

# Utilization Patterns of Health Insurance Schemes in Karnataka

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Gayathri Raghuraman  
Shanmuga Priya T  
Varun Sharma  
Debanita Chatterjee  
Nakul Nagaraj  
Jyotsna Jha

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# Is Health Insurance the answer?

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- **To Preventing Catastrophic Health Expenditure?**
- **To Providing Equal Health Care Access to all ?**

# CBPS Studies on Health Insurance

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Yeshasvini Claims Data (2011-2013)

Vajpayee Arogyashri Claims Data (2010-2013)

Jayadeva Data on all cardiac patients (2010-2013)

Rashtriya Swasthya Bima Yojana Enrollment Study  
December-January 2014-15

Impact evaluation of the RSBY in Karnataka -2013

# Health Insurance Schemes in Karnataka

## Yeshasvini

Launched in 2003

Tertiary and Secondary  
Medical Care

All Co-operative  
societies

Cashless transaction but  
Rs 210/member/year

Rs 2,00,000 Lakh  
coverage/member

## VAS

Launched in 2009

Tertiary Care Only

All BPL Card holders

Cashless transaction and  
no enrolment fees

Rs 1.5 lakh  
coverage/family

## RSBY

Launched in 2008

Mainly Secondary Care

All BPL Card Holders

Cashless transaction/Rs  
30 /family/year

Rs 30,000  
coverage/family

# Utilization patterns in the Yeshasvini and VAS Schemes

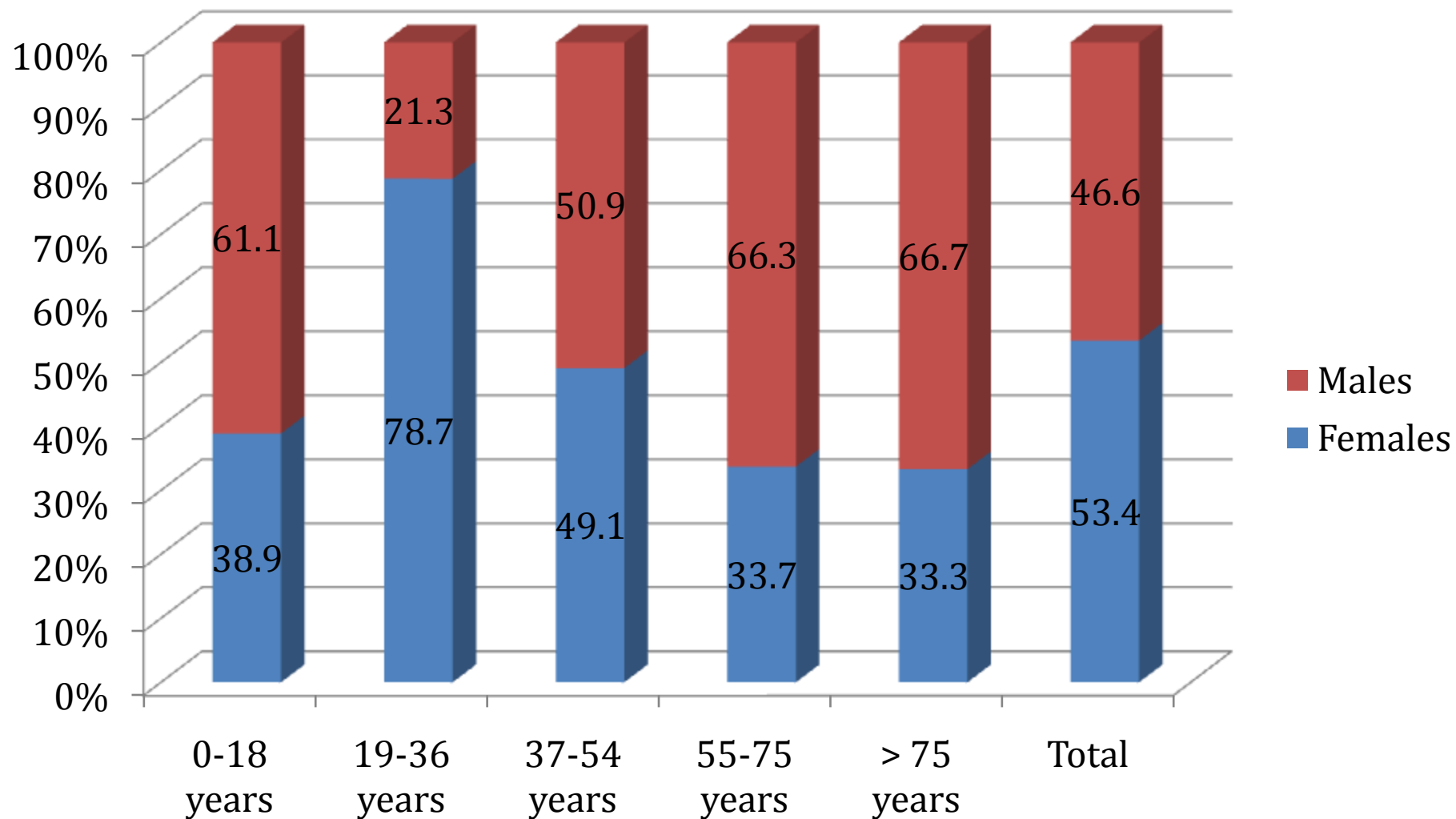
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# Distribution of Yeshasvini claims by Age

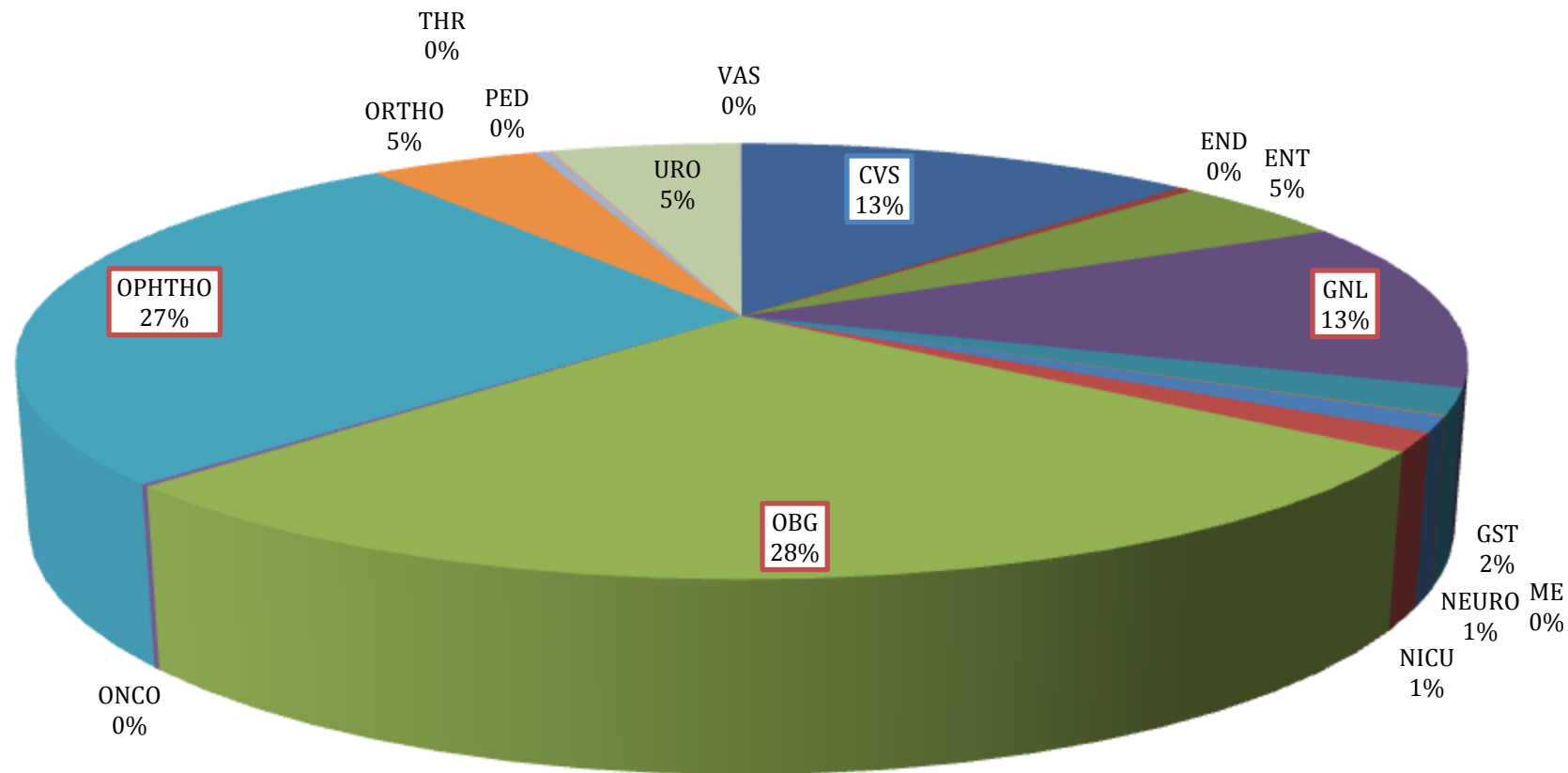
**Distribution of Yeshasvini users by age 2011-2013**

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
<b>0-18 years</b>	10239	7.2
<b>19-36 years</b>	48762	34.2
<b>37-54 years</b>	36295	25.5
<b>55-75 years</b>	47294	33.2
<b>&gt; 75 years</b>	9	0
<b>Total</b>	142599	100

# Analysis of Yeshasvini Claims Data by Age/Gender

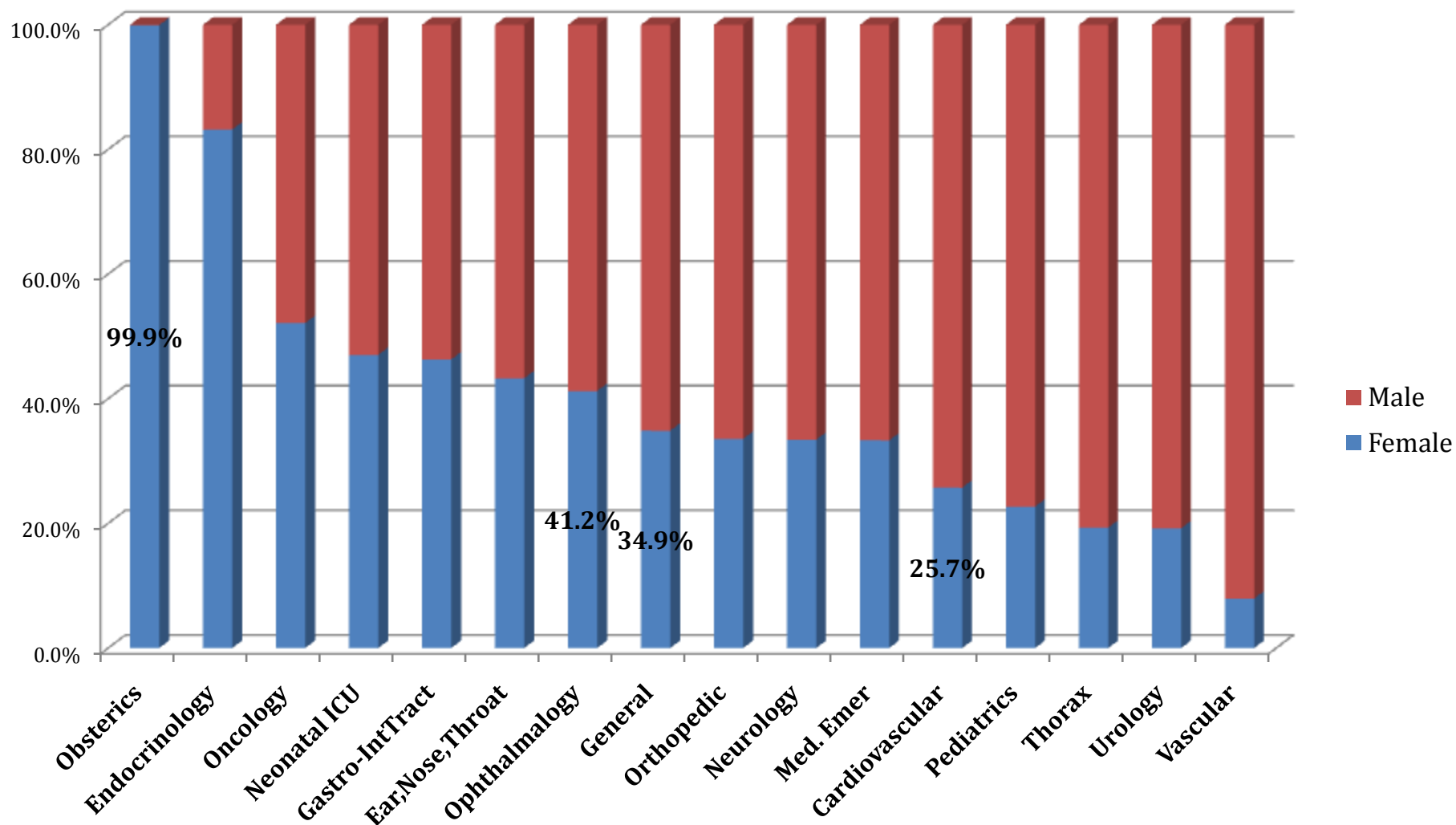


# Distribution of Yeshasvini claims by package





# Distribution of package claims by Gender



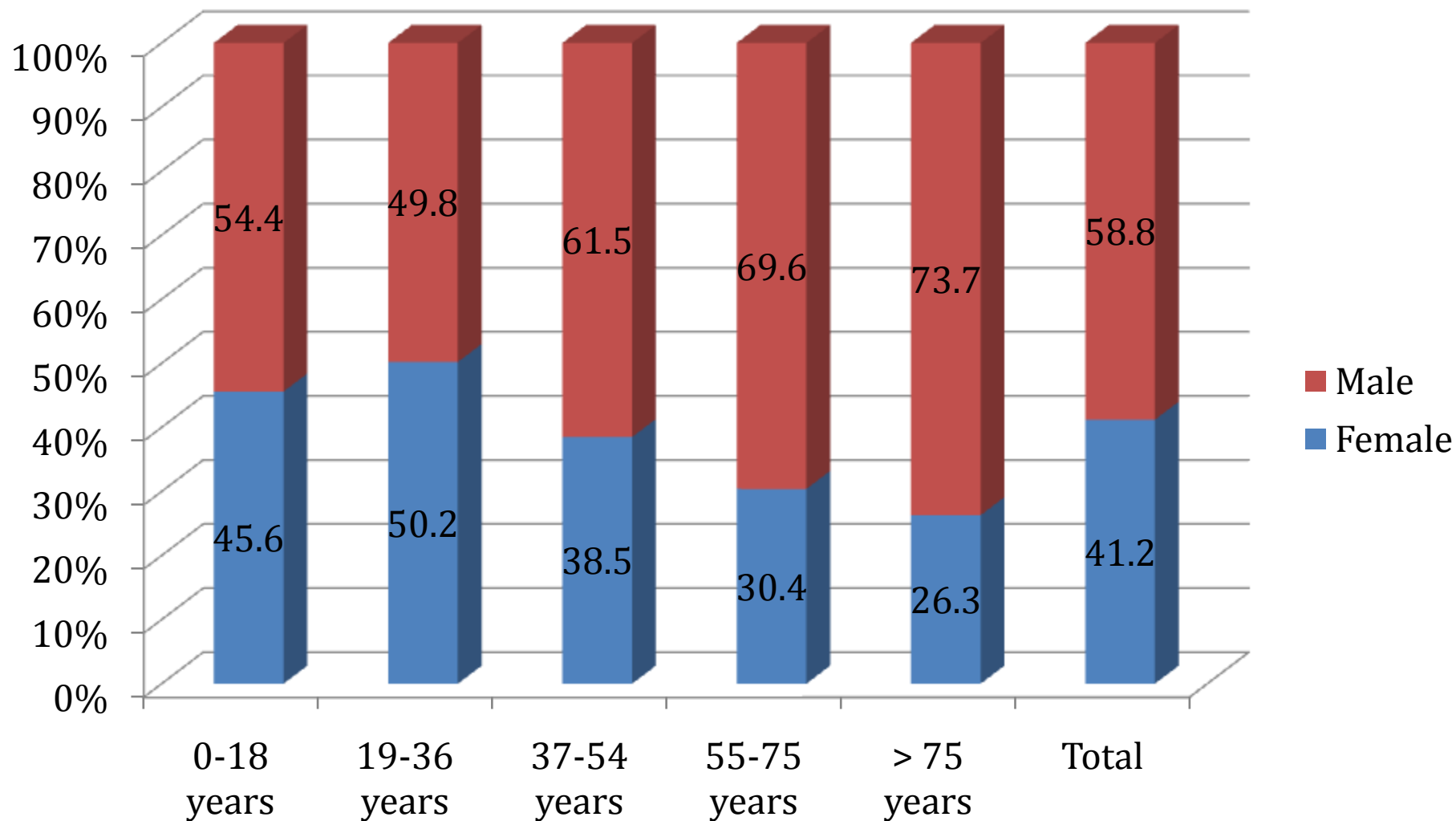
# Has Yeshasvini Improved Access to women?

- Removing Obstetrics category from the packages, claims by women falls from 53% to 35%
- **Have women been reduced to claims only related to the womb??**
- Within Obstetrics, there were almost 41,000 claims of which 48% were for cesarean section(19,900) followed by only 6620 (16.1%) claims for normal delivery, 4200 for hysterectomy (10.2%)
- **Are they being subjected to unneeded procedures?**
- Report on the causes of medical deaths in Karnataka shows that circulatory diseases are the biggest killers and seem to affect men(30.25%) and women(29.92%) **almost equally why are women's claims for CVS causes lower? (only 25%)**
- More women(7.19%) died due to cancer as compared to men( 5.5%)- **oncology claims are less than 1%**

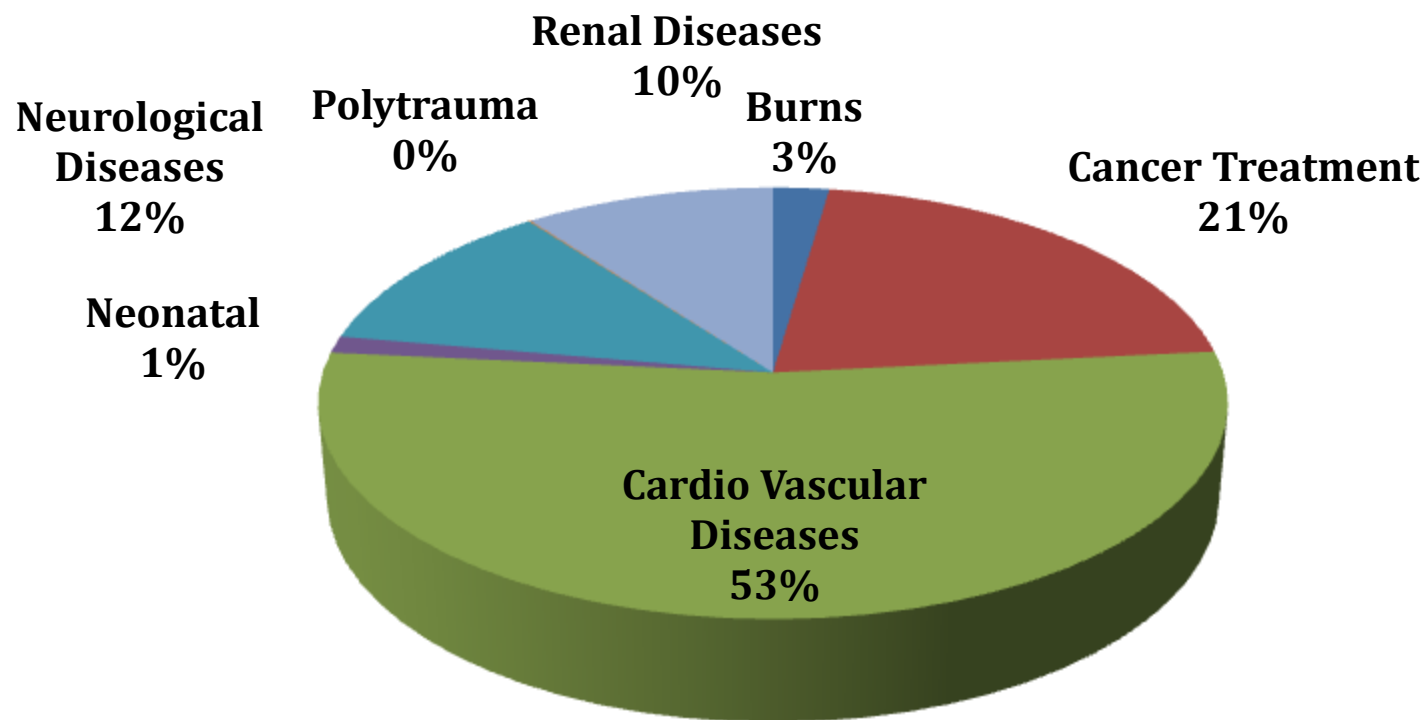
# Distribution of VAS Users by age

Age	Frequency	Percent
0-18 years	5367	21.9
19-36 years	5806	23.7
37-54 years	8556	35
55-75 years	4638	18.9
> 75 years	114	0.5
Total	24483	100

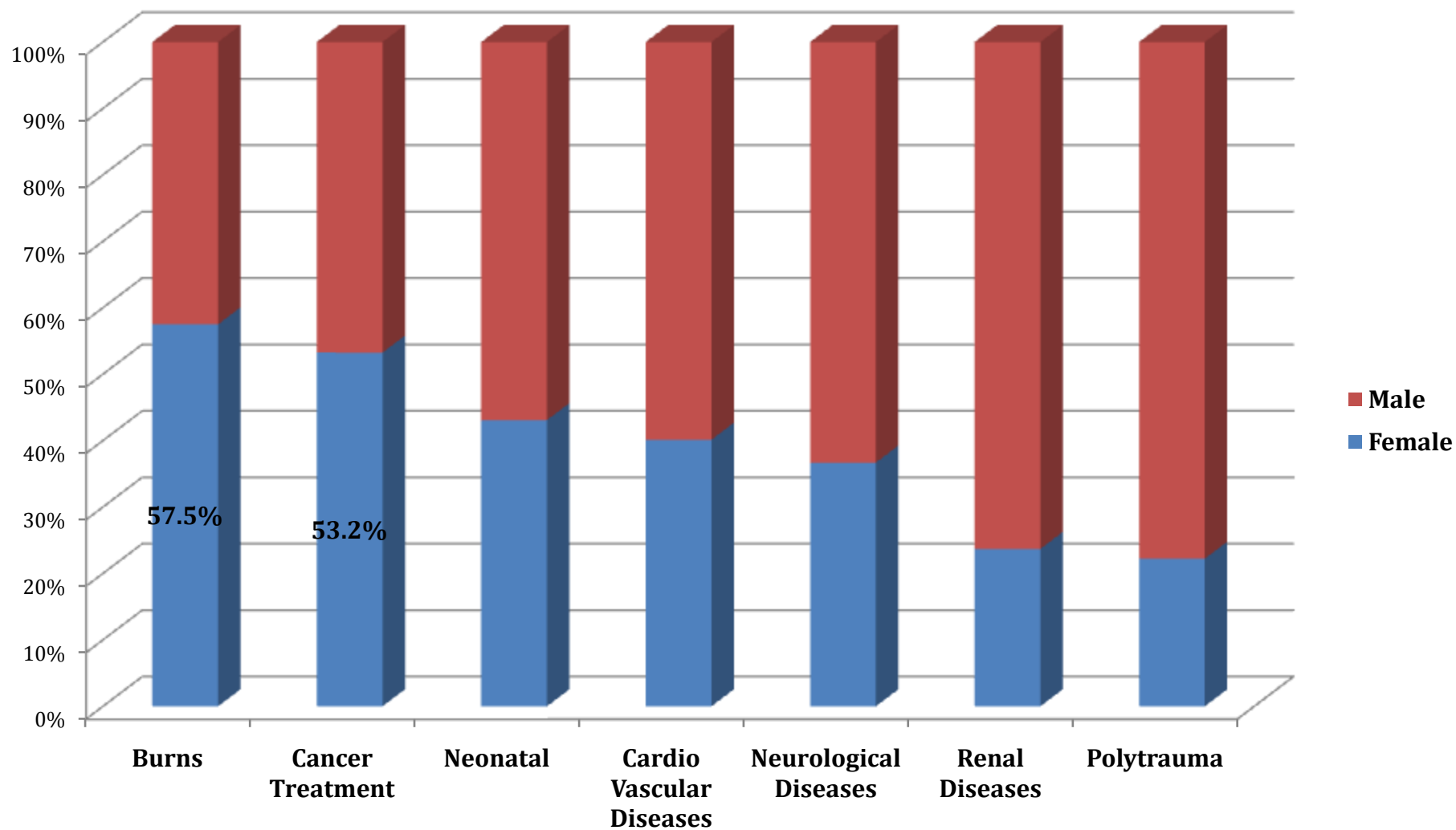
# Analysis of VAS Claims Data by Age/Gender



# Utilization of VAS by Procedure



# Usage of VAS packages by Gender



## Vajpayee Arogyashri – Does it improve access to women?

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- Like Yeshasvini lesser number of women are accessing VAS as compared to men
- Data may show the importance of providing cancer care to women
- Data may also show the need to provide coverage for burns in other schemes as well (e.g. Yeshasvini)

# Children's access to services- Congenital Heart Disease Study

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- Are Children able to access the care they require? How do they figure in these schemes?



# Expenditure on children (0-18 years) in Yeshasvini (2011-13)

Package	Frequency	Percent	Total Expenditure (INR)	Mean Expenditure (INR)	Percent Expenditure
NICU	<b>2027</b>	<b>19.8</b>	5429157	2678	<b>4.8</b>
GNL	1878	18.3	11618039	6186	10.2
ENT	1674	16.3	9264580	5534	8.1
CVS	<b>1190</b>	<b>11.6</b>	55858600	46940	<b>49.1</b>
OPHTHO	852	8.3	6938166	8143	6.1
ORTHO	698	6.8	6740844	9657	5.9
PED	630	6.2	5893387	9355	5.2
OBG	506	4.9	2822900	5579	2.5
URO	470	4.6	4158290	8847	3.7
GST	142	1.4	1711516	12053	1.5
NEURO	120	1.2	2733003	22775	2.4
THR	18	0.2	304636	16924	0.3
END	10	0.1	82200	8220	0.1
ME	10	0.1	16250	1625	0
ONCO	10	0.1	188848	18885	0.2
VAS	4	0	51000	12750	0
Total	10239	100	113811416	11115	100

## Expenditure on children (0-18 years) in VAS (2010-13)

Disease	Frequency	Percent	Total Expenditure (INR)	Mean Expenditure (INR)	Percent Expenditure
Cardio Vascular Diseases	<b>3780</b>	<b>70.6</b>	248170037	65653.45	<b>85.4</b>
Neurological Diseases	352	6.6	10528493	29910.49	3.6
Renal Diseases	339	6.3	6300180	18584.6	2.1
Cancer Treatment	307	5.7	8823705	28741.71	3
Neonatal	303	5.7	8704415	28727.44	2.9
Burns	266	5	7838679	29468.72	2.7
Polytrauma	6	0.1	144000	24000	0
Total	5353	100	290509509	54270.41	100

# Distribution of cardiac claims in Yeshasvini and VAS by age and gender

Table 2: Distribution of all Cardiac patients using Yeshasvini by Age and Gender (2011-13)

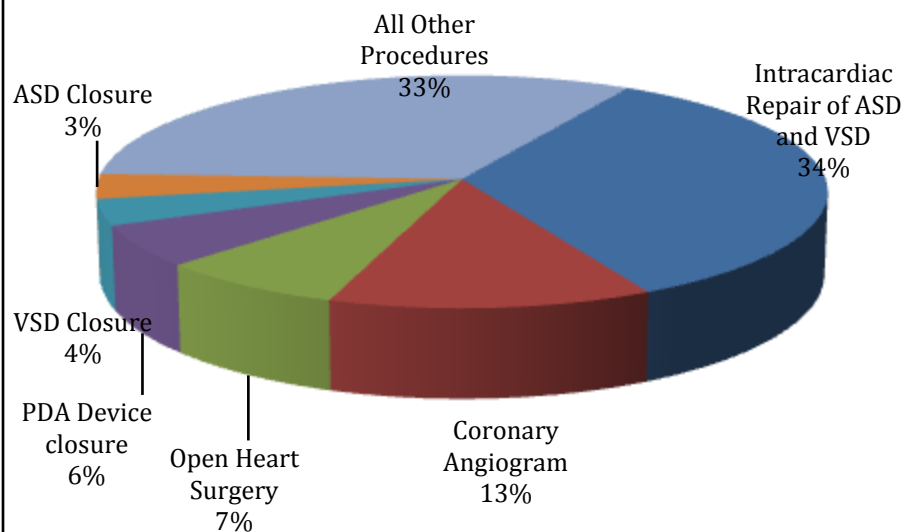
Age Category	Gender					
	Female		Male		Total	
	Frequency	Percent	Male	Frequency	Total	Percent
0-18 years	472	39.7	718	60.3	1190	6.9
19-36 years	785	45.8	930	54.2	1715	10.0
37-54 years	1501	24.7	4579	75.3	6080	35.5
55-75 years	1653	20.3	6499	79.7	8152	47.6
Total	4411	25.7	12726	74.3	17137	100.0

Table 3: Distribution of all Cardiac patients using VAS by Age and Gender (2010-13)

Age Category	Gender					
	Female		Male		Total	
	Frequency	Percent	Male	Frequency	Total	Percent
0-18 years	1816	48.0	1970	52.0	3786	29.1
19-36 years	1680	57.0	1269	43.0	2949	22.7
37-54 years	1178	29.4	2834	70.6	4012	30.8
55-75 years	533	24.0	1688	76.0	2221	17.1
>75 years	13	31.7	28	68.3	41	0.3
Total	5220	40.1	7789	59.9	13009	100.0

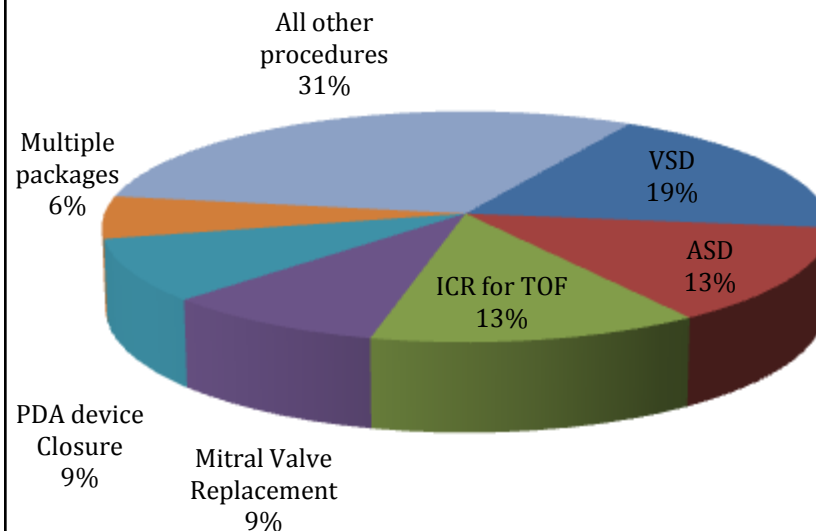
# Distribution of cardiac procedures 0-18 year olds

Percentage Distribution of Cardiac procedures in 0-18 year old in Yeshasvini (2011-13)



45% of cardiac claims in Yeshasvini was for CHD

Percentage distribution of Cardiac procedures for 0-18 year olds in VAS (2010-13)



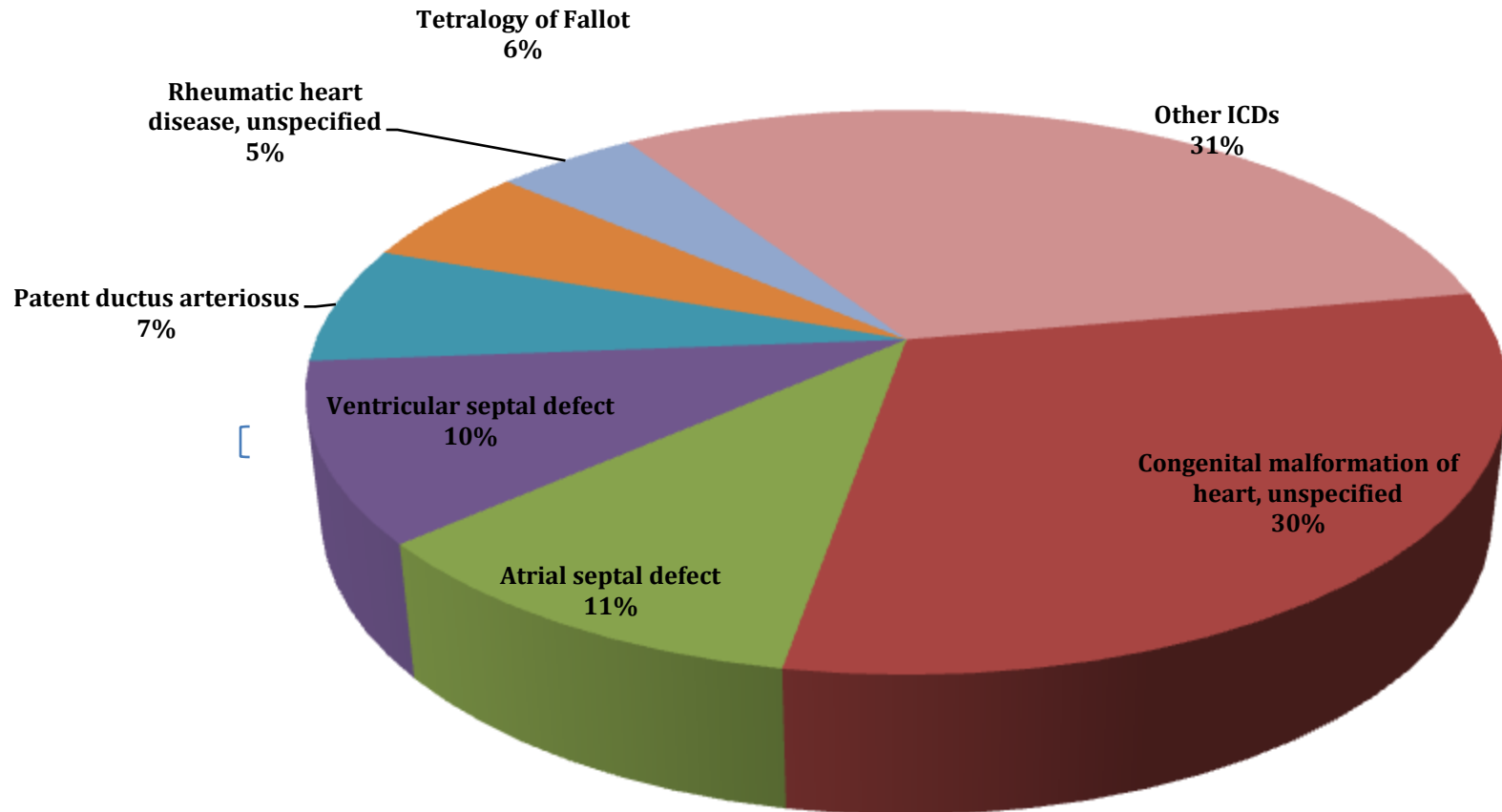
54 % of cardiac claims in VAS was for CHD

# Congenital Heart Diseases

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- Congenital disorders are the fourth largest cause of neonatal mortality. In India it is estimated that every 1 in 33 infants suffer from a congenital defect.
- Congenital Heart Diseases are defined as any defect in the function or anatomy of the heart at birth and are the most common type of defect
- Causes: Rubella during pregnancy/Chromosomal or genetic disorder like Down's Syndrome/ smoking , drug abuse or medications during pregnancy .
- With the decrease in infant mortality rates due to improved maternal screening and treatment, the incidence of congenital malformations in India has become more apparent.

# Percentage Distribution of diseases amongst 0-18 year old in Jayadeva Hospital(2010-2013)



65% of children accessed treatment for Congenital Heart Disease

# Impact of Health Insurance Schemes on children?

- Children most commonly require surgical treatment for Congenital Heart Disease which is not only debilitating it is also an expensive disease to treat
- However access to children also follows gender norms as seen from Jayadeva data, where more women as compared to men (19-36 year olds) sought treatment for CHD as compared to girls(0-18 years old)
  - More girls as compared to boys are not treated or their diagnosis is missed as children. Treatment becomes important in the reproductive age group
- Further study on why VAS 21% are children while it is only 6.6% in Yeshasvini.
  - Does presence of enrolment fee dissuade parents from enrolling in the scheme
  - Is the scheme not covering enough child specific conditions?
  - Are Marginalized children being left out?

# Has Health Insurance Improved Access?

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- To women?
- To children?
  
- NO!!

**Problems in Policy Formulation!!!**  
**Lack of Monitoring!!**



# A Policy Problem: Take RSBY Enrolment Study

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- RSBY Enrolment Study Conducted in Bangalore-Rural and Shimoga; January- February 2015
- Annual Enrolment
  - Cumbersome Process
  - Expensive Process
    - Usage of Human resources
    - Usage of smart cards
    - Power Outages
- Lack of Patient Empowerment:
  - Patients do not have knowledge of scheme, coverage and eligibility
  - Insufficient coverage in terms of availability of hospitals/ advertisement for the scheme as seen in RSBY impact evaluation study
  - Inability to use scheme when required – as seen by dismal hospitalization rates in 2 rounds of RSBY impact evaluation study done by CBPS

# A Problem of Policy: Yeshasvini , Vajpayee Arogyashri, RSBY

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- **A problem of Data:**

- Problems in Yeshasvini data on procedures performed due to large number of missing values especially in 2011-12 & No data on diagnosis
- Data on socio-economic status and caste unclear
- Unavailability of data hampers monitoring and research

- **A Problem of Hospital Availability**

- No importance given to improving conditions of public hospitals
- Most hospitals are private and are concentrated in Bengaluru

# **Is Health Insurance Scheme the answer for Universal Coverage?**