

# PAKISTAN CHILDREN'S HEART FOUNDATION DATA REVIEW

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## IN-PATIENT CARE: FREQUENCY DISTRIBUTION OF PAEDIATRIC CONGENITAL CARDIOVASCULAR PROCEDURES IN THE LAST 5 YEARS

### Executive Summary

- Paediatric congenital cardiovascular procedures at PCHF are divided into two main categories. Cardiac catheterizations and cardiac surgeries.
- The primary procedure modality through PCHF is surgical.
- The trend of the total frequency of catheterizations and surgeries in each year, from the last 5 years, has been uniform until 2019. A steep fall is recorded from 2019-2020; owing to the reduction in the overall volume of procedures due to COVID-19. However, trend predictions indicate a restoration of uniformity in the difference between catheterizations and surgeries.
- The trend in the difference of the gap in frequency difference between catheterizations and surgeries, from the last 5 years, has been askew.
- This infers that there is a large variation of case presentation. Which makes the pool of patients that fall under the indications for catheterizations very diverse.

### Key findings

- 92.7% of paediatric congenital cardiovascular procedures were surgeries. 7.23% were catheterizations.
- The highest number of catheterizations were recorded in 2017.
- The highest number of surgeries were recorded in 2019.
- The greatest difference between the frequency of catheterizations and surgeries was recorded in 2019. 505 more surgeries were performed as compared to catheterizations.
- The mean difference in each year between surgeries and catheterizations is 308.

### Policy implications

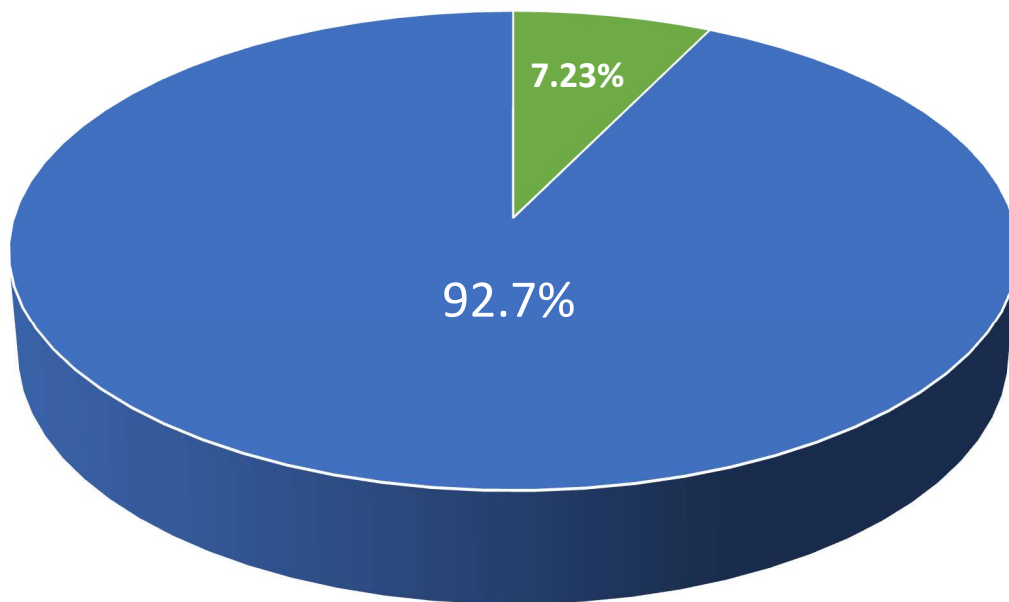
- Catheterizations present the advantage of a minimally invasive route, no scarring, no bypass and less time (around 15 minutes).
- However, such a low recorded number of catheterizations through PCHF implores change for simplifying CHD treatment.
- The cost of device closure techniques in LMICs presents a hurdle. Primarily because of the cost of the device, as opposed to the procedure itself.

### Future trends

- Subsidize the cost of catheterization devices to 10%.
- Introduce self-sufficiency by in-house manufacturing.

**FIGURE 1: PERCENTAGE DISTRIBUTION OF PAEDIATRIC CONGENITAL CARDIOVASCULAR PROCEDURES AT PCHF**

Percentage division of total procedures



■ Catheterisations ■ Surgeries

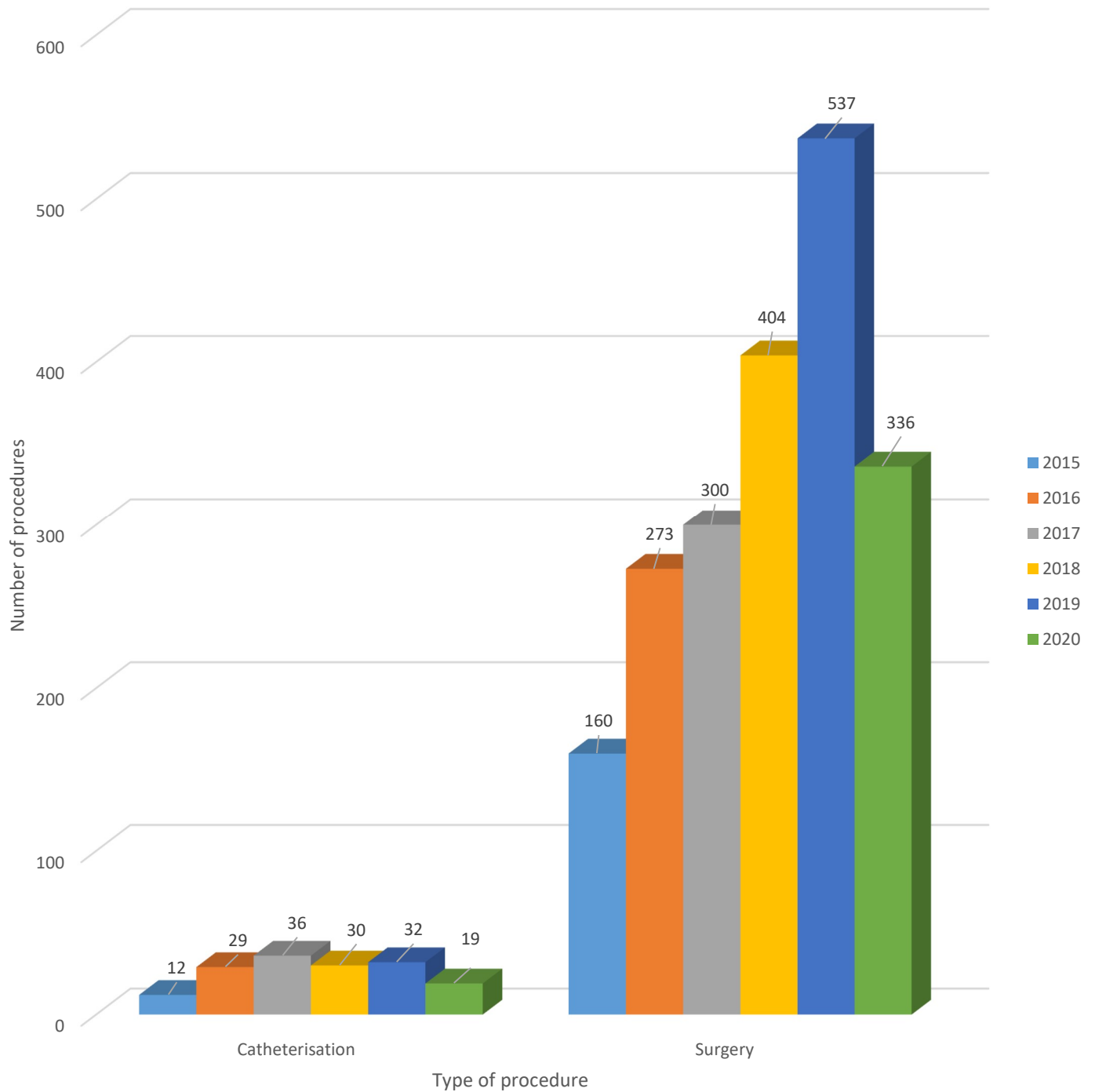
**FIGURE 2: FREQUENCY OF CATHETERIZATIONS**

YEAR	FREQUENCY
2015	12
2016	29
2017	36
2018	30
2019	32
2020	19

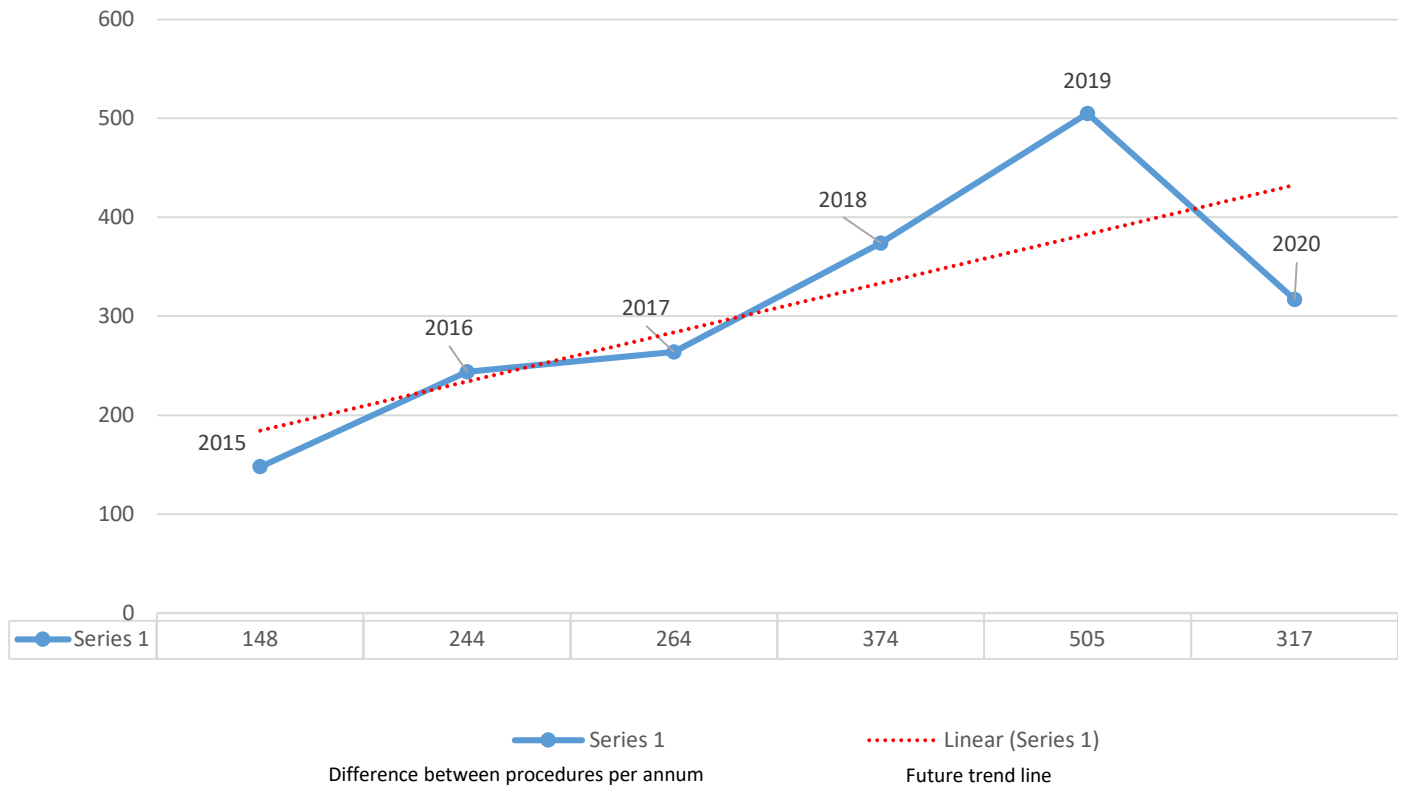
**FIGURE 3: FREQUENCY OF SURGERIES**

YEAR	FREQUENCY
2015	160
2016	273
2017	300
2018	404
2019	537
2020	336

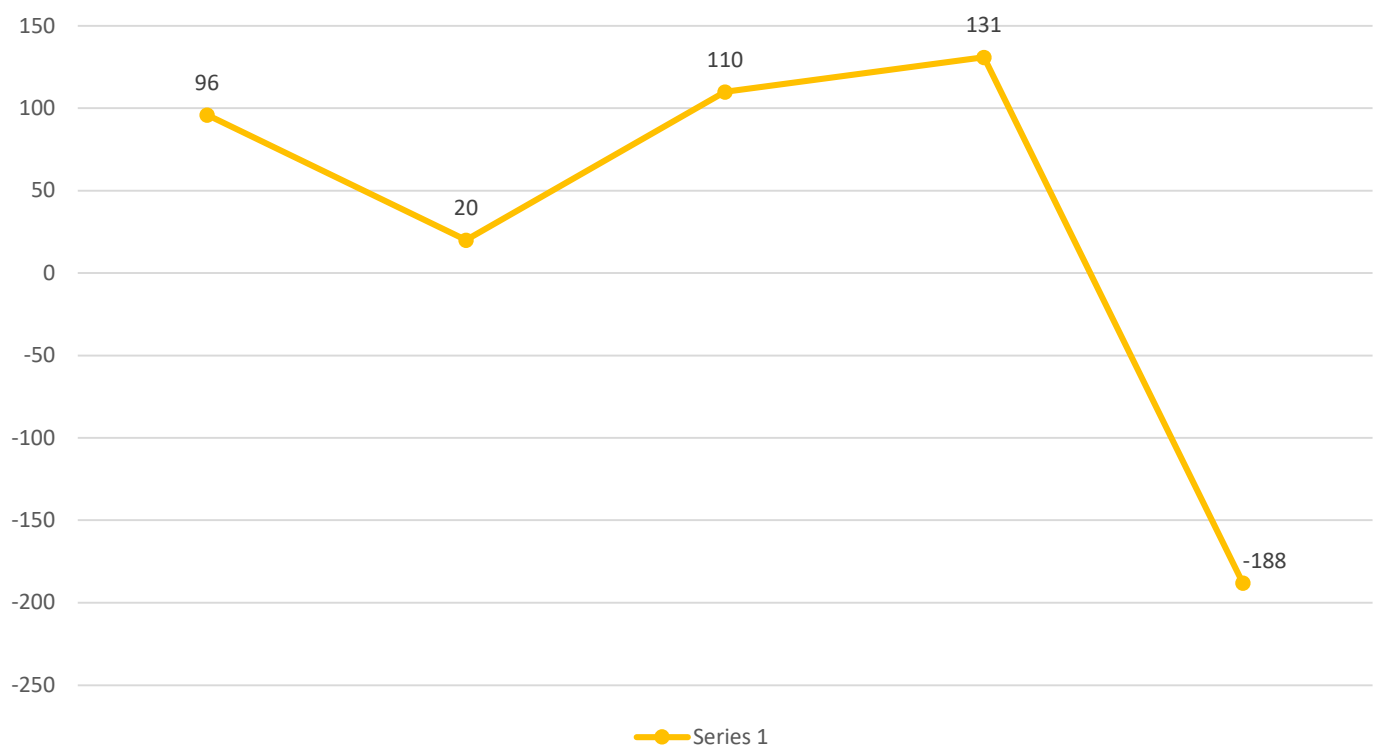
**FIGURE 4: BAR GRAPH OF COMPARISON OF CATHETERIZATIONS AND SURGERIES PER ANNUM OVER THE LAST 5 YEARS**



**FIGURE 5: LINE GRAPH REPRESENTING THE DIFFERENCE IN THE FREQUENCY OF CATHETERIZATIONS AND SURGERIES**



**FIGURE 6: LINE GRAPH OF THE GAP IN THE DIFFERENCE OF THE FREQUENCY OF CATHETERIZATIONS AND SURGERIES**



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