Building a specialist children’s nursing workforce in Africa

Ensuring the health and well-being of children is globally recognised as critical for achieving sustainable humanity. With nurses often being the mainstay of care for hospitalised children, building and supporting an educated, competent and motivated children’s nursing workforce is essential for improving infant and child health outcomes, especially in high-burden, low-resourced countries.

Established in 2008, the Child Nurse Practice Development Initiative (CNPDI) is a nurse-led initiative in the Department of Paediatrics and Child Health at the University of Cape Town (UCT), situated at Red Cross War Memorial Children’s Hospital (RCWMCH) in Cape Town.

The core work of the CNPDI is Building Children’s Nursing for Africa in Africa. This is realised through:

- A strengthened nurse workforce
- A strengthened education sector
- Improving outcomes for hospitalised and sick children
- Better evidence for education, practice and policy
Education @ UCT

Degrees offered by UCT:

- Post graduate diploma in Child Nursing (1 year full time)
- Post graduate diploma in Critical Care Child Nursing (1 year full time)
- Master of Nursing in Child Nursing (MNCN 2 years full time)
- PhD in Maternal and Child Health

Based at RCWMCH, staff and students benefit from supportive and close working relationships with the growing speciality multi-disciplinary paediatric teams in training.

Education Practice Development:

- Establishing & Strengthening Children’s Nursing Training

A growing number of African nations are prioritising stronger paediatric nurse training as a primary strategy to reduce the under-five mortality rate. We work intentionally with schools of nursing across sub Saharan Africa to establish children’s nursing training programmes. Secondly, we support the continued sustainability of children’s nursing training across the region by hosting and facilitating an annual Child Nurse Educator Forum.

Evidence Based Education And Practice

The CNPDI has an active research programme and is building the evidence for sustainable, evidence-based approaches to building the paediatric nursing workforce in Africa. We also plan to develop the systems and capacity to monitor the children’s nursing workforce in the countries we partner with, facilitating debate and advocating for informed decision-making about workforce development and training through a Workforce Observatory. Through original research we are keen to contribute evidence about what specialist children’s nurses do and the contribution they make to child health care in low and middle income countries, including through publishing.

Clinical Practice Development

We work with Africa’s children’s nurses to build the knowledge, skills and resources to provide higher quality, safer children’s health care. We endeavour to create scalable processes to strengthen nurses’ research awareness and their ability to use and conduct research, including journal clubs. Part of this work is to produce context-specific tools and evidence-based practice guidelines to underpin our work at UCT, and the work of our partners and graduates. As part of this, we are proud to host the biennial Building Children’s Nursing Conference. Our second year Masters students also complete a Clinical Practice Development Project each year by visiting a health facility in a different African country.

BUILDING CHILDREN'S NURSING IN AFRICA FOR AFRICA
2019 in review

2020 is the International Year of the Nurse and Midwife. CNPDI stand proud to report 2019 as another year of outcomes aligned to the global call for a strengthened workforce and best practice in the care of children. The achievements of 2019 include 21 graduations, 4 publications, the successful hosting of two major international meetings (the 4th Building Children’s Nursing Conference, and 5th Child Nurse Educator Forum); and continued productive partnerships with 6 other countries. During the course of the year, with one large funding cycle coming to an end, we were also delighted to secure R28 million from new and renewed donors for the next four years, and still have outcomes pending of other applications. As always in pioneering work, there are challenges, the most significant one being the national delays in implementation of new regulatory framework for postgraduate nursing training in South Africa. This has resulted in us not being able to take a new intake of postgraduate diploma nursing students in 2020. Whilst a disappointment in the short term, for nurses and sending institutions, we are maximising on the opportunity this brings to spend the year working on a blended learning curriculum. This will open up possibilities for part time and more flexible study making it possible to increase student numbers. We are as always grateful to all our donors for your unwavering support.

Professor Minette Coetzee
Director: Child Nurse Practice Development Initiative University of Cape Town

Education @ UCT

21 students graduated in 2019, bringing the total number of qualified children’s nurses from UCT to 320

Post Graduate Diplomas in Child Nursing and Critical Care Child Nursing

11 students enrolled for the PGDip in Child Nursing and 10 for the PGDip in Critical Care Child Nursing, and included 3 nurses from outside South Africa (from Zambia and Ghana).

The 2019 intake was the smallest we have had for many years, which we attribute to growing employer reluctance to send staff for full time training, plus reaching a point where local employers reached a point where the majority of eligible staff have now achieved their children’s nursing qualifications.

A small number of students were identified early in the year as requiring additional support and guidance to ensure they got the best opportunity to succeed. From the 21 students in the 2019 cohort, 14 passed, 2 had deferred exams in January 2020 due to delays with SANC registration, 1 had a supplementary exam (retake) in Jan 2020. 4 failed one of their four courses. Of the four who failed three will retake the course in 2020.

Master of Nursing in Child Nursing

We welcomed 4 new students & 1 returning student (who was part time in 2018) into the Master’s programme for 2019. 4 from South Africa and one from Zambia. They began their year with an intensive clinical practice immersion via placements in Registrar teams at the Red Cross War Memorial Children’s Hospital. In June they had the opportunity to develop their own teaching skills as they spent 2 weeks teaching the first ever cohort of children’s nursing students at the International University of Management, Windhoek Namibia, and the latest group of 35 students at the Lusaka School of Nursing in Zambia. All the 2019 intake have made satisfactory progress with their studies and have continued into Year 2 in 2020.

The 4 second year students (2018 intake) continued to develop and consolidate their clinical learning throughout 2019 as well as honing their leadership skills. Mid-year they spent 3 weeks in Namibia working on a practice development project, looking at the management of neonates in a rural district hospital. They also worked intensively throughout the year on the development of Evidence Based Practice Guidelines (EBPGs). All 4 will be graduating at the UCT ceremony in March 2020, having completed their studies at the end of 2019.
International University of Management (IUM) in Namibia, PG Diploma in Children’s Nursing

The new 1 year PG DiP course officially launched at IUM, Namibia in January 2019 with 4 students enrolled. This team will be clinically supported by Beatrix Callard, a 2018 UCT Master of Nursing graduate (cum laude) from Windhoek Central Hospital, who was instrumental in establishing the initial links with IUM and the Namibian Ministry of Health. She is supported by nurse tutors Eunike Mushelenga and Frederika Hamutoko, who completed the PG DiP in Child Nursing at UCT in 2017 and 2018.

National University of Science and Technology, Zimbabwe: Educator Internship

In Feb 2019 we were delighted to host Yvonnie Chauraya, Nurse Educator, from the National University of Science & Technology, Zimbabwe. Yvonnie spent 3 weeks with us sharing ideas about participative learning and teaching styles, prior to the commencement of the Zimbabwean Postgraduate diploma in Children’s Nursing in the near future.

Child Nurse Educators Forum

In September we hosted the 5th annual Child Nurse Educator’s Forum. In addition to educators from South Africa, attendees included educators from programmes being run in Malawi, Namibia, Zambia, Kenya and from prospective programmes in Zimbabwe and Botswana.

This was a key and strategic event at which CNPDI Director Minette Coetzee facilitated an active participative process to develop core curriculum of children’s nursing programmes for the region. This included clarifying expectations of the role of the specialist children’s nurse in lower-resourced health systems. Natasha North updated delegates about the World Health Organisation’s focus on nursing with 2020 declared the Year of the Nurse and carried out data collection for the Children’s Nursing Workforce Observatory.

New in-country children’s nursing training programmes developed

- **Kenya**
  - Gertrude Children’s Research and Training Institute, Gertrude Children’s Hospital, Nairobi
    - Diploma: Child Critical Care (est. 2013)

- **Malawi**
  - Kamuzu College of Nursing, University of Malawi
    - Master: Child Health Nursing (interim dual registration course est. 2011, independent course est. 2016)
    - Bachelor of Nursing: Child Health (est. 2018)

- **Namibia**
  - International University of Management, Windhoek
    - Postgraduate Diploma: Children’s Nursing (est. 2019)

- **Zambia**
  - Lusaka Schools of Nursing
    - Advanced Diploma: Paediatric Nursing (est. 2013)
  - Arthur Davison School of Paediatric & Child Health Nursing, Ndola
    - Advanced Diploma: Paediatric Nursing (est. 2018)

- **Malawi**
  - Kamuzu College of Nursing, University of Malawi
    - Master: Child Health Nursing (interim dual registration course est. 2011, independent course est. 2016)
    - Bachelor of Nursing: Child Health (est. 2018)
Clinical Practice Development

Evidence based practice guidelines

As part of their second-year studies, students on the Master of Nursing in Child Nursing programme are facilitated to each lead the initial stage of development of a contextually relevant topic in clinical nursing practice of children in partial fulfillment of their degree. The potential for students/graduates to contribute to co-authoring a peer reviewed publication is an important part of their professional development and will make a positive contribution to advancing nurse-led clinical governance and leadership in Africa’s child health services.

These guidelines are a much-needed resource in Africa, and we are excited about their potential to contribute to improved nursing practices and child health outcomes.

Evidence based practice guidelines (EBPG’s) provide a plan of action to guide health professionals in making decisions about treatment and care, supporting them to achieve better outcomes. EBPG’s developed in 2019:

- The nurse's role in the care of a neonate on CPAP in NICU
- The registered nurse's role in the prevention of errors in the preparation and administration of IV medication to infants and children
- The nurse's role in the administration of medication via gastrostomy in children
- The nurse's role in the management of an indwelling chemoport in children

Building Children’s Nursing Conference

The fourth Building Children’s Nursing conference was held from the 16th - 18th April 2019 in Cape Town. This is Africa’s only dedicated conference for nurses who work with children, newborns to adolescents, and their families. There were a wide variety of academic presentations encouraging the 111 delegates from 12 countries to truly engage with evidence-based research and consider the impact on their clinical practice. The participative style of the conference also enabled full discussion around the topics presented. We welcomed a dynamic community of child health nursing leaders, educators, researchers and practitioners from South Africa, seven other African countries, the Netherlands, UK and United States, to consider and celebrate recent research, clinical practice projects, education and leadership initiatives.

Ireen Muleya, APN from University Teaching Hospital, Lusaka, Zambia
Winnie Wanjiru, APN from Gertrude’s Children’s Hospital, Nairobi, Kenya
Jabulani Kgasapane, APN from Themba Private Hospital, Gauteng, South Africa
Akua Dwomoh Boateng, APN from Komfo Anokye Teaching Hospital, Kumasi, Ghana
Case studies - CNPDI Masters Alumni

Since the launch of the Master of Nursing in Child Nursing programme (MNCN) in 2016, 15 nurses have graduated as Advance Practice Nurses (APN). In addition to in-depth clinical specialisation in children’s nursing, the programme focuses on developing and strengthening strategic leadership and clinical governance. Graduates have also become proficient in advanced clinical research, and evidence based policy and practice in the care of children and families.

APN Virginia Ngugi (MNCN: 2017-2018)
Quality Nurse Co-Ordinator and Clinical Practice Educator
Kenya Gertrude’s Children’s Hospital

After returning to her home in Nairobi, Kenya, APN Ngugi says she has implemented many of her newfound skills in her everyday practice: “The two years gave me a voice and a confidence to express myself, both in a nursing capacity and in my personal life. The classroom experience has enabled me to build on my knowledge base and to apply critical thinking more. The leadership lessons were tailor made for the work I’m currently undertaking – from guiding the nursing teams with their quality improvement projects, to facilitating root cause analysis and all the rest.”

Virginia has also found that having a professional master’s degree has given her greater potential to positively impact on child health throughout Kenya, both directly through her clinical practice, as well as indirectly through advocacy in policymaking.

APN Mmutesi Mokwatsi (MNCN 2016-2017)
Operational Manager
South Africa: Nelson Mandela Children’s Hospital

APN Mokwatsi is currently based at Nelson Mandela Children’s Hospital, where he works with children who have long-term chronic conditions, with a specific focus on children who suffer from kidney disease. He found the MNCN programme sharpened his critical thinking and sees his role in nursing through a broader systems lens: “I now always ask ‘How is this benefiting the greater society?’ Being an APN has given me the tools to achieve great things and to make an impact on a greater scale.”

APN Mokwatsi is now considered a great resource to hospital management and a role model for child health nursing by his colleagues. One of his greatest achievements in the last few years has been ensuring that a surgical ward was opened at Nelson Mandela Children’s Hospital. He was also asked to draft the recommendation for the nurse-patient ratio in mother and child health wards, presented to the MEC for Health in the Northern Cape Department of Health.

APN Beatrix Callard (MNCN 2017-2018)
Senior Registered Nurse, Neonatal ICU
Namibia: Windhoek Central Hospital

After graduating from the MNCN programme in 2018, APN Callard returned to her position as Head of Neonatal Nursing services at Windhoek Central Hospital, Namibia’s largest referral hospital. Her work centres mainly around leading critical care of new-born infants in the neonatal ICU, which admits around 100-120 patients per month. Through the MNCN programme, APN Callard says she has gained confidence in managing the research and leadership aspects of her work.

“[I] have a more rounded approach to problem solving and have gained an ability to better reason on cases using supporting evidence. I am doing more advocacy through being involved in National Committees.”

From the beginning of 2020, APN Callard will start teaching on the new PG DIP course in Children’s Nursing at the International University of Management in Windhoek.
Evidence for education, practice and policy

Published papers 2019

Health Workforce Planning

• Building a workforce for a child- and family-centred health service

Minette Coetzee and Natasha North were invited to collaborate as co-authors on an invited chapter about the child health workforce for the 2019 South African Child Gauge. The chapter addresses the steps needed to develop a child and family friendly healthcare workforce nationally.

• The children’s nursing workforce in Kenya, Malawi, Uganda, South Africa and Zambia: generating an initial indication of the extent of the workforce and training activity

This paper presents the findings of an initial nursing workforce survey, focusing on South Africa, Uganda, Zambia, Malawi and Kenya. This is the first time a systematic count of specialist children’s nurses has been attempted for this geographical region.

• The situation of the children’s nursing workforce and training in South Africa: a short report

Nursing Practice Improvement

• Making children’s nursing practices visible: using visual and participatory techniques to describe family involvement in the care of hospitalised children in southern African settings

This paper describes the innovative visual and participatory methods used in the study and is published in the foremost qualitative methods journal internationally.

Challenges (and solutions)

We have all been waiting for a regulation relating to the approval of and the minimum requirements for the education and training of specialist nurses. This regulation is needed before any new programmes and qualifications can be accredited by South African Nursing Council (SANC) and the Council for Higher Education (CHE).

On the 16th October 2019 the Government Gazette 62770 Regulation 1322 was finally released for comment. After a two-month consultation period the regulation will need to be promulgated and then SANC and CHE, with input from SAQA, will need to complete a process of formally revising their policies and accrediting all postgraduate nurse education programmes and training institutions.

As a result, there will be no new intake of PG Dip nursing students at UCT in 2020. The only PG Dip students in 2020 will be the three returning to complete one course. This situation affects all providers of all postgraduate nurse education and training programmes in South Africa It is not unique to UCT. UCT has met all deadlines e.g. around submission of recurriculated programmes for accreditation. While obviously a sad development for our health system, our CNPDI teaching team are determined to use the time available in a year without students to make rapid progress with developing blended learning programmes.

We held an initial planning workshop with UCT’s Centre for Innovation in Learning and Technology with regards to the development of blended learning programmes. We were delighted to receive confirmation that Professor Laurie Posey, a renowned expert in blended learning development from George Washington University (USA) will be affiliated to our programme through a Fulbright scholarship in 2020. We are excited at being able to access and apply the academic and professional knowledge and expertise needed to design a completely new approach to specialist nursing education in Africa.

Priority Activities in 2020

Education @ UCT

• Fully transition 2 face to face PG Dip Programmes onto the blended (online) learning platform
• 5 Master of Nursing in Child Nursing graduates

Education Practice Development

• 2 new children’s nursing training programmes established in Zimbabwe and Botswana
• Host 5th Child Nurse Educator’s Forum

Clinical Practice Development

• Development of 3 further Evidence Based Practice Guidelines

Evidence for education, practice and policy

• Children’s Nursing workforce observatory established
• 2 Policy briefings & 4 papers published


# Financial Report

## Expenditure Report, 1 January - 31 December 2019

<table>
<thead>
<tr>
<th>Budget by Line Item</th>
<th>Approved Budget FY2019</th>
<th>ACTUAL SPEND FY2019 (1 Jan-31 Dec 2019)</th>
<th>Variance</th>
<th>% Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel (includes 20% staff overhead charge non UCT funded staff)</td>
<td>R 8 068 241</td>
<td>6 994 988</td>
<td>1 073 253</td>
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<tr>
<td>Education at UCT</td>
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<tr>
<td>PC Dip Student Study Support</td>
<td>R 713 400</td>
<td>800 539</td>
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<tr>
<td>MNCN Student Study Support</td>
<td>72 000</td>
<td>213 105</td>
<td>141 035</td>
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<td>SA MNCN Student Bursaries</td>
<td>225 000</td>
<td>400 000</td>
<td>175 000</td>
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<tr>
<td>Blended learning costs</td>
<td>375 000</td>
<td>159 000</td>
<td>216 000</td>
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<td>Education Practice Development - Bursaries</td>
<td>R 1 708 244</td>
<td>R 1 608 888</td>
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<td>APFP PCDip Bursaries</td>
<td>705 512</td>
<td>647 727</td>
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<td>APFP MNCN Bursaries Year 1 &amp; 2 Bursaries</td>
<td>1 002 732</td>
<td>961 160</td>
<td>415 572</td>
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<tr>
<td>Education Practice Development - Visit and Forums</td>
<td>R 288 700</td>
<td>R 292 671</td>
<td>-3 971</td>
<td>-1%</td>
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<tr>
<td>Support Visits - African Programmes</td>
<td>110 700</td>
<td>102 395</td>
<td>8 305</td>
<td>8%</td>
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<tr>
<td>Children’s Nursing Educator Forum</td>
<td>178 000</td>
<td>190 275</td>
<td>12 275</td>
<td>-7%</td>
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<tr>
<td>Clinical Practice Development (4 Clinical Practice sites)</td>
<td>R 105 600</td>
<td>R 93 815</td>
<td>R 11 785</td>
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<tr>
<td>Clinical Practice Development Visits to 4 Best Practice Units</td>
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<tr>
<td>MNCN Yr 2 Student Clinical Pract Dev Project</td>
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<tr>
<td>Biennial Colloquium - Best Practice Units</td>
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<td>Research - Evidence for Education, Policy &amp; Practice</td>
<td>R 419 400</td>
<td>R 289 156</td>
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<td>APN Fieldwork</td>
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<td>Publishing</td>
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<td>Graphic Design - Policy Briefings, Publication &amp; Dissemination</td>
<td>15 000</td>
<td>1 185</td>
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<td>Transcription Costs R720/hours, Total 50 hours audio</td>
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<td>18 000</td>
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<td>Salesforce &amp; Workforce Observatory &amp; Platform</td>
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<td>FHS Postdoc Fellowship</td>
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<td>Budget by Line</td>
<td>Approved Budget FY2019</td>
<td>ACTUAL SPEND FY2018 (1 Jan - 31 Dec 2019)</td>
<td>Variance</td>
<td>% Variance</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------</td>
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<tr>
<td>Operational Expenditure</td>
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<td>Training materials and refreshments</td>
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<td>R 79 947</td>
<td>R 109 653</td>
<td>58%</td>
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<td>Photocopy/Printing</td>
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<td>17 657</td>
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<td>Stationery, bank charges &amp; Contingencies</td>
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<td>Software - Graphics, Animations</td>
<td>36 000</td>
<td>23 258</td>
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<tr>
<td>Office Equipment - IT &amp; software</td>
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<td>84 000</td>
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<tr>
<td>Program Development</td>
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<td>Initiative Staff Conference Attendance</td>
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<td>R 98 446</td>
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<td>Staff Capacity building</td>
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<td>87 998</td>
<td>11 702</td>
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<td>National Forums (includes Fundisa &amp; SANC)</td>
<td>8 000</td>
<td>7 400</td>
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<td></td>
<td>15 461</td>
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<td>12 413</td>
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<td>Total Program Budget</td>
<td>R 11 655 706</td>
<td>10 292 398</td>
<td>1 363 308</td>
<td>12%</td>
</tr>
</tbody>
</table>

**Variance in Expenditure**

Total expenditure in 2019 was R10 292 398. The underspend of R1 363 308 (variance of 12% on original budget of R11 655 706), is attributed to:

1. In light of not having secured funding for 2020 until end of 2019, we intentionally made savings in a number of general operations (in particular appointment of communications officer).
2. Reduced research team costs (R623 065). We were unable to advertise and fill the Researcher post vacated in April, as we only had confirmed funding for this post until 2019. Commencement of the APN study was delayed, also reducing the work requirement. In addition, we were required to decrease N North’s weekly hours (appointed in senior researcher position), due to unexpected change in her visa status.
3. F/T Senior Lecturer post not filled for the Master of Nursing in Child Nursing programme causing overall underspend of R335 248. Overspend in MNCN study support due to cost of external lecturers appointed on consultancy basis. Majority of teaching work done by Assoc Prof Coetzee at no additional cost to budget.
4. Publishing costs less than budgeted for due to successful pursuit of cheaper publication platforms.

WITH THANKS

The Burdett Trust for Nursing
The Children’s Hospital Trust Foundation
Harry Crossley Foundation
The ELMA Foundation
SleepNet
The Vitol Foundation
Phatisa Foundation