



Namibian Children's  
Heart Foundation

## ANNUAL REPORT OF THE NAMIBIAN CHILDREN'S HEART FOUNDATION 2019

(Non-profit Association incorporated under Section 21)

(Reg No: 21/2012/0013)

### 1. Introduction

The Namibian Children's Heart Foundation was established in 2011 by the late Mr Harold Pupkewitz. The objectives of the Foundation are;

- to support research into heart disease in children in Namibia
- to identify young medical scientists and build research capacity
- to generate robust data through which to influence public policy

This is the Annual Report of the Foundation for 2019.

### 2. The Board of Directors

The Hon Minister of Mines and Energy, Mr Thomas Alweendo (Chairman)

Mrs Meryl Barry

Dr Salomo Amadhila

Dr Henning du Toit

Dr Fenny Shidhika

Dr Christopher Hugo-Hamman (Principal Officer)

### 3. Annual Financial Statements

The annual financial statement ending 28 February 2019 is presented for approval. The financial affairs of the Foundation are sound. Although no donations were received through 2018, current assets are N\$ 977 203.00 (c.f. N\$ 1 426 761.00 a year ago).

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#### 4. Research supported by and through the NCHF

##### 4.1. The Namibian Children's Heart Project (NCHP)

This project was initiated in 2009. Over 9 years, close to 400 babies and small children have been referred for heart surgery or intervention at the Christiaan Barnard Memorial Hospital in Cape Town.

A milestone for children's heart disease research was achieved when at the paper written by Dr Fenny Shidhika and others titled, "*The Namibian Children's Heart Project: A South-South Partnership to provide cardiac care*", was published in the international journal, "Cardiology in the Young", in February 2019. The Foundation (Harold and Ethel Pupkewitz Heart Foundation) is rightly credited with supporting this work.

In 2018 Dr Shidhika, supervised by Prof Liesl Zuhlke and Dr Hugo-Hamman, submitted the research for an MPhil in the University of Cape Town. She was awarded the MPhil in 2019 and is the first clinical scientist to receive an MPhil in Paediatric Cardiology from the University of Cape Town. The Foundation is proud to have supported this work.

From a public policy perspective this analysis of the NCHP has been extremely important. It is far preferable to ensure the development of a sustainable paediatric cardiac service in Namibia for Namibians. The last year has seen surgery for babies and young children start at the Windhoek Central Hospital demonstrating signalling the maturation of the NCHP and the return of indigenous talent to the country.

##### 4.2. The Namibian Register for Rheumatic Heart Disease

The Namibian National Registry for RHD has been supported and funded by the Foundation since inception in 2010. There are now 740 patients in the national Register of Rheumatic Heart Disease. The Register is run by Mrs Gonda Olivier (Administrator of the Foundation) and it is the

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surveillance tool used by the National Programme for prevention and control of RHD in the Ministry of Health and Social Services (MHSS).

Between 2010 and 2012 the national registry recruited patients for the international research study known as the “*Global Registry of Rheumatic Heart Disease*”, or, REMEDY. Baseline results on the 3343 patients enrolled in REMEDY were published in the European Heart Journal in November 2014. The 24 month follow-up data on those 3343 patients were published in the journal of the American Heart Association, “*Circulation*”, in October 2017.

The results of the Namibian sub-study of 266 patients were presented at the meeting of the Pan African Society of Cardiology (PASCAR) in Mauritius and the Annual Congress of the South African Heart Association in 2015. Dr Tangeni Auala and others have now analysed these patients and written a paper due for publication this year in the South African Medical Journal in a *festschrift*, dedicated to the late Prof Bongani Mayosi (who is a co-author on this paper).

#### 4.3. Surgery for rheumatic valvular heart disease in Namibia.

Since the Cardiac Unit was commissioned in 2010, over 300 patients have received surgery for RHD in Windhoek. Dr Tangeni Auala, supervised by Dr Hugo-Hamman and assisted by Dr's Agapitus, du Toit and Nghaamwa, investigated outcomes of surgery in the first 200 patients.

On behalf of the investigators, Dr Auala presented a paper “*A review of 5 years experience (2010 - 2015) of surgery for Rheumatic Heart Disease at the Windhoek Central Hospital, Republic of Namibia*” at the World Congress of Paediatric Cardiology and Cardiac Surgery in Barcelona, Spain in July 2017. The NCHF supported this research and enabled Dr Auala attend this meeting.

Publication of this work will hopefully follow later in 2019.

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## 5. The Eradication of RHD

### 5.1. Global Resolution on Rheumatic Fever and Rheumatic Heart Disease

Following years of campaigning for and advocacy from the global RHD community, on Friday 25 May 2018, member states of the World Health Organisation (WHO) unanimously adopted a “*Global Resolution of Rheumatic Fever and Rheumatic Heart Disease*”. The historic decision marked the first time that RF and RHD had been recognised as a global health priority. The Resolution was co-sponsored by countries from all 6 regions, including Namibia.

The World Heart Federation with the American Heart Association held a follow-up meeting in Chicago November 2018 during the Annual Congress of the AHA. Dr Hugo-Hamman was invited to participate in this meeting and in a scientific session on “*Key Issues in global advocacy for rheumatic heart disease*” delivered a keynote address entitled, “*The 2018 WHO resolution on rheumatic heart disease: Policy implications and next steps*”. The late Prof Mayosi was to give this presentation. The Foundation supported this work and facilitated Dr Hugo-Hamman’s participation.

### 5.2. Eradication of Rheumatic Heart Disease in Namibia

The National Advisory Committee for Prevention and Control of RF/RHD in Namibia was formed in 2015. Knowledge and evidence on RHD acquired through the Namibian National Registry is what enabled its formation and what supports its important agenda. The Committee serves as the primary decision-making body of the program and is responsible for designing and writing the “Beat RHD A.S.A.P.” national programme.

The Foundation continues to support the National Advisory Committee writing and carrying the publication costs of pamphlets and posters for distribution to health centres and hospitals in Namibia. Over the last year these have been translated by co-workers in the RHD Clinic at Windhoek Central Hospital and published in Oshivambo and Afrikaans. Warfarin is an

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anticoagulant drug used to stop blood from clotting in RHD patients who have received prosthetic heart valves or, who have atrial fibrillation. Warfarin is a hazardous drug with life-threatening complications. The Foundation supported the publication of “*A guideline on the use of the Warfarin in Namibia*”.

## 6. Capacity Building

6.1. An important objective of the Foundation is, “to identify young medical scientists and build research capacity in our country”. To date the Foundation has engaged and supported the following clinician scientists and research assistants - Dr's Brenda Kaaya, Liina Sikwaya, Johanna Shapaaka, Fenny Shidhika, Ndati Agapitus, Monika Kakololo and Tangeni Auala, Registered Nurses Angeline Bock and Antoinette Awases and Technologist Mr Sphamandla Nzuzza.

6.2. In 2018 the Foundation supported;

- Dr Wim de Mey to the Neonatal Echocardiography course run by the University of Stellenbosch at Tygerberg Hospital in June 2018.
- Dr's Alfred Mureko, Wim de Mey and Hugo-Hamman with Mr Sphamandla Nzuzza, to attend the Annual Congress of the South African Heart Association and Paediatric Cardiac Symposium in October 2018.
- Dr Henning du Toit to attend and give three papers at the Annual scientific meeting of the European Association of Cardio-thoracic surgeons (EACTS) in Milan in October 2018.

## 7. Grants and Donations

7.1. Over the financial year there were no research grants awarded to projects or persons in the Namibian Paediatric Cardiac community. With the return to Namibia of Fenny Shidhika (Paediatric Cardiologist) and Alfred Mureko (Paediatric Cardiac Surgeon) there is the expectation of renewed performance in research into heart disease in children. There are several

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exciting projects in discussion which if they develop, bring promise of financial support through research grant awards. These include the following projects

- Afrostrep - mapping the Group A beta haemolytic streptococcus in Africa. This study is supervised by Prof Mark ENgel at the Mayosi Research Group at the University of Cape Town. Namibia was initially invited to participate and submitted its funding protocol in 2017.
- PROTEA - Partnerships for Congenital Heart Disease in Africa aims to address gaps in evidence in CHD epidemiology by establishing a comprehensive phenotype and genotype registry, developing a biobank for DNA extraction and genetic analysis, and to utilise computational fluid dynamics to potentially develop new treatment modalities for CHD. A key component of this study is capacity building, teaching and training and expanding into other sites in Africa. This study is supervised by Dr Liesl Zuhlke and will further strengthen the already strong ties between Namibia and the Children's Heart Disease Research Unit at the University of Cape Town. Above all it will enable an electronic medical record for cardiology and surgery.
- APPROACH IS was the acronym for an international study which ran from 2013 to 2015 and assessed patterns of patient reported outcomes in adults with *congenital heart disease*. Namibia has been invited to participate in APPROACH IS II which aims "to further explore differences in patient reported outcomes in adult congenital heart disease in low, middle and high income countries". The study is again being supervised by Philip Moons and Adrienne Kovacs.

7.2. There were no donations of any nature made to the Foundation in the last financial year. We expect this to change with the new research initiatives (described above) from within the team at Windhoek Central Hospital.

## 8. Conclusion

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Over 8 years the Foundation has made an invaluable contribution to heart disease research in children and to research capacity development in Namibia. The impact of that research is best measured by its relevance to and influence on health policy in Namibia.

It is extremely gratifying to see work which has been supported by the Foundation rewarded with publication in international peer reviewed cardiology journals and we hope to see many more in years to come.

A new generation of paediatric heart specialists and scientists have qualified and returned to Namibia. There is now renewed enthusiasm for clinical research which we hope will bring strong performance through the next year. Whilst the Foundation managed to solicit generous financial support over the previous financial year (2018), there was none over this financial year. We agree with Prof Mayosi who said "money will follow good ideas" hence believe we will see the new generation of young clinical scientists come forth with innovative projects deserving funding and support from the Foundation.

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