

SURGERY FOR RHEUMATIC HEART DISEASE A 5 YEAR REVIEW FROM NAMIBIA

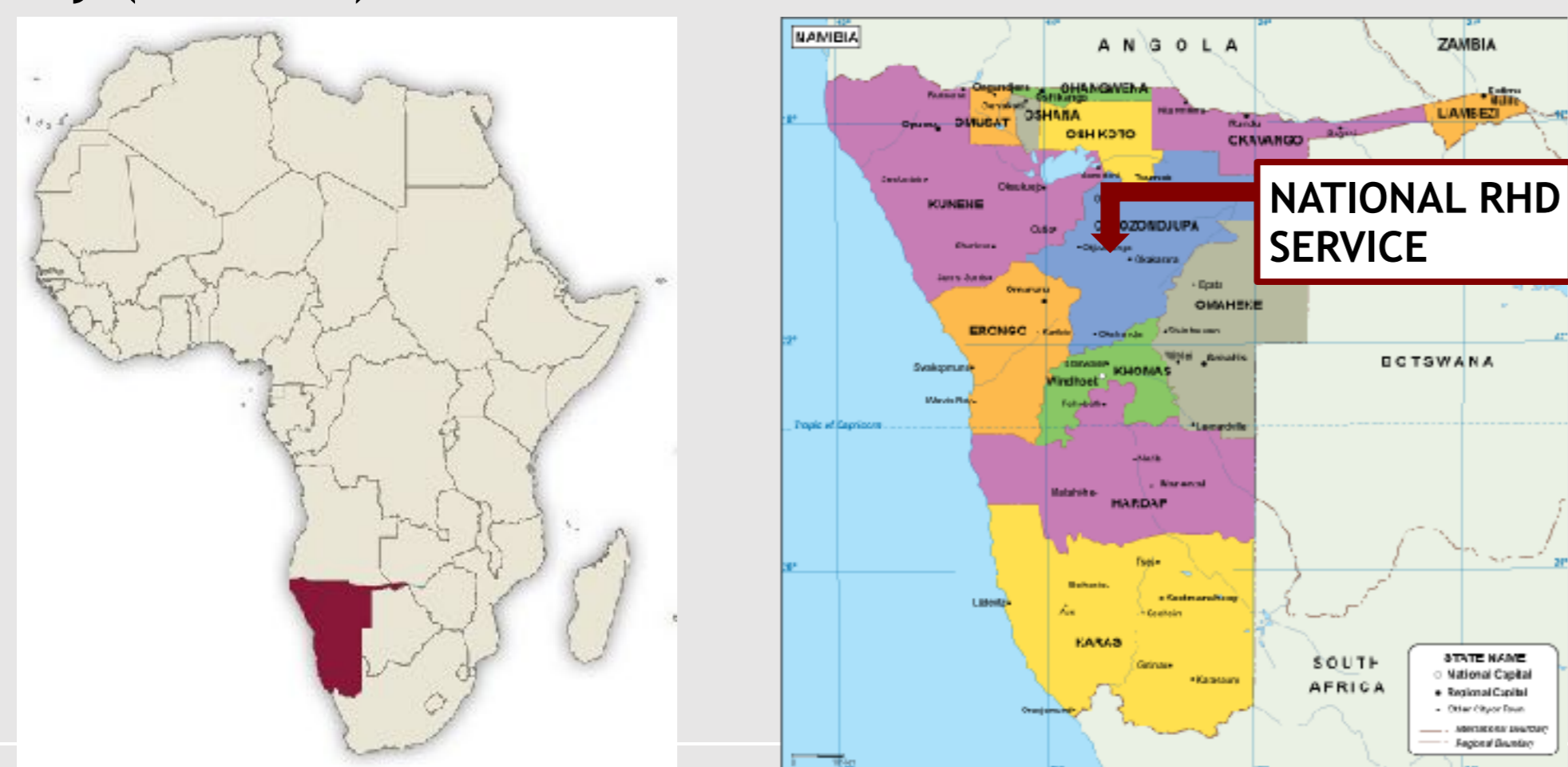


¹ T. Auala, ¹ N. Agapitus, ¹ H. Du Toit, ¹ J. Nghamwa, ^{1,2} C. Hugo Hamman

¹ Cardiac Unit, Windhoek Central Hospital, Ministry of Health and Social Services Namibia, Windhoek, Republic of Namibia
² Division of Paediatric Cardiology, Red Cross Memorial Hospital and University of Cape Town, Cape Town, Republic of South Africa

BACKGROUND

- Rheumatic heart disease (RHD) is a major cause of cardiovascular morbidity and mortality in developing countries. ⁽¹⁾
- In 2010 Namibia established a specialist RHD Service in the capital Windhoek
- This service facilitated the establishment of the National RHD Registry and participation in the Global Rheumatic Heart Disease Registry (REMEDY). ⁽²⁾



AIMS

- The aim is to report the experience with surgery for RHD in Namibia.

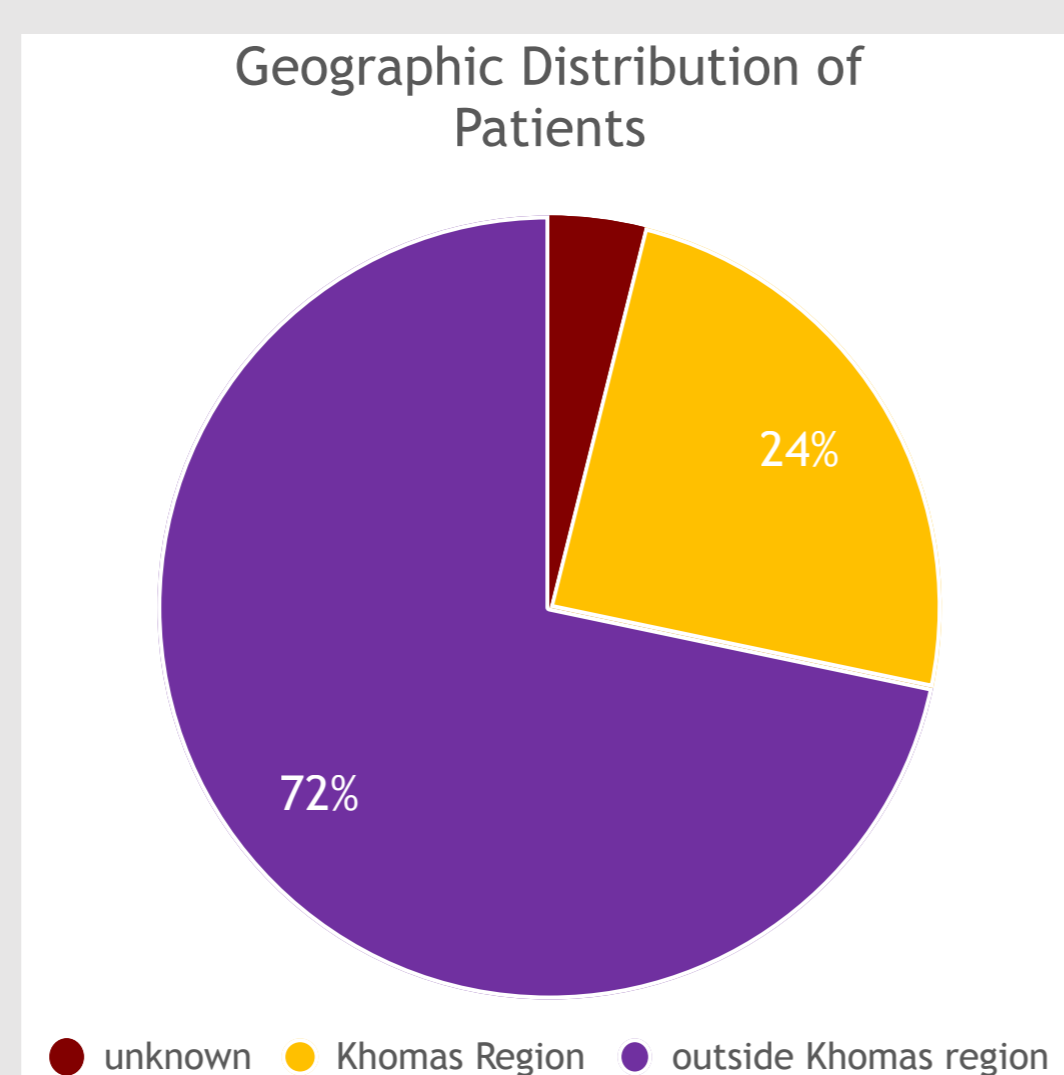
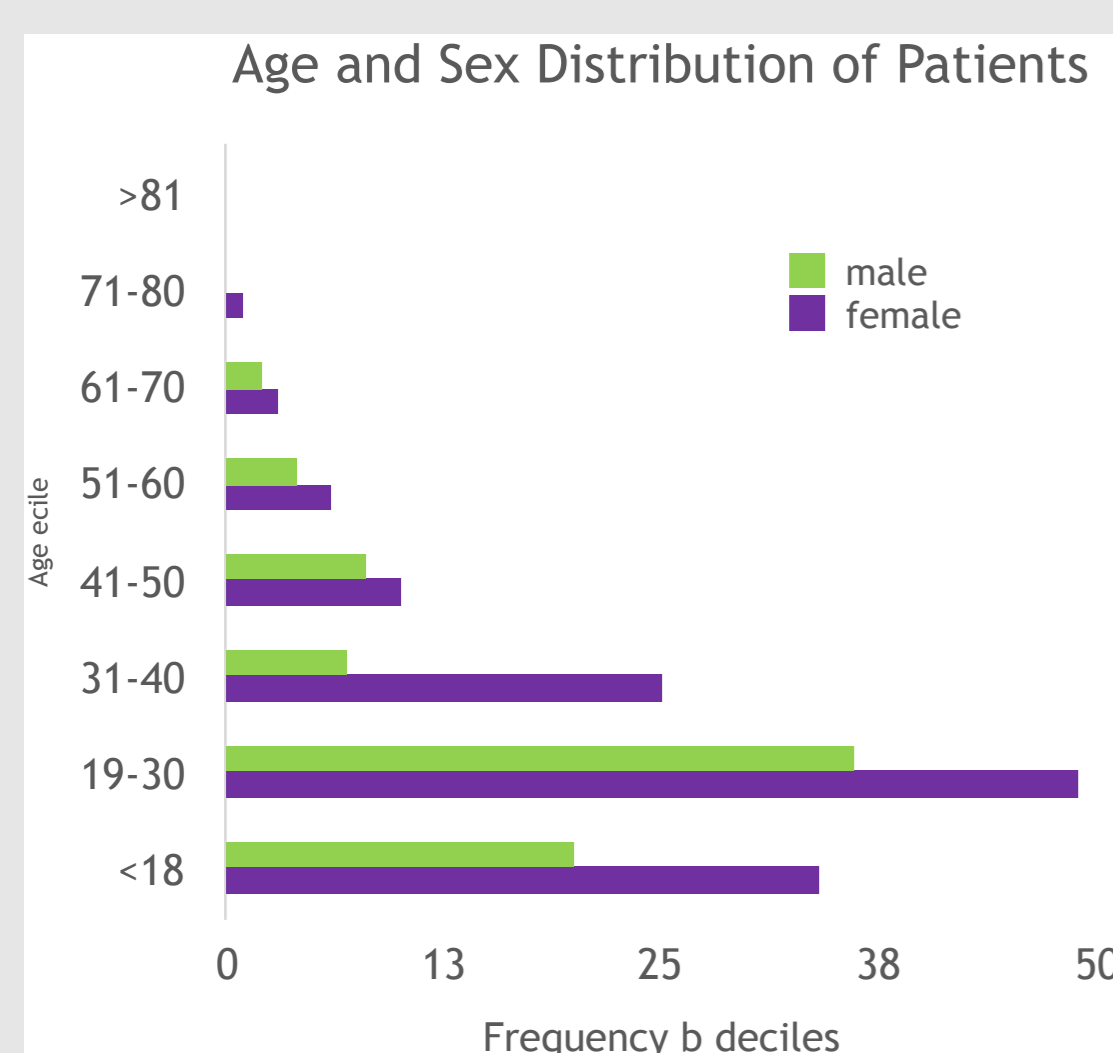
METHODS

- Retrospective review of all patients who underwent surgery for RHD between October 2010 - December 2015.
- Case notes, echocardiograms and surgical reports were interrogated. Data captured in Microsoft Excel, coded and analyzed using STATA 14.0.

RESULTS

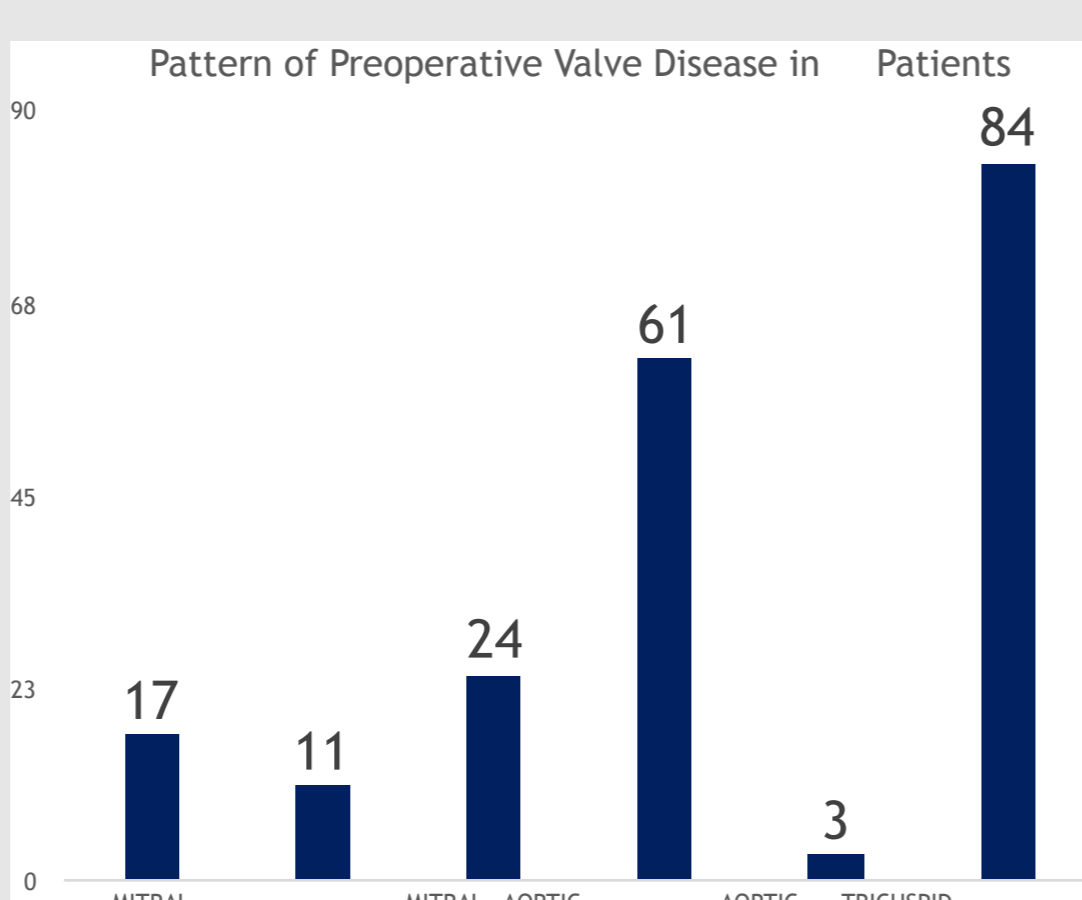
DEMOGRAPHICS

- Two hundred (200) of 516 patients in the Namibian National RHD registry had 205 operations during the review period.
- Patients were young, 125 (83.4%) were under 40 years and 26.3% were children.
- One hundred and twenty five were female (62.5%), 85.7% of whom were of childbearing age (12-51 years).
- The majority of patients were referred from areas in excess of 700km away.



Preoperative Characteristics of Patients

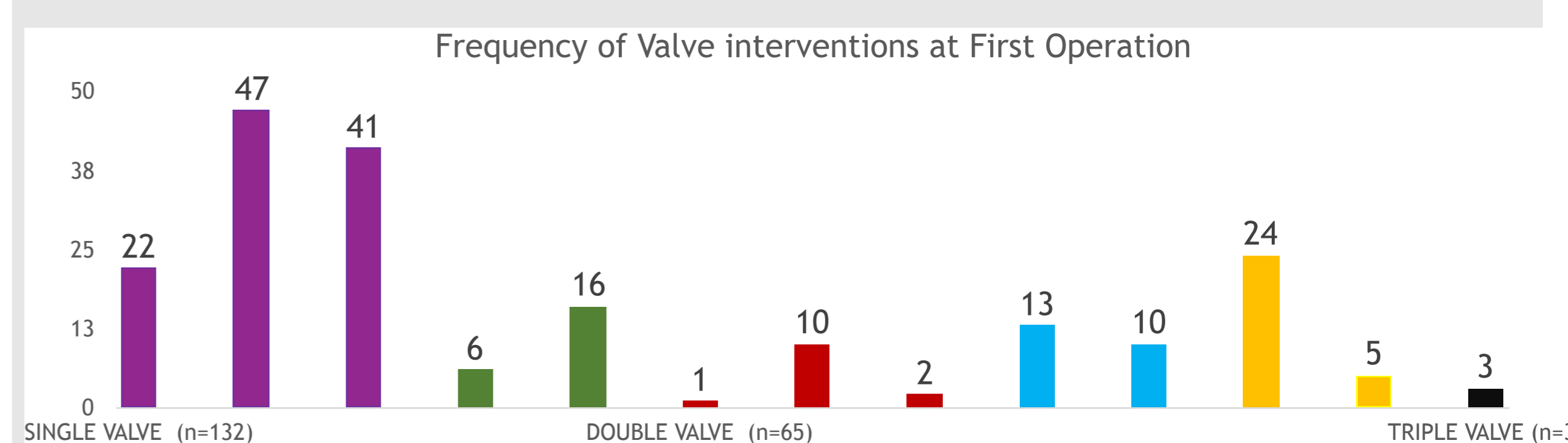
Clinical Characteristics	Patients n (%)
NHYA III & IV*	101 (74.2)
Atrial fibrillation**	56 (34.1)
HIV positive***	18 (12.2)
Previous valve surgery	12(6.0)
Echocardiography (n)	
Decreased LVEF #	51 (26.8)
Pulmonary hypertension §	145 (75.9)
Increased LA:AO (>1)^	160(96.3)



RESULTS

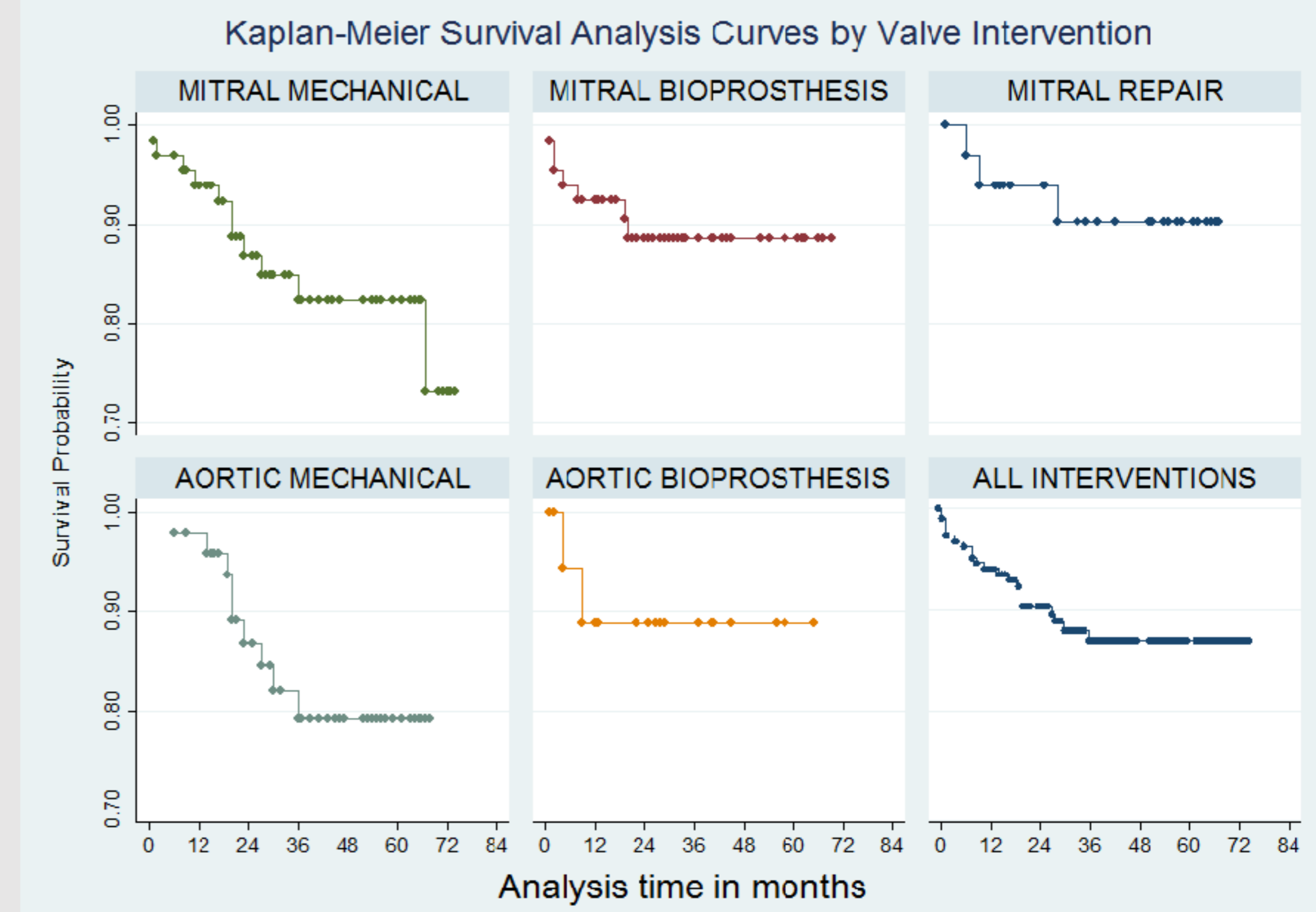
SURGERIES

- Two hundred patients had operations on 277 valves in different combinations
- Of these 182 were in mitral position (37 repairs, 70 tissue and 75 mechanical); 75 in aortic position (21 tissue 54 mechanical) and 20 tricuspid repairs.
- 58,4% of females of child bearing age and younger received tissue valves.



OUTCOMES

- Mean follow up period was 33.98 months
- Twelve patients (6%) were lost to follow up: a third of which had mechanical prostheses; two thirds lived outside Khomas region.
- Of the 277 valves that were operated, 15 stenosed: 4 in mitral position (3 tissue and 1 mechanical) 11 in the aortic position (5 tissue and 6 mechanical)
- Thirty-two patients (17%) died: 11 died within 30 days of surgery, six within 6 months and 15 died more than 6 months postoperatively. Nineteen (59.4%) deaths occurred in patients younger than 30 years



CONCLUSIONS

- A large number needed surgery in a country previously unable to provide surgery for patients with RHD.
- Patients are young, predominantly female, present with advanced disease and live far from the only centre able to provide surgery.
- The mortality presumably reflects disease severity but numbers are too small for statistical significance.
- Survival is improved with tissue valves.
- This review highlights health systems challenges faced by RHD National Control Program
 - late presentation of patients
 - high number of patients lost to follow up
 - high mortality rate

REFERENCES

- Damasceno A, Mayosi BM, Sani M, Ogah OS, et al. The causes, treatment, and outcome of acute heart failure in 1006 Africans from 9 countries. *Arch Intern Med.* 2012; 172(18):1386-94. PubMed PMID: 22945249 doi: 10.1001/archinternmed.2012.3310
- Zühlke L, Engel ME, et al. Characteristics, complications, and gaps in evidence-based interventions in rheumatic heart disease: the Global Rheumatic Heart Disease Registry (the REMEDY study). *Eur Heart J.* 2015;36(18):1115-22a.