figures and accounts. He has four children.

Second marriage: May 1942 (Johannesburg, South Africa) to Betty Lory, only child of James Lory and Beatrice Nightingale. Betty is a very capable woman and has been a real helpmeet throughout our marriage, which still exists after 37 years. Children with Betty:

- Susan A. Watt, born November 1949 in Johannesburg.
- James (Jim) M. Watt, born April 1951 in Johannesburg, is a partner in a law firm of solicitors.

James (Jim) M Watt, Professor Watt's youngest child

g) Military Education and Service

- 1908–1910. Grey Institute and Cadet Corps, Rank Colour Sergeant.
- 1912–1914. Officers Training Corps, Edinburg University.
- 1914–1918. Commissioned Service, Royal Army Medical Corps. 3½ years full-time service in Mesopotamia, India, Persia, Caspian Sea, Baku, Caucuses. Retired List with rank of Major.
- 1922. Service in the South African Medical Corps during the Revolt (so called) as (1) As medical officer to "B" Squadron of the Imperial Light Horse; and, (2) on the staff of General Vanderventer [sic]at Boksburg.
- 1939–1945. Full-time Defence Headquarters Pretoria, in charge of Subsection M3 of the Medical Section. M3 = Medical Suppliers, Medical Ledger Accounts and Medical Transport.
- 1948. Placed in the retired list of the Union Defence Force with the rank of Full Colonel.

PART 3: REMEMBERING MY DAD by James M Watt, September 2012

I am the youngest child of the second marriage of my father John Mitchell (Ian) Watt. He was born in 1892 and I was born in 1951.

I will set out some of my memories of my father and also try to provide a bit of insight into his domestic life and his life after Wits. On reflecting about my father, I have come to the conclusion that he was an enigma in many ways. He was highly intelligent and a true academic. He could be absolutely charming when he wished. At the same time he had a volcanic temper, could sulk for days if he did not get his way and could be totally dogmatic in unjustified circumstances. He was a great debater and arguer. He hated losing an argument. Like many men who have had extensive power over a period of time he had infallible belief in his own knowledge and sagacity and tended to subscribe to the theory of "*I have said it so it must be true*". Needless to say this was not always true and when I grew older it was my duty, and indeed pleasure, to prick a few of these bubbles. Instead of taking this well, his mouth would purse up and he would become truculent and sulky.

Lest the above comments be seen to be excessively negative, I hasten to say he could be caring and generous and did his utmost to feed, clothe and educate my sister and me to the very best of his ability. I used to spend time in the garden with him, and learnt the rudiments of the home handyman and maintenance of a car. He took us to all sorts of interesting places. I have fond memories of visiting The Wilds, fishing in Florida Lake and holidays at Waterval-Onder, where the whole family would laze in and around the Elands River or await the arrival of the next steam train

He was a man of very high moral character and I never saw him try and do anyone down. He held tremendous respect for women and girls, at a time when they may have been seen to be second best. Not so with Dad; if anything they were better than mere males. He would have been enormously proud and flattered that Dr Vivienne Williams was interested in his professional work and life, after so many years. His often stated view was that he was a 'Modernist'. Indeed, for a man with a Victorian upbringing this was probably true. He always tried to embrace the latest technology or ideas. Contrary to the parental practices of our childhood, my sister and I were taken everywhere and this resulted in us meeting many interesting people. From an early age we dined with our parents, whether they were entertaining or not, and in turn this resulted in us being invited, with our parents, to visit those guests at their homes. He had the odd quirky interest such as his love of aeroplanes, to the extent that if he

heard one he would rush outdoors to look at it. He was a young man when they first appeared and I think he could never get over the wonder of flight.

Dad would stand up for the underdog and champion what he thought was right. During the 1922 revolt, he was mobilised. A report came in of a detachment of troops from some regional centre that was camped in unsanitary conditions along with a dead horse. On arrival, Dad asked to be taken to the commander, who transpired to be a very large unshaven man lounging under a tree with some of his men. The stench from the flyblown horse was appalling and Dad told him the horse needed to be buried, latrines dug and bathing facilities provided. The commander responded that they were not there to undertake such tasks and that they were there to shoot rebels. Dad replied that this might be laudable but nonetheless the health and wellbeing of his men required the tasks to be undertaken and that he must insist. The commander got up and moved menacingly towards Dad who simply stood his ground and looked the man in the eye. He said: "*You know I am right and you must do it*". After staring at Dad a little longer the commander turned aside and ordered his men to bury the horse and dig latrines.

Another example concerned some Italian prisoners of war during World War II. Apparently, they were in appalling conditions with no medical supplies. Dad was in charge of medical supplies for the South African forces and suggested that captured medical supplies be made available to the Italians. There was a huge ruckus with his counterparts in Pretoria, but he prevailed and the prisoners got the supplies.

He was a very dapper dresser. His 'party' clothes were a full set of Scottish regalia including tweed jackets, Balmoral bonnet and sporran. He would sometimes go for a Sunday afternoon promenade kitted out in this way. The fact people stared at him suited him down to the ground. He would throw out his chest and strut along. Dad would not know embarrassment if it got up and bit him on the nose… I was also togged out in a kilt. I was certainly proud of my Scottish heritage and interested in its lore, but I was not keen to be out and about in a kilt. I hoped people might not notice I had a skirt on. I regularly wore a kilt until I was about fourteen.

Dad had tremendous enthusiasm and energy. He pursued his academic work with great love and diligence. I never once heard him complain that he had to go to work. He just loved it. At home in Johannesburg he had three places of study being respectively the Study, the Office and the Den. The house was crammed with books on all topics He had many interests outside his professional life including philately, ornithology, gardening, botany, St John's ambulance and photography. Those endless spools of Cine movies he took with the Super 8 camera that he was given on retiring from Wits will never be forgotten!

He read the daily newspaper from cover to cover each day and listened to the news on the radio. He subscribed to *Time* magazine and once again this was devoured. He was a great correspondent, both professionally and socially and so there was always mail for him to read in the evenings. He never seemed to tire. He kept up to date with current affairs and had a very broad general knowledge about many things, including science and history, and things unrelated to his academic work. He would hold forth authoritatively on things he knew little or nothing about.

Meal times were interesting. As well as mum and dad there was my sister Susan and my mother's mother, Beatrice. There was always debate or discourse on wide ranging topics from the universe to history or politics. Dad was a great raconteur with many stories of his childhood, days as a medical student and his service during World War I.

From as early as I can remember my sister and I would go into the 'Lab' with Dad on Saturday mornings. We loved these visits and had the run of the place. We would visit the animal house on the roof presided over by Lennox the animal attendant, or chat to the other staff and look at the experiments they were doing. In the early days there was EL Nolan, my father's right hand man. Dad and he were devoted to each other and Dad was quite distressed when he died. My great passion was the technicians and the workshops. Initially CR Palm, and then WG Dunn and JAC Graham, pandered to my wish or project of the day. I watched them using the machines and tools and would do various things myself. It created a lifelong interest and today I have a workshop and technical hobbies. If we were lucky, on occasion Dad would buy us an ice-cream or soft drink on the way home.

Father presided over the Lab like some mediaeval fiefdom. I think the staff liked and respected him and we socialised with many of

them and their families. He was always very respectful to all people that he came across. He would make instant friends with caretakers, cleaners, gardeners, ship stewards and the like. One could be cynical and say that this resulted in plants for the garden, an extra filing cabinet for his office, small "foreign orders" from the workshops or early morning cups of tea when on board ship. However, this was not the reason for his interest, and he was genuinely fascinated in people, their lives and their families.


THE MEDICINAL AND POISONOUS PLANTS OF SOUTHERN AFRICA

An Account of their Medicinal Uses, Chemical Composition, Pharmacological Effects and Toxicology in Man and Animal

JOHN MITCHELL WATT, M.B., Ch.B.(Edin.)

MARIA GERDINA BREYER-BRANDWIJK, Phil. doctor (Utrecht), Apothekar (Utrecht)

E. & S. LIVINGSTONE

The Medicinal and Poisonous Plants of Southern Africa

He always had academic projects on the go. He wrote the second edition of his book *The Medicinal and Poisonous Plants of Southern and Eastern Africa* together with Maria Breyer-Brandwijk. He and "Aunty" Ree would spend numerous evenings in the Den working on it. I think it took them something like fourteen years to get it done. At the same time he would be writing other scientific papers.

He could be very pompous. I remember when I was seven or eight that some child was visiting me at home. My father arrived and the boy said: "*Hello Mister Watt*". Dad said: "*I am not a surgeon so I am not Mister. You can call me Professor, Doctor or Colonel.*" Thinking of this also reminds me of a time at school in the fifties. Many children had fathers who had served in World War II. One of the school bullies was holding forth one day asking kids what rank their farther had achieved. Most were privates with a corporal or two it seemed. In turn he announced that his father was a sergeant. He turned on me saying he guessed my father was not a sergeant. I told him he was a colonel. Colonel? What's that? I explained that after sergeants came sergeant majors, second lieutenants, lieutenants, captains, majors, lieutenant colonels and finally colonels. He looked at me incredulously like I was an idiot or liar or probably both. In any event it warranted a beating and I was counselled never to say such a thing again. In time I learned to be a bit embarrassed at my father's stature and achievements and would simply say he worked in a university when his profession was raised, only expanding on this to people who might be interested.

Dad retired from Wits at 65 in 1957. He did not want to, but I think there was not much option in those days. He certainly needed a job because he had a young family to support. For a while I think he may have received some grant, or similar, to work on his book. He also had a stint as a doctor treating pensioners. In 1961, South African independence was coming and Dad announced that he thought it time to migrate. At nearly seventy years of age this was fairly courageous. They decided to go to Britain as all my grandparents had come from there. Everything was packed up and the house sold. We, including Gran, sailed for Britain. Dad had no job to go to so things were up in the air as to where we would live.

My mother Betty was Dad's second wife and 22 years younger than him. She was a highly intelligent woman who had matriculated and wanted to go to university. Her father refused and sent her to secretarial college instead. There is no doubt that she was the power behind the great man. She was an excellent housewife and managed the family finances. Dad was inclined to let money run through his fingers. Mum realised that Dad's working life was limited. They had started out without much at all following the divorce of my father from his first wife. Money was always tight but it was marvellous how she managed. She was equally courageous heading into the unknown.

We stayed in Edinburgh for a couple of months where Dad conferred with his publisher and put the finishing touches to his book. In the meanwhile, he searched for a job. I am unsure how it came about but he obtained a job at Plymouth Technical College lecturing in biology. Sue and I were enrolled in school and my parents bought and renovated a home. To the dismay of the locals they had the fireplaces bricked up and central heating installed. "American heat" was how one neighbour described it. As usual, Dad

kept writing academic articles and pursuing his interests and hobbies. Everyone made new friends and we had quite a good time albeit in a more austere life style than we had in Johannesburg. Mum was dreadfully homesick but made the best of everything. The one thing we never got used to was the weather.

In 1965, my parents decided to pack up and head for Australia. In those days one could get assisted passages to Australia for ten pounds per adult and children free. To my parents' great disappointment, the authorities ruled that Dad was too old so they had to pay full fares for the whole family: Gran, Sue and me. Dad was fortunate to be offered a job at the University of Queensland in Brisbane. Dad knew Professor Budtz-Olsen and I think Budtz had studied under him at some time. I cannot remember if it was meant to be full-time, but there was considerable consternation when they worked out how old Dad was on our arrival. In any event, he got a job as a part time demonstrator in the Physiology Department that he held down with gradually decreasing hours until he was about 82 years old.

Sue and I went to a new school again. In due course I joined the cadet corps which pleased Dad immensely. Dad continued with his writing and his usual thirst for knowledge. He took a keen interest in everything that was going on around him. My parents quickly made a pleasant group of friends and socialised quite a bit.

When I left school, I had matriculated but announced I was not going to university. My mother was horrified. Dad, very cleverly, just smiled and said nothing. I worked for a few years at a number of jobs including as a cellar man in a hotel, driving a truck for the hotel and working as a Fitter's Assistant in the engineering workshops of The Egg Marketing Board. Dad showed a keen interest in the finer points of beer reticulation and the boilers and giant refrigeration plant at the Egg Board. He would always ask what job I was doing and say that was great. Eventually I decided to enrol in law and the interesting situation developed where I would take Dad to and from the university where he still worked (uncharacteristically, Dad had sensibly given up driving some time before).

When he had finally retired from paid work he still continued writing, kept up his busy correspondence and pursued his hobbies. He however, slowed down very considerably and was not very well during the last year or two of his life.

Dad died aged 87 after living a very full and successful life. He was my Dad and it would be great to be able to sit down and have a chat with him now if I could.

REFERENCES AND ENDNOTES

1. Watt succeeded Professor EP Stibbe as Dean of the Faculty of Medicine of the then University College, Johannesburg, in September 1922 after Stibbe was forced to resign in June 1922. However, Wits was only invested as the 'University of the Witwatersrand' on 4 October 1922. Hence, Watt was technically Wits' first Dean of the Medical Faculty.
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From the Curator's Desk
Highlights of the Adler Museum of Medicine 1962 – 2012

Sepeke Sekgwele, BA (Limpopo)
Professional Officer (Collections), Adler Museum of Medicine

In celebration of the 50th anniversary of the Adler Museum of Medicine, an exhibition, which honoured the founders, was displayed in the Museum together with a brief chronology of the history of the Museum. This article expands on that chronology and documents some of the history of this important institution.

THE ADLER MUSEUM OF MEDICINE: A CHRONOLOGY

Until 1961 very little had been done in South Africa to collect, document and preserve the history of medicine in this country. While several cultural history museums had small collections of medical, dental and pharmaceutical artefacts, there was no museum in South Africa devoted to the history of medicine and allied health sciences. Dr Cyril Adler, a Wits Medical School graduate who had remained very close to his alma mater throughout his career, decided to rectify this shortcoming.

Dr Adler had always been interested in the history of medicine and collected items of medical interest during the time he was in private medical practice, while Esther Adler had majored in history in her BA degree. She taught history before she retired in 1962. They both wanted to preserve material on the history of medicine in South Africa and medicine in general, for the benefit of future generations.

2 April 1962 The Adlers' vision to establish a medical museum was realised when the Museum of the History of Medicine was launched in the Wits Great Hall. The event was attended by 900 people.

The Dean at the time, Professor EH Cluver, paid a special tribute to Cyril and Esther Adler and the Museum was officially inaugurated when Major-General AJ Orenstein delivered the inaugural address: *Mine eyes have seen*. The event was jointly sponsored by the Medical Graduates' Association (MGA) and the Chamber of Mines. The MGA was instrumental in adopting the idea of establishing a museum and supporting the efforts of the Adlers.

3 April 1962 The Museum held its first exhibition of medical artefacts in the foyer of the Johannesburg Public Library. The exhibition was made possible through the generous assistance and co-operation of the Africana Museum and the South African National War Museum and was opened by the mayor of Johannesburg, Councillor Keith Fleming.

September 1962 The Wellcome Trust awarded a travel grant to Dr and Mrs Adler to visit and study historical museums in Britain and Europe. The visit led to the Museum's second exhibition held in July 1963: *The influence of Italian Universities on Medicine* which was displayed at the 44th Congress of the Medical Association of South Africa.

The exhibition was later shown in London in 1963. It was the first time that such an exhibition went overseas. It was officially opened by the South African Ambassador in London, Dr Carel de Wet, at the Claire Wand Gallery of the Nuffield Library in the British Medical Association House. It was later shown at the British Medical Association's Annual Meeting in Manchester. The exhibition was made possible by sponsorship from Mr Jack Tannenbaum of Adcock Ingram.

1964 The Museum, which began as a small collection of medical objects and books in the home of the Adlers, was moved to an apartment provided by Wits adjacent to the Medical School at 3 Safine Court, Esselen Street, Hillbrow. For the first time, the collection was displayed to its advantage in three small rooms.

1965 A large number of rare books was presented to the museum by Dr Morris J Cohen which became the nucleus of the present collection of rare books.

1966 The increasing collection outgrew the apartment in Safine Court.

In recognition of the importance of the Museum to students and scholars in the field of medicine, the South African Institute for Medical Research (SAIMR) offered the Adlers the Director's House on its grounds

in Hospital Street, Hospital Hill, Johannesburg, to accommodate the expanding Museum. The building, which was declared a national monument in 1991, and the house, designed by Sir Herbert Baker, was the last public building he designed before he left South Africa in 1912. The Director's house was built during 1912 to 1914 and became the residence of the directors of the SAIMR until 1959.

13 October 1966 The Board of the Museum of the History of Medicine held its first meeting at the Medical School. The first Board members were: Professor François Daubenton, Dean of the Faculty of Medicine and Chairman of the Board, Professor James Gear representing the SAIMR, Professor GR Bozzoli, Mrs Esther Adler, Dr Cyril Adler and Dr Harvey Cohen representing the Medical Graduates' Association.

1967 Professor DJ du Plessis, Vice-Chancellor of Wits, unveiled a plaque expressing Wits' appreciation to the SAIMR for providing premises for the Museum of the History of Medicine at the Director's House.

18 April 1967 The first AJ Orenstein Lecture on the History of Medicine was delivered by Dr Maurice Weinbren titled *The Centenary of the birth of Marie Curie*. Major General AJ Orenstein played an important role in the founding of the medical services of the South Africa mining industry. The lecture was initiated at the suggestion of the Chamber of Mines of South Africa and lectures were arranged in alternate years by the Chamber of Mines and the Museum.

Cyril and Esther Adler at the opening of the Museum in Safine Court, 1964

The first Board meeting, 1966. Professor François Daubenton, Professor James Gear, Professor GR Bozzoli, Board secretary, Mrs Esther Adler, Dr Cyril Adler and Dr Harvey Cohen

An African herbal shop was erected in the Museum complex, surrounded by walls decorated in the 'Ndebele's fashion' and containing 'muti' made of roots, barks and berries. The original shop, 'The Afriken Matlala Chemist', was sponsored by Dr and Mrs Max Adler and its contents were donated by Dr Ramoheme Motsepe.

30 April 1968 The official opening of the Museum of the History of Medicine in its new premises in the Director's House at the SAIMR, took place. It was opened by Professor SF Oosthuizen, President of the South African Medical and Dental Council.

A reconstruction of a 1905 dental surgery, previously owned by Dr Aurelius Percy George John Kincaid-Smith, the first licensed dentist in Johannesburg, was added in the grounds of the Museum.

1969 In July an exhibition on the *History of Diabetes* was arranged by the Museum at the 48th Medical Congress held in Pretoria.

1970 The 1970s were very productive. This was, to a considerable extent, due to Dr Adler's meeting Mr Norman W Nossel, then managing director of Mer-National Laboratories and subsequently Chief Executive of Adcock Ingram Group of Companies. Mr Nossel's interest in the preservation of man's medical heritage led to generous financial sponsorship of a great number of projects from the mid-1970s onwards.

The Afriken Matlala Chemist

He was a great supporter of the Museum to whom a plaque in the foyer is dedicated.

Mrs Esther Adler, Honorary Curator of the Museum of the History of Medicine, was elected an Honorary Life Member of the Medical Graduates' Association in recognition of her work done for the Museum. She was the only non-medical graduate of the University to be so honoured.

20 September 1972 Major General Orenstein died on 7 July and the lecture changed to the AJ Orenstein Memorial Lecture. The first lecture was delivered by Emeritus Professor John Mitchell Watt titled *African Medicine from Primaeval to Twentieth Century*.

The lectures are published in the *Adler Museum Bulletin* and the lectureship remains one of the highlights of the University's annual programme of prestigious eponymous lectures.

The early 20th century Johannesburg 'chemist, druggist and apotheker' shop was transplanted from its original site in Marlborough House, Doornfontein, Johannesburg to the grounds of the Museum and was officially re-opened by Professor Ellison Kahn, Deputy Vice-Chancellor of Wits. The establishment of the pharmacy was made possible by a handsome contribution by Mr and Mrs HL Karnovsky of Johannesburg. The interior and contents of the pharmacy were donated by a number of old pharmacies in Johannesburg and neighbouring Reef towns.

25 June 1974 The Adlers officially handed the Museum over to Wits. It was renamed the *Adler Museum of the History of Medicine* as a token of the esteem in which the founders were held by the University.

In addition, Wits bestowed the degree of Doctor of Laws (*honoris causa*) upon Dr Cyril Adler and the degree of Doctor of Philosophy (*honoris causa*) upon Mrs Esther Adler. This took place during a special graduation ceremony of commemoration of the 50th anniversary of the award of degrees of Bachelor of Medicine and Bachelor of Surgery by the University.

Dr Cyril Adler was appointed Honorary Director of the Museum by the University and Mrs Esther Adler was appointed as the Museum's Honorary Curator, a post she remained in until her death in 1982.

In September Dr Adler was invited by the Chicago University Medical School, the Department of the History and Philosophy Museum and the Society of Medical History of Chicago, to deliver lectures in the Hall of Fame of the Museum of Surgical Sciences – International College of Surgeons in Chicago, USA. Both the Adlers, on this occasion, were elected to honorary membership of the Society of Medicine in Chicago.

February 1975 The *Adler Museum Bulletin* was initiated by Mrs Rose Melzer who edited it until her retirement in 1991 and served in the capacity of editorial consultant until her death in 1992. The Bulletin arose out of the need for the Museum to

Dental display

Pharmacy

produce an annual report, and also to provide information about the Museum and the history of medicine in general.

Mrs Adele Kahn was assistant editor from 1978 to 1986. She also assisted her husband, Professor Ellison Kahn, during his position as Chairman of the Board of Control of the Adler Museum from 1977-1981. The early issues of the Bulletin were sponsored by Mr Norman Nossel. The Bulletin was published 3 times a year until 2001. Since 2002, two issues have been published annually. The *Adler Museum Bulletin* continues to publish papers in the field of historical research in medicine and allied health science and is circulated worldwide.

The original frontage of Mr Reynold's optometry shop which was built in 1903 and located in Eloff Street, Johannesburg, was donated in 1975 to the Museum by Mr James Hall, founder of the James Hall Transport Museum in Johannesburg. Mr Reynolds was one of the first optometrists in Johannesburg. The Association of Optical Manufacturers donated money towards the cost of the reconstruction and a number of individual optometrists generously contributed further amounts to cover part of the balance of expenses.

Dr John Baldwin Smithson Greathead's original consulting room (1898) was donated to the Adler


ADLER MUSEUM OF THE HISTORY OF MEDICINE
ADLER MUSEUM VIR DIE GESKIEDENIS VAN DIE GENEESKUNDE

First issue of the Adler Museum Bulletin


Rose Melzer


Adele Kahn

Museum by his grandson, Dr MM Greathead, to commemorate his contribution to medicine. The surgery was furnished in the style of that period with a large roll-top desk and featured some of the equipment used by doctors in the 1900s. This included a set of obstetric instruments in a portable pouch, dated 1882, which was slung over the doctor's shoulders when he travelled to visit his patients on horseback.

From 14 to 18 July the Museum participated in the Jubilee Congress of the Medical Association of South Africa by mounting an exhibition of photographs of past presidents of MASA as well as rare books and medical medallions, in the Wartenweiler Library at Wits.

1976 The Museum participated in the Academic Day of the 1976 Pharmaceutical Society Conference which brought together four allied sciences – pharmacy, medicine, dentistry and veterinary science. The Museum presented an exhibition of the history of medicine and pharmacy at the President Hotel, Johannesburg and a special issue of the Bulletin was published to mark the occasion.

June 1977 Busts of Drs Cyril and Esther Adler were unveiled by the then Vice-Chancellor of Wits, Professor GR Bozzoli, at the centenary celebrations of the Royal Society of South Africa. The busts were sculpted by Naomi D Jacobson.

1978 The Dental Museum, originally housed in the Dental School of the University, was loaned by the Dean of the Faculty of Dentistry, Professor JF van Reenen, to the Museum.

1980 The first colour information brochure of the Museum, which aroused great interest, was printed by Mr Norman Nossel of Adcock Ingram. The brochure

was distributed to libraries and museums and was on sale to visitors to the Museum.

Dr Adler was appointed as a member of the Board of the Faculty of Medicine, Wits. This further cemented the bond between the Medical School, the University and the Museum.

24 November 1981 The Convocation of the University of the Witwatersrand conferred the Wits Alumni Award of Honour to Dr Cyril Adler. The award was designed to honour a graduate of the University who has rendered exceptional service to the community.

17 March 1982 The Museum's 20th anniversary celebration took place. Professor Phillip Tobias gave the official address and opened four new exhibition rooms in the Museum: *Art and Medicine Gallery*, *Electricity in Medicine Collection*, the *Sangoma Hut* and the main exhibition room named the *Esther Adler Room*.

25 December 1982 Mrs Esther Adler died in Johannesburg after a long illness. She had dedicated 17 years to the founding and establishment of the Museum.

3 November 1983 a ceremony was held in the Museum at which a *Festschrift* was presented to Dr Cyril Adler by Dr Francois Retief, Director-General of Health and Welfare. The *Festschrift* was published in honour of Dr Adler on the occasion of his 80th birthday.

1985 marked the 10th anniversary of the *Adler Museum Bulletin*. The Council of the Medical Graduates' Association of Wits elected Rose Melzer to honorary life membership as a tribute to her dedication to the Museum, and her contribution to the preservation of the history of medicine in South Africa.

28 October 1987 The 25th anniversary of the Museum was celebrated with a special silver jubilee lecture which was organised by Wits and held in the north auditorium of the SAIMR. The lecture was delivered by Dr Cyril Adler, and titled *Caricatures in medicine and pharmacy*.

5 November 1988 Dr Cyril Adler died at the age of 85. His love of and dedication to the preservation of medical history, and the founding of a museum as a South African treasure, was widely acknowledged.

25 October 1989 A memorial lecture for Cyril Adler was held. Professor JHS Gear was the main speaker. The title of his lecture was *Highlights of medical research in southern Africa*. The event attracted a large audience which came to pay tribute to the late Dr Adler and the legacy he left behind.

1997 The Museum was threatened with closure because of the University's financial difficulties. The Dean of the Faculty of Health Sciences, Professor Max Price, and the Board of Control of the Museum, motivated to save the Museum. Letters of support were received from supporters both nationally and internationally.

At a University Council meeting on 22 August 1997, it was resolved that the Museum should not be closed, that responsibility would be devolved to the Faculty of Health Sciences which would have ownership of the Museum.

Mr HT Reynolds Optician

Doctor's consulting room, c1900

1999 The Museum was renamed the *Adler Museum of Medicine*. It aimed to reflect all modalities of medicine in South Africa and to increase its activities to serve a wider audience in its proposed new premises at Wits Medical School.

February 2001 The Museum was relocated to the foyer of Wits Medical School, 7 York Road, Parktown.

27 August 2002 The Museum was opened in its new premises, coinciding with its 40th anniversary. It was formally opened by the Dean of the Faculty of Health Sciences and Chairperson of the Board of the Museum, Professor Max Price and Professor Phillip Tobias, a long serving member of the Board of the Museum, who cut the ribbon and declared the Museum officially open.

The Museum was then in a position to provide a service to the students and staff of the Faculty as well as a broader audience. Educational programmes for school visits and interested groups were developed and attendances increased from this time. Its new location made it more accessible to schools, tourists and the general public.

Professor Phillip Tobias at the Museum's opening at Wits Medical School, 2002

Mr Norman Nossel, Professor Max Price, Dr Lelong Immelman

2003 The museum initiated temporary exhibitions linked to the Graduate Entry Medical Programme (GEMP) to augment and complement the teaching of the Faculty. The exhibitions included clinical descriptions of the diseases, its history, and treatment in different medical modalities and social and economic implications. Temporary exhibitions rotated regularly and were supplemented with items from the collection from then on. These included the *History of Malaria* and the *History of Cardiology*, which further exhibitions being researched.

2004 The existing database was replaced with a new accessioning system. Artefacts extraneous to the needs of the Museum were disposed of.

2005 Educational worksheets were developed for school learners to complement and augment primary and high school curricula. These now form part of school tours to the Museum and are continually upgraded and new worksheets developed to accompany temporary and permanent exhibitions.

A temporary exhibition on the *History of Tuberculosis* was researched, designed and conceptualised by Professor Mary Edginton together with the Curator.

A major donation: the *Asher Dubb history of medicine stamp collection*, was donated to the Museum by Professor Vivian Fritz.

65% of the Museum's collection was relocated from rooms at the NHLS in Hillbrow to a storeroom on the Wits Education Campus.

2006 The Dean, Professor Max Price, supported the initiative of the Curator and the Board of Control to start a focused art collection dealing with health and social issues which would be of specific interest

to health sciences students and a wider audience.

The first artist to be invited by the Board of Control of the Museum to create an installation in the Medical School foyer was Churchill Madikida. He used objects from the storeroom of the Johannesburg Hospital to create a hospice-type installation entitled *Status II*.

The second art commission was a sculpture by Walter Oltmann titled *Double Helix*. The sculpture depicts the physical interaction between a specific DNA-binding protein, shown as two separated ribboned chains, and DNA, depicted as a section of DNA double helix in the centre of the sculpture.

The mezzanine level of the Museum which was used as a storage area was converted into a display space, primarily for exhibiting works of art, posters and similar material. In addition the Museum obtained the space adjacent to it which was previously occupied by the Electron Microscope Unit, allowing more display area.

8-14 January 2006 An exhibition of hominid and associated fossils from the Cradle of Humankind World Heritage site, as well as the world famous Mrs Ples and the Taung child, never before exhibited together, with dinofelis (sabre tooth cat), were exhibited in the Museum to coincide with the symposium *African Genesis* arranged by the School of Anatomical Sciences.

A new logo was designed and replaced the original one designed in 1962. The logo was generated from a project set by the Witwatersrand Technikon's Graphic Design Unit and resulted in several designs from which a winner was selected.

Churchill Madikida: Status II, 2006 (detail)

7 July 2008 The exhibition *Asbestos: wonder fibre – serial killer?* was opened by attorney Mr Richard Spoor. The exhibition was researched and designed by Mrs Jemima Cantrell of the National Institute for Occupational Health and Professor Tony Cantrell.

An exhibition of photographs by David Goldblatt, taken in Australia and South Africa, which highlight the devastation asbestos mining has caused to the people involved in mining operations, their families, and the environment, was shown and the collection was subsequently donated to the Museum.

An updated Museum brochure was published and the website upgraded.

18 March 2009 The exhibition *Health and Health Care under Apartheid* was opened in the Museum by Deputy Chief Justice Dikgang Moseneke, Chancellor of Wits, as part of the programme: *Ethics alive: yesterday, today and tomorrow*, co-hosted with the Steve Biko Centre for Bioethics. The exhibition was researched and compiled by Dr Simonne Horwitz and the Curator. A publication accompanied the exhibition.

2010 To coincide with the 2010 FIFA World Cup South Africa™, the Museum hosted Professor Jirí Dvorák, FIFA Chief Medical Officer and Chairman of F-MARC (FIFA Medical Assessment and Research Centre) presented the AJ Orenstein Memorial Lecture.

The exhibition *Health and health care under apartheid* was loaned to the Universities of Cape Town and Stellenbosch.

Dr Joseph Teeger at the 50th anniversary celebration

Dr Lelong Immelman, Rochelle Keene, Professor Ahmed Wadee, Sepeke Sekgwele, Cheryl-Anne Cromie: past and present staff with the Dean of the Faculty of Health Sciences at the 50th anniversary celebration. The busts of Cyril and Esther Adler, founders of the Museum, are on the left.

2011 A new exhibition on the history of malaria: *Malaria in Context* was opened on 26 July 2011 by Yvonne Chaka Chaka, President: Princess of Africa Foundation, UNICEF and Roll Back Malaria Goodwill Ambassador, UN Development Programme-MDG, Envoy for Africa UAM Champion. The exhibition was researched and prepared by Professors Maureen Coetzee, John Frean and Dr Liz Thomson and curated by the Museum's Curator. The exhibition was subsequently translated into French and this version travelled to the DRC where it was exhibited by MSF (also sponsors of the exhibition) as part of an advocacy and treatment programme.

14 August 2012 A permanent exhibition *Poliomyelitis: The dread of yesteryear* was designed and installed. It was opened by Professor Barry Schoub, former Executive Director, NICD, NHLS and Professor of Virology, University of the Witwatersrand who delivered a talk titled *Polio eradication*. The exhibition was researched by the Museum's Curator.

17 October The Museum celebrated its 50th anniversary with an exhibition depicting its highlights from 1962 to 2012. Dr Joseph Teeger, a 1951 Wits medical graduate and a former board member of the Adler Museum of Medicine, delivered a speech on the history of the Museum.

A groundbreaking permanent exhibition, *Confronting HIV/AIDS*, researched by Dr Simonne Horwitz, Professor Maria Papathanasopoulos and the Curator, was completed. A publication accompanied the exhibition.

The Museum arranges regular public lectures, tours and exhibitions and provides excellent facilities for medical historical teaching and research.

The Museum's library of rare books and a significant history of medicine reference library is frequently used, as well as the Museum's interesting archive files which includes biographical and subject archival records. Exhibitions are loaned out increasingly and the number of visitors has increased significantly over the past years.

The Museum continues to be a valuable asset both in the field of medical teaching and research and as a Museum of interest to the general public.

DR CYRIL ADLER

Cyril Adler was born in Johannesburg on 17 September 1903 and died on5 November 1988 in Toronto, Canada, while on a visit to his children and grandchildren. He was the fourth of six sons of Herman Adler, one of the early Rand pioneers who emigrated from Lithuania towards the end of the 19th century, and Helena Lipschitz. Three of his brothers also became doctors.

Cyril matriculated from Marist Brothers College, Johannesburg in 1920. He qualified in medicine

(MBBCh) at Wits in 1933 as the Medical School's 173rd graduate. He was active in student affairs as Chairman of the Student Union in 1930 and President of the Wits Student Representative Council in1931. He subsequently maintained his links with Wits, serving for a number of years on the Council of the University and its Executive Committee and on the Wits Convocation of which he was elected President in 1956.

After a period in general practice (1934-1942), he served in the SA Medical Corps from 1942-1946 as Head of the Departments of Physical Medicine at Johannesburg Military Hospital and its auxiliary hospitals.

He registered as a specialist in physical medicine in 1946 and obtained the Diploma in Physical Medicine (DPhysMed) from Wits in 1948. He was an honorary lecturer and examiner for the Wits Department of Medicine and Surgery (1943-1947). He was appointed as a board member of the Faculty of Medicine in 1980.

Dr Adler received numerous academic honours during his long career. For example, in 1966 he was made an Honorary Fellow of the American College of Angiology and in 1976 he was elected a Fellow of the Royal Society of South Africa. He was also a Fellow of the Royal Society of Medicine, England, and a member of numerous professional societies locally and overseas, among them the Worshipful Society of Apothecaries, Faculty of History and Philosophy of Medicine and Pharmacy, London; the British Society of the History of Medicine and the French Society of the History of Medicine.

For more than 40 years Dr Adler served the Medical Association of South Africa (MASA) of which he was an honorary life member. He became President of the Southern Transvaal branch in 1956 and was a member of the Federal Council for 12 years. His services to the Association were recognised when he received its Bronze Medal for Meritorious Service. In 1977 he became the first recipient of the Pro Meritis Award of the MASA 'for his outstanding contribution to the advancement of medical science and the art of healing with special reference to his work regarding the history of medicine'.

When the collection of the Museum was handed over to the University, Wits honoured him with an Honorary Doctorate of Laws (LLD) and appointed him honorary director of the Museum which was renamed the Adler Museum of the History of Medicine in 1974. He published a number of articles in the *Adler Museum Bulletin* on the history of medicine and in the *South African Medical Journal*.

DR ESTHER ADLER

Esther Bessie Cohen was born in Bethal in 1906 and matriculated from Jeppe Girls High School, Johannesburg, in 1923. She received a BA degree from the University of the Witwatersrand in 1926 and a teacher's diploma in 1927.

She married Dr Cyril Adler in 1934 and they had four children. She taught at various schools in Johannesburg until she retired in 1962. It was then that she joined Cyril in a venture to establish a museum of the history of medicine in Johannesburg.

She was honorary curator of the Adler Museum of Medicine from 1978 until she died on 25 December 1982. She was responsible for cataloguing books, the description and arrangement of archival materials and displays of historical medical objects. She was capable, competent, confident and charming, and her outstanding service to the Museum was recognised by the award to her of honorary life membership of the Wits Medical Graduates' Association in 1970, the only occasion on which this distinction has been achieved by a graduate outside the field of medicine. Wits honoured her with the degree of Doctor of Philosophy in 1974 in appreciation of her service.

She was a member of the Royal Society of South Africa from 1979 and nominated "Woman of the Year" by The Star in 1978 for her efforts to preserve the "story of medicine in South Africa for posterity". She was also recognised outside the country. She became a member of the Royal Society of Medicine in 1973, London, in recognition of her pioneering work and dedication as the co-founder and honorary curator of the Museum. She was a member of the Worshipful Society of Apothecaries, London. She received various medals for World War II activities: Red Cross Medal, Navy League Medal and Home Comforts Medal.

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1. Adler Museum of Medicine Annual Reports 1962-2012.
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4. Adler Museum of Medicine Biographical Files.
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MUSEUM NAME CHANGES

1962 Museum of the History of Medicine
1974 Adler Museum of the History of Medicine
1999 Adler Museum of Medicine

CHAIRMEN OF THE BOARD OF CONTROL OF THE MUSEUM 1975-2012

1975–1976 Professor François Daubenton, Dean of the Faculty of Health Sciences, Wits
1977–1981 Professor Ellison Kahn, Deputy Vice-Chancellor, Wits
1982–1985 Professor Karl Tober, Vice-Chancellor, Wits
1986–1993 Professor Mervyn Shear, Deputy Vice-Chancellor, Wits
1994–1996 Professor Friedel Sellschop, Deputy Vice-Chancellor (Research), Wits
1997–1998 Dr Thomy De Ravel, South African Institute of Medical Research
1998–2003 Professor Max Price, Dean of the Faculty of Health Sciences
2004–2011 Professor Merryll Vorster, Vice-Dean of the Faculty of Health Sciences
2012 – present Professor Yosuf (Joe) Veriava

CURATORS AND DIRECTORS 1962-2012

1962–1987 Dr Cyril Adler, honorary director
1962–1980 Mrs Esther Adler, honorary curator
1981–1987 Dr Cyril Adler, honorary curator and director
1988–1989 Mrs Rose Melzer, acting director and curator
1989–1997 Ms Andrea Brown, curator
1990 Professor JHS Gear, part-time honorary director
1991–1997 Professor Donald George Moyes, part-time honorary director
1997 (August-September) Mr Tony Sparks, part-time acting curator
1998–2004 Dr Lelong Immelman, curator
2004–present Ms Rochelle Keene, curator

EDITORS OF THE ADLER MUSEUM BULLETIN 1975-2012

1975–1992 Mrs Rose Melzer, editor
1978–1986 Mrs Adele Kahn, co-editor
1987–1989 Mrs Pearl Benatera, honorary assistant editor
1992–1995 Professor Donald George Moyes, editor
1996–2004 Professor Asher Dubb, editor
2004–present Ms Rochelle Keene, co-editor
2005–present Professor Tony Davies, co-editor

TWO OF THE LETTERS RECEIVED BY THE MUSEUM ON THE OCCASION OF ITS 50TH ANNIVERSARY

I wish I could be there to celebrate with you. It's part of my history as well! I well remember the early days of the Bulletin, when my mother didn't have sufficient copy, and between the two of us we kept it going until it became a successful independent entity.

Congratulations on the Museum's 50th anniversary and have a wonderful celebration.

All the best

Glenda Abramson
Professor of Hebrew and Jewish Studies
University of Oxford, UK

Thanks for the invitation to the 50th Anniversary celebration. Unfortunately I will not be able to attend.

I congratulate the current team on their incredible unstinting efforts in building the Museum to its present state of excellence, and wish you even more success in the coming years. It is my belief that the Museum is one of the hidden treasures of the University.

Best regards

Geoff Klass
Collectors Treasury
Johannesburg

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Adler Museum Bulletin publishes papers in the field of historical research in medicine and allied health sciences. The Museum welcomes original contributions and letters for publication but reserves the right to edit, abridge, alter or reject any material. Manuscripts should not exceed 5 000 words. Longer articles may be divided into parts and published in successive issues of the *Bulletin*. Authors are responsible for the factual correctness of their articles. All articles are sent for refereeing. Authors wishing to reserve copyright to themselves should stipulate this at the time of submission of a manuscript.

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Each contributor will receive one set of page proofs for checking. The cost of any additions or alterations to the text at proof stage may be charged to the author. Authors will receive a copy of the *Bulletin* free of charge and a PDF file of the printed version of their article.

Online access: Back (from 2007) and current issues are now accessible on the Museum's website.

The full names of the author, name of the institution to which the author is/was affiliated and a short biographical note should appear below the title of the article. The author should also supply full postal address, email address and contact number when submitting a manuscript.

Authors are asked to submit a copy of the text on disc written in MS 'Word' or saved in 'Rich text format.' Do not format the text or use headers and footers. Manuscripts may also be emailed to adler.museum@wits.ac.za. Photographs, if emailed, should be in jpeg or jpg (pc) format, preferably 300dpi, or may be sent as high quality black and white photographic prints.

References are listed at the end of the manuscript and should be indicated in the text by superior numbers and listed at the end of the paper in numerical order. Do not list references alphabetically. References should be set out in the Harvard style, and only approved abbreviations of journal titles should be used. 'Personal communications' and work that is 'in preparation' may be cited in the text, but not in the reference list. However, formal theses and dissertations, even though unpublished, may be listed provided full details are supplied, including the institution where the master copy is lodged. Do not indent or otherwise format each entry. Note that this is a reference list and should not be formatted as footnotes.

Reference examples

Dr Frack had been a member of the 1919 Class, the Tin Templers.[1]

It did not, however, include anything about osteology, for bones would have doubled the size of *The Pocket Gray*.[2]

Direct quotes should be in italics or in inverted commas

Military medicine, surgery, and nursing were matters too important to be left to private charity, however well intended….[3]

"The tenth edition of Aids to Anatomy appeared in 1940…. It had been edited by Professor Stibbe, who, sadly, in 1923 left the University of the Witwatersrand."[4]

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