

CHAPTER 2: PATIENT CHARACTERISTICS

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This chapter examines demographic and clinical parameters of patients who underwent Percutaneous Coronary Intervention (PCI) during the calendar year 2007 in Malaysian PCI sites that contributed to this inaugural report.

In total, 3677 patients underwent PCI in Malaysia in the year 2007, with 3920 procedures performed: 3442 patients had 1 PCI, 227 patients had two PCIs, and eight patients had three PCIs performed.

The mean age of the patients was 56.7 ± 10.11 years. Twenty four percent (24%) of them were aged below 50 years, 64.9% aged between 50 and 70 years while 11.1% were aged 70 years and above. Approximately eighty one percent (81.2%) of the patients were male. Under ethnic distribution, 46.7% were Malays, 25.1% Chinese and 23.8% Indians. Non-Malay Bumiputeras accounted for 1.8% of those who underwent PCI.

In terms of admission status of the patients undergoing PCI, 71.4% were elective admissions, while 20.5% were referred cases. Notably, 4.7% of the patients were referred from the emergency department, and a further 0.9% was transferred from another facility for this procedure.

Significant past medical history

Cardiovascular risk factor (CVRF) profiling of patients undergoing PCI was undertaken: smoking habit, dyslipidaemia, hypertension, diabetes, family history of premature cardiovascular disease (CVD) and a known history of myocardial infarction (MI). In addition, we also analysed other factors such as previously documented coronary artery disease (CAD), history of new-onset angina, history of congestive cardiac failure (CCF), chronic lung disease, cerebrovascular disease, peripheral artery disease and chronic renal impairment.

With 81.4% of data fields pertaining to smoking history complete, we found that 16% of those undergoing PCI were current smokers, 28.6% former smokers, and 36.8% who were non-smokers.

Of the other more contemporary CVRF, 75.3% of patients undergoing PCI had a history of dyslipidaemia, 74.2% had hypertension, 45.6% had diabetes (with 73.8% requiring only oral hypoglycaemic agents, and 9.1% requiring insulin), and 16% having family history of premature CVD.

About thirty five percent(34.8%) of the patients undergoing PCI had a previous documented history of MI, 54.7% had previous documented CAD, 23% had new-onset angina, 3.4% had a known history of CCF, 0.8% with chronic lung disease, 1.6% with cerebrovascular disease, 1% with peripheral vascular disease and 6% with chronic renal failure.

About twenty two percent (21.7%) of the patients undergoing PCI were known to have history of CAD (i.e. combining those previously known to have had a MI, angiographically documented CAD >50% or history of angina – chronic or new onset).

The mean baseline creatinine was 125.36 mcmol/L, with a median of 98.0 mcmol/L (ranged from 60 – 1280 mcmol/L). Baseline serum cholesterol was 4.57 ± 1.35 mmol/L; serum LDL was 2.64 ± 1.26 mmol/L. Mean body mass index (BMI) of the patients was 26.38 ± 4.21 kg/m². About twenty three percent (22.9%) of the patients had had a previous PCI performed, while 3.6% had previous coronary artery bypass surgery.

PCI Institutions and other Sub-analyses

In the eight reporting sites for PCI in 2007, we noted that the Institut Jantung Negara occupied the prime position for procedures performed, responsible for 58.9% of the total number reported nationally. The Ministry of Health tertiary referral Cardiology centres in Penang (Penang Hospital, PH), Kuching (Sarawak General Hospital, SGH) and Johor Bahru (Sultanah Aminah Hospital, SAHJB) were responsible for 12.5%, 9.7% and 8.3% of reported PCI procedures performed, respectively. University Malaya Medical Centre (UMMC) was responsible for 9.6% of the total reported PCIs performed nationally. These five reporting centres accounted for approximately 99% of reported PCI procedures for 2007 in Malaysia. For the purpose of subsequent analyses and sub-analyses, we have focused on data from these five sites (Refer to table 2.2b).

In terms of ethnic distribution of patients undergoing PCI, there was a fair reflection of the population of the referral base, for each site. In the four highest reporting sites in West Malaysia (IJN, PH, SAHJB and UMMC), Malays accounted for 38.6 - 53.9% of the patients undergoing PCI, with 17.4 - 36.4% Chinese and 22.5 - 34.2% were of Indian ethnic origin. In the East Malaysian site (SGH), Malays accounted for 21.4%, Chinese 55.1%, Indians 0.9%, while 21.7% were Non-Malay Bumiputeras.

Gender distribution amongst the five sites was generally similar, with more men undergoing PCI as compared to women. The largest variation- was at UMMC (73% male) and SGH (90.6% male).

The age variations for patients undergoing PCI were more notable: About twenty seven percent (26.7%) of male patients were under 50 years old, while only 12.4% of females were in this age group. About thirty five percent (34.8%) of male patients were over the age of 60 years, as compared to 57.8% of females. In the age group between 50 and 60 years of age, 38.5% were male as compared to 29.8% female.

Age-gender-ethnic group analyses revealed interesting findings: amongst male patients, 14.2% were Malays under the age of 50 years, as compared to 6.9% Indians, 4.7% Chinese and 1.1% were males of other (Non-Malay Bumiputeras, other Malaysians and Foreigners combined) ethnic groups. Amongst female patients, 5.8% were Malays under the age of 50 years, as compared to 4.7% Indians, 1.2% Chinese and 0.6% were females of other ethnic groups.

In the analyses of the presence of the more common CVRF (dyslipidaemia, hypertension, diabetes, family history of premature CVD, smoking and obesity), we noted that in our patients undergoing PCI, 98.4% had at least 1 risk factor (6.5% with one risk factor, 19.3% with two risk factors , 33.3% with three risk factors, and 39.4% with four or more risk factors). These findings were comparable between genders.

Discussion

Comparing our patients who underwent PCI with other major Registries (SCAAR¹ and Ontario²), it is clear that our reported patient population is different. Our patients are younger (56.7 year old in NCVD-PCI vs. 65.7 years old in SCAAR vs. 62.3 years old, in Ontario, [mean age in years]) and have a higher proportion of males (81.2% in NCVD-PCI vs. 71.7% in SCAAR vs. 72.2%, in Ontario). Malaysian patients undergoing PCI appear to be of a higher risk category when comparing the presence of some risk factors such as diabetes (45.6% in NCVD-PCI vs. 19.6% in SCAAR vs. 31.3%, in Ontario) and hypertension (74.2% in NCVD-PCI vs. 45.0% in SCAAR vs. 36.8% in Ontario). However in contrast, relatively less of our PCI

population are active smokers (16% in NCVD-PCI vs. 19% in SCAAR) with a lower past history of heart failure (3.4% in NCVD-PCI vs. 7.6% in SCAAR vs. 5.2%, in Ontario). The differences in the findings regarding ethnic demographics in the age-gender analyses could indicate a different pathophysiological process of premature development of CAD, as do the findings of a relatively bigger population, particularly the male gender under the age of 50 years, without established CVRF, who undergo PCI in Malaysia. On the other hand, overall for our PCI population, significantly, 98.4% have at least one established CVRF.

Summary

1. In 2007, we recorded 3677 patients who underwent 3920 PCI procedures in Malaysia.
2. About 71% percent (71.4%) of PCI procedures were performed as elective cases.
3. Malaysians undergoing PCI (mean age of 56.7 years) were younger as compared to those patients in some developed countries.
4. About ninety eight percent (98.4%) of patients undergoing PCI had at least one established cardiovascular risk factor.
5. We have a higher incidence of diabetes among the patients (45%) undergoing PCI.

References

1. Bo L., James S.K., Stenestrand U., et al. Long-Term Outcomes with Drug-Eluting Stents versus Bare-Metal Stents in Sweden. *New England Journal of Medicine*. 2007; 356:1009-19
2. Tu J.V., Bowen J., Chiu M., et al. Effectiveness and Safety of Drug-Eluting Stents in Ontario. *New England Journal of Medicine*. 2007; 357:1393-402

Table 2.1 Characteristics of patients who underwent PCI, NCVD-PCI Registry, 2007

	Total No. of Patients=3677	
	n	%
Demographics		
Age, Years		
N	3677	
Mean(SD)	56.7 (10.11)	
Median (min,max)	57 (23,90)	
Age group, no. (%)		
20-<30	15	0.4
30-<40	144	3.9
40-<50	725	19.7
50-<60	1355	36.9
60-<70	1031	28
70-<80	379	10.3
>=80	28	0.8
Gender, no. (%)		
Male	2986	81.2
Female	691	18.8
Ethnic group, no. (%)		
Malay	1718	46.7
Chinese	924	25.1
Indian	874	23.8
Orang Asli	0	0
Kadazan Dusun	1	0
Melanau	0	0
Murut	0	0
Bajau	0	0
Bidayuh	12	0.3
Iban	56	1.5
Punjabi	46	1.3
Other Malaysian	26	0.7
Foreigner	14	0.4
Not Available	6	0.2
Other coronary risk factors		
Smoking, no. (%)		
Never	1354	36.8
Former (quit>30 days)	1051	28.6
Current (any tobacco use within last 30 days)	587	16
Not Available	685	18.6

	Total No. of Patients=3677	
	n	%
Family history of premature cardiovascular disease, no. (%)		
Yes	598	16.3
No	2594	70.5
Not known	485	13.2
Body Mass Index (BMI), kg/m ²		
N	2735	
Mean(SD)	26.38 (4.21)	
Median (min,max)	26.03 (14.88,51.37)	
BMI, kg/m ² , no. (%)		
<18.2	36	1.3
18.5-23	522	19.1
>23	2177	79.6
Co-morbidities		
Dyslipidaemia, no. (%)		
Yes	2770	75.3
No	659	17.9
Not known	248	6.7
Hypertension, no. (%)		
Yes	2730	74.2
No	871	23.7
Not known	76	2.1
Diabetes, no. (%)		
Yes	1676	45.6
No	1906	51.8
Not Known	95	2.6
Type of diabetes treatment, no. (%)		
OHA	1237	73.8
Insulin	153	9.1
OHA + Insulin	29	1.7
Not Known	257	15.3
Myocardial infarction history, no. (%)		
Yes	1280	34.8
No	2167	58.9
Not known	230	6.3

	Total No. of Patients=3677	
	n	%
Documented Coronary Artery Disease, no. (%)		
Yes	2012	54.7
No	1555	42.3
Not known	110	3
New onset angina (<2weeks), no. (%)		
Yes	846	23
No	2726	74.1
Not known	105	2.9
Congestive Heart Failure (2weeks prior), no. (%)		
Yes	124	3.4
No	3440	93.6
Not known	113	3.1
Chronic lung disease, no. (%)		
Yes	28	0.8
No	3577	97.3
Not known	72	2
Cerebrovascular disease, no. (%)		
Yes	57	1.6
No	3547	96.5
Not known	73	2
Peripheral vascular disease, no. (%)		
Yes	36	1
No	3560	96.8
Not known	81	2.2
Chronic renal failure (>200micromol), no. (%)		
Yes	220	6
No	3377	91.8
Not known	80	2.2
* Coronary artery disease, no. (%)		
Yes	2775	75.5
No	798	21.7
Not known	104	2.8

**Coronary artery disease is defined as "Yes" on any of the following co-morbidities: 1) History of myocardial infarction, 2) Documented CAD >50% stenosis, 3) Chronic angina (onset more than 2 weeks ago), 4) New onset angina (less than 2 weeks)*

Note: 'Not known' includes patients who do not know their co-morbidities as well as missing data

	Total No. of Patients=3677	
	n	%
Baseline investigation		
Baseline creatinine, mmol/L		
N	3403	
Mean(SD)	125.36 (125.82)	
Median, (min,max)	98.0 (60.0,1280.0)	
Not Available	274	7.5
Baseline creatinine, mmol/L		
<100 mmol/L	1785	48.5
100 – 199 mmol/L	1419	38.6
> 200 mmol/L	199	5.4
Not Available	274	7.5
**Total cholesterol, mmol/L		
N	1162	
Mean(SD)	4.57 (1.35)	
Median, (min,max)	4.3 (2.5,24.2)	
Not Available	850	42.3
**LDL levels, mmol/L		
N	1142	
Mean(SD)	2.64 (1.26)	
Median, (min,max)	2.4 (1.0,18.0)	
Not Available	870	43.3
Previous Intervention		
Previous PCI, no. (%)		
Yes	841	22.9
No	2824	76.8
Not Available	12	0.3
Previous CABG, no. (%)		
Yes	133	3.6
No	3527	95.9
Not Available	17	0.5

**** Mean (SD) of Total Cholesterol, mmol/L and LDL levels, mmol/L is of the patients who had documented coronary artery disease**

Admission status, no. (%)	Total No. of Patients=3677	
	n	%
Referral	754	20.5
Elective	2625	71.4
Emergency Department	174	4.7
Transfer from other facility	33	0.9
Out of hospital cardiac arrest	1	0
Others	17	0.5
Not Available	73	2

Figure 2.1.1 Age group (years) distribution of patients who underwent PCI, NCVI-PCI Registry, 2007

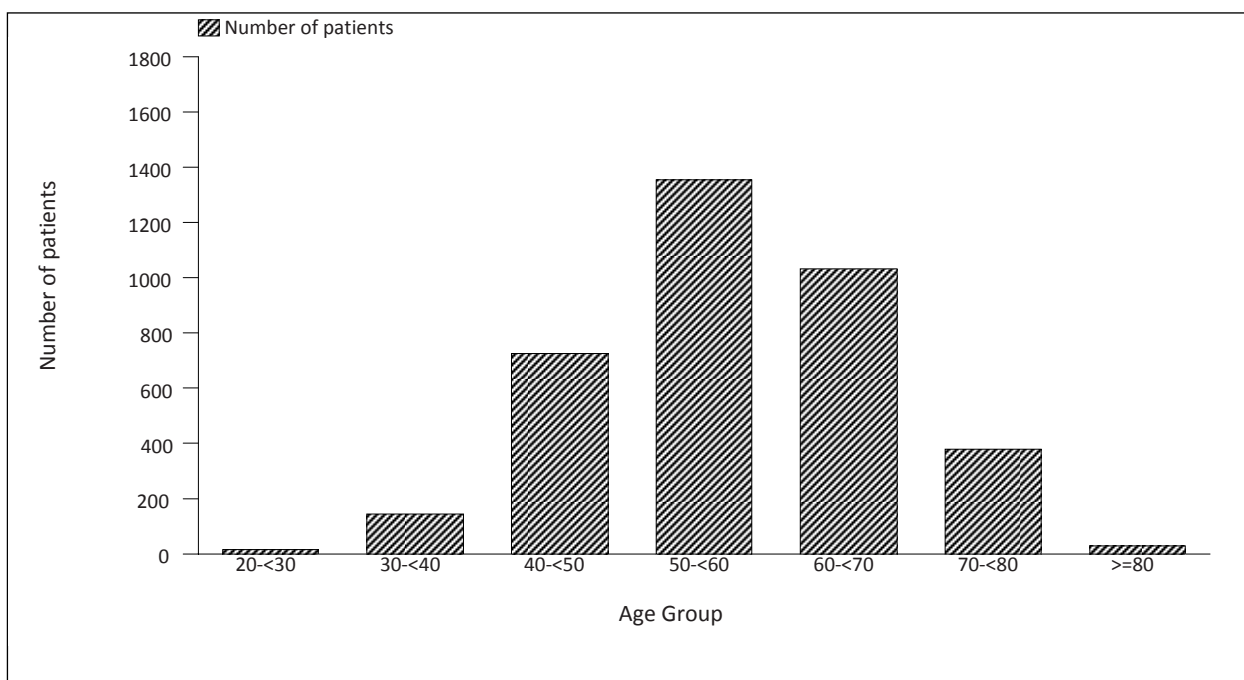


Figure 2.1.2 Gender distribution of patients who underwent PCI, NCVD-PCI Registry, 2007

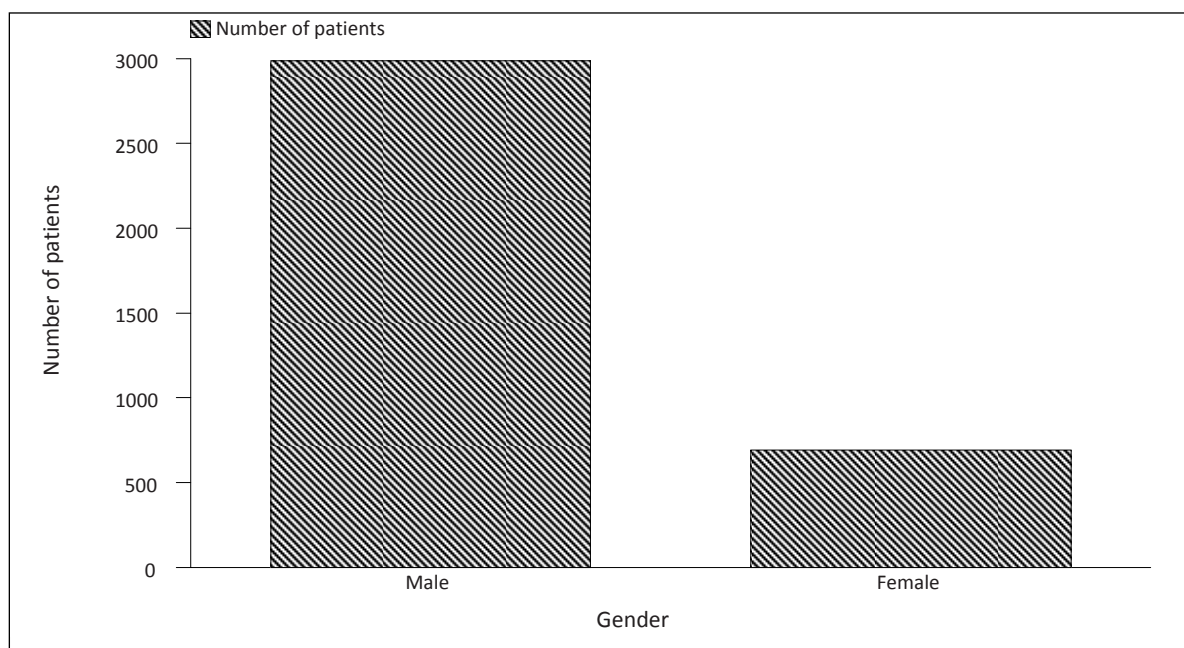


Figure 2.1.3 Ethnic group distribution of patients who underwent PCI, NCVD-PCI Registry, 2007

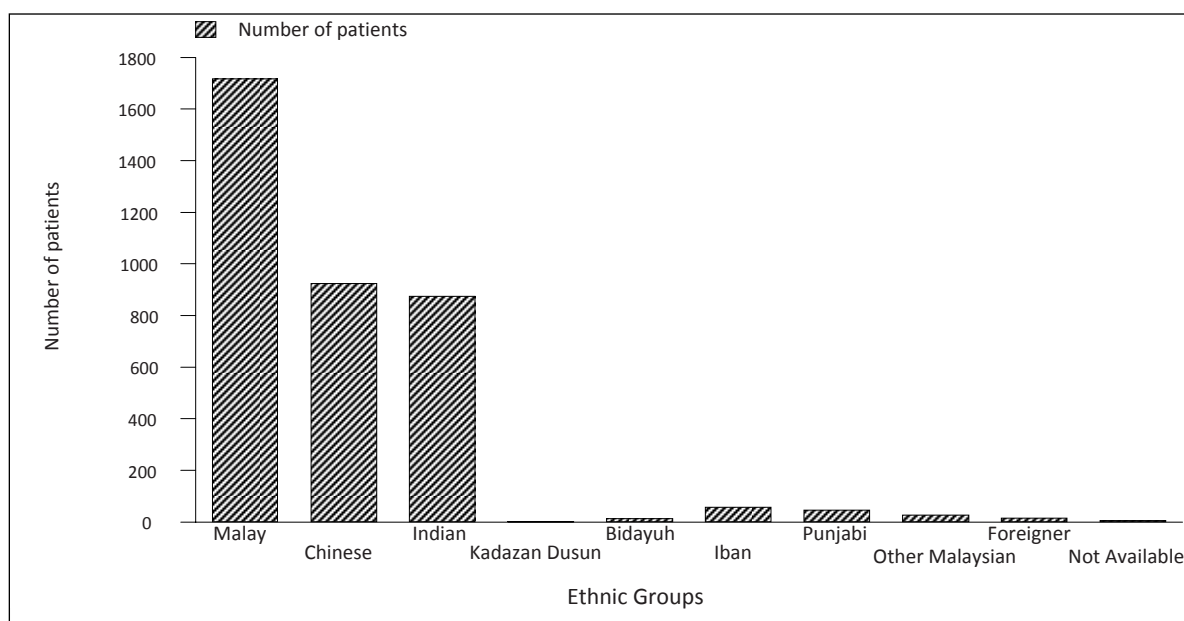


Figure 2.1.4 Smoking status of patients who underwent PCI, NCVD-PCI Registry, 2007

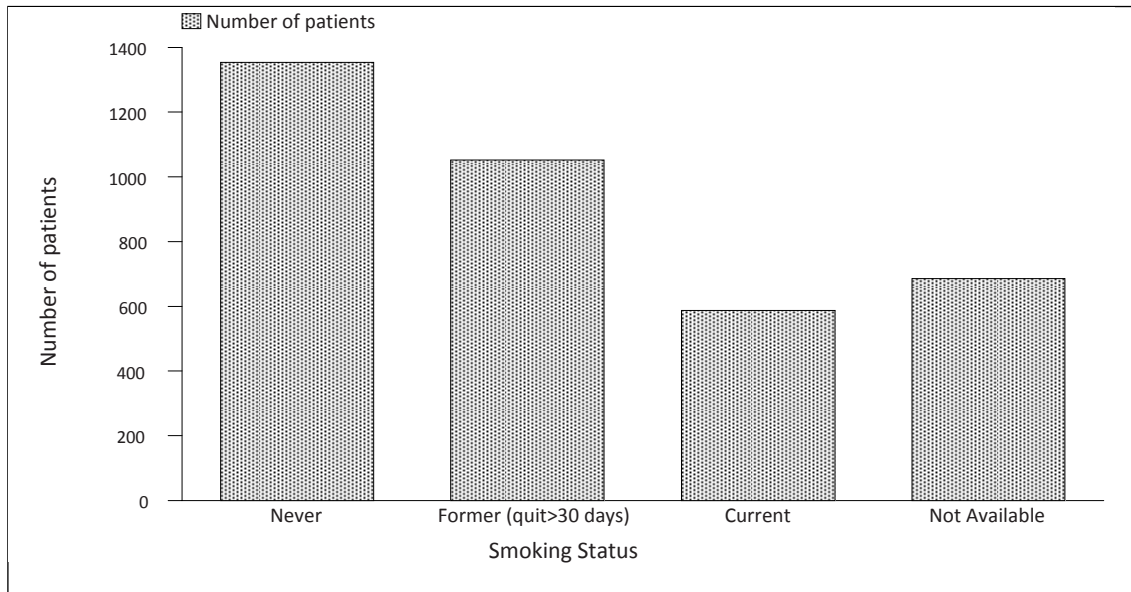


Figure 2.1.5 Family history of premature cardiovascular disease of patients who underwent PCI, NCVD-PCI Registry, 2007

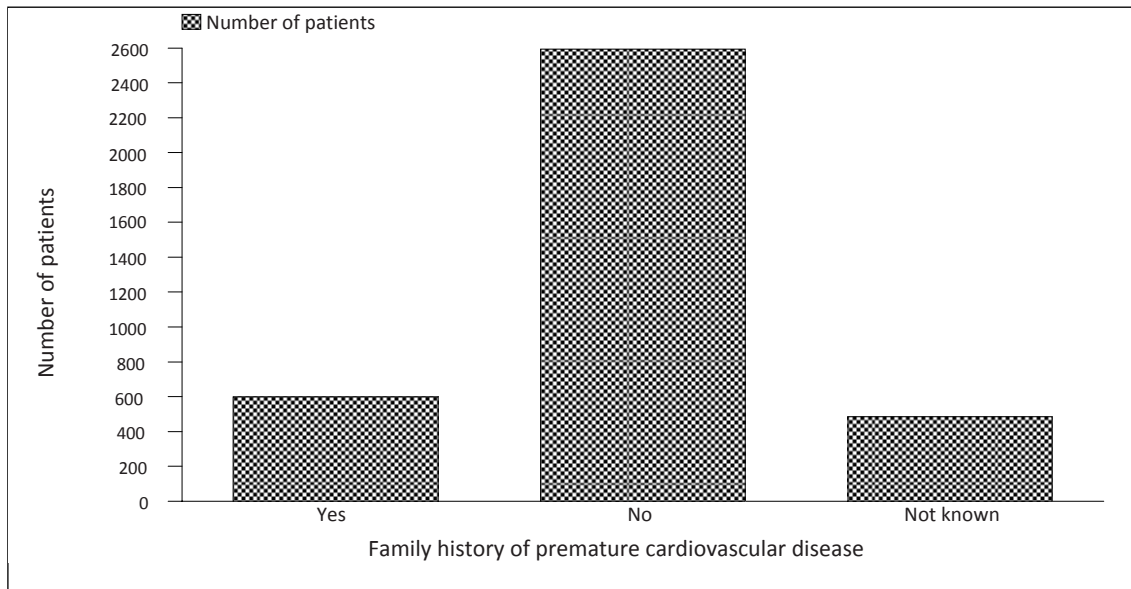


Figure 2.1.6 Body Mass Index (BMI) of patients who underwent PCI, NCVD-PCI Registry, 2007

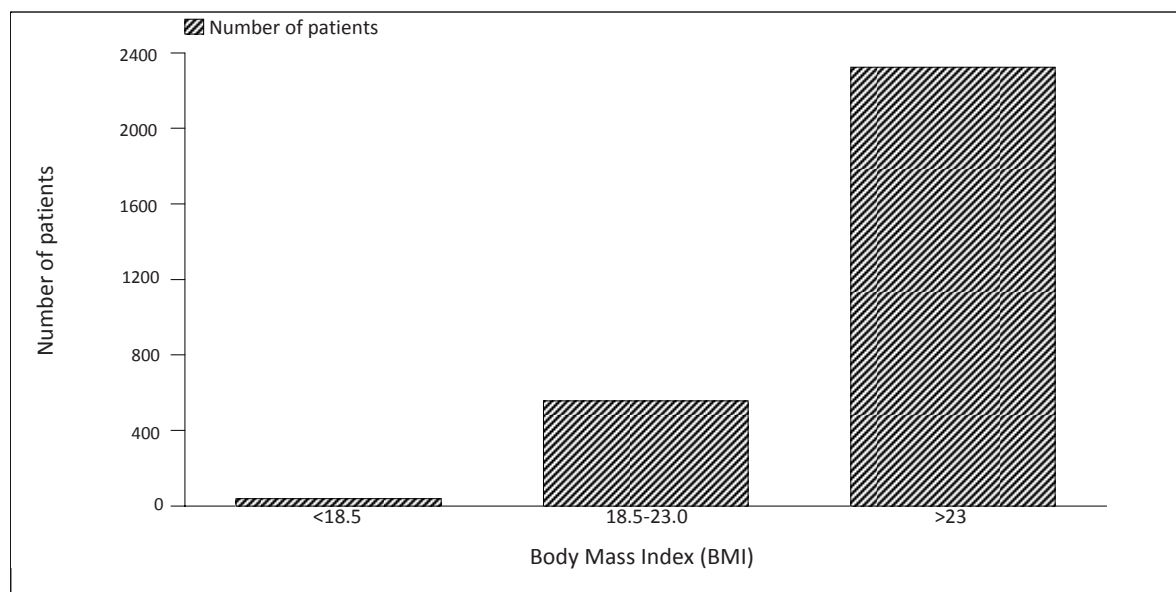
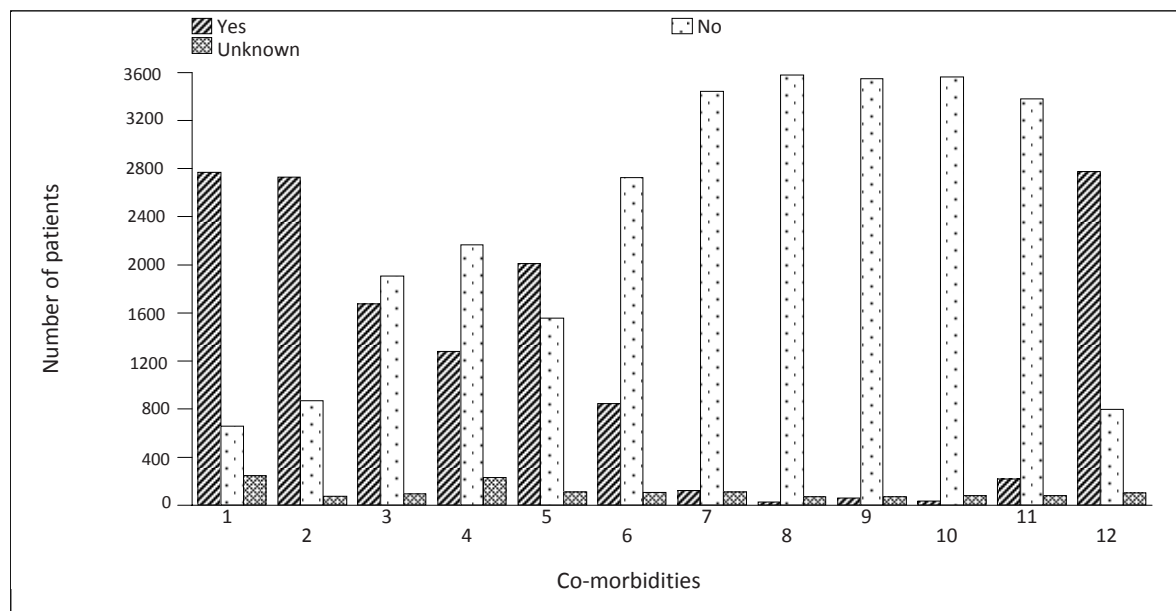


Figure 2.1.7 Co-morbidities of patients who underwent PCI, NCVD-PCI Registry, 2007



1. Dyslipidaemia, 2. Hypertension, 3. Diabetes 4. History of Myocardial infarction, 5. Documented CAD, 6. New onset angina (less than 2 weeks) 7. Congestive Heart Failure (more than 2 weeks prior), 8. Chronic Lung Disease, 9. Cerebrovascular Disease, 10. Peripheral vascular disease, 11. Chronic renal failure, 12. Coronary Artery Disease (is defined as "Yes" on any of the following co-morbidities: 1) History of myocardial infarction, 2) Documented CAD >50% stenosis, 3) Chronic angina (onset more than 2 weeks ago), 4) New onset angina (less than 2 weeks)

Figure 2.1.8 Patients who had previous revascularization procedure, NCVD-PCI Registry, 2007

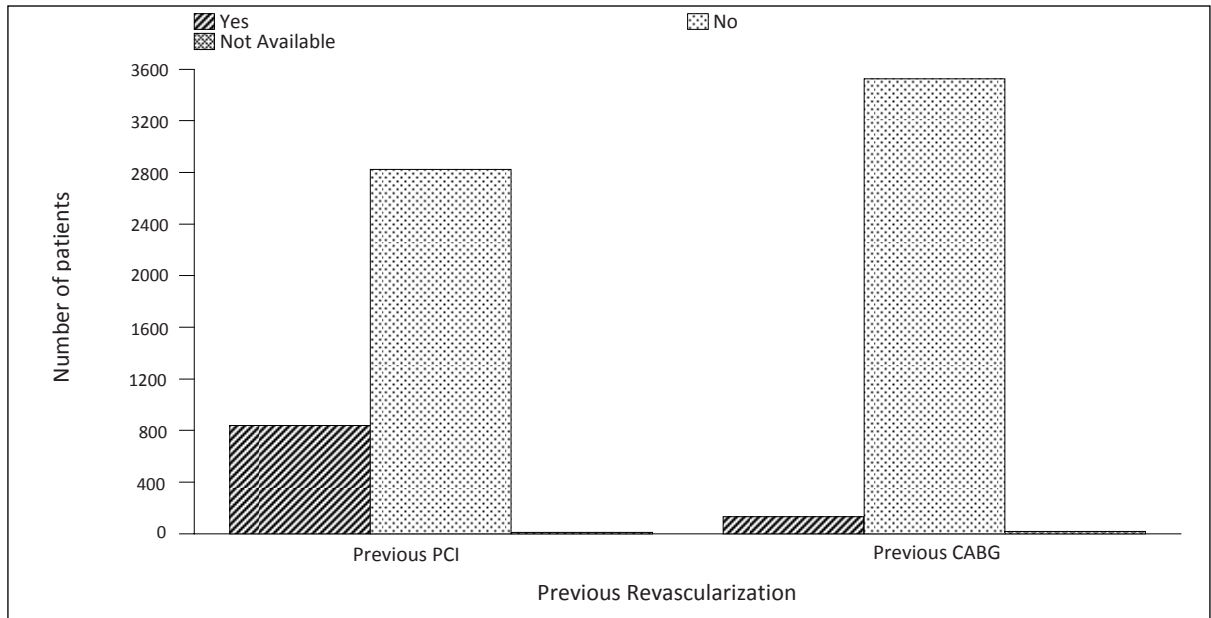
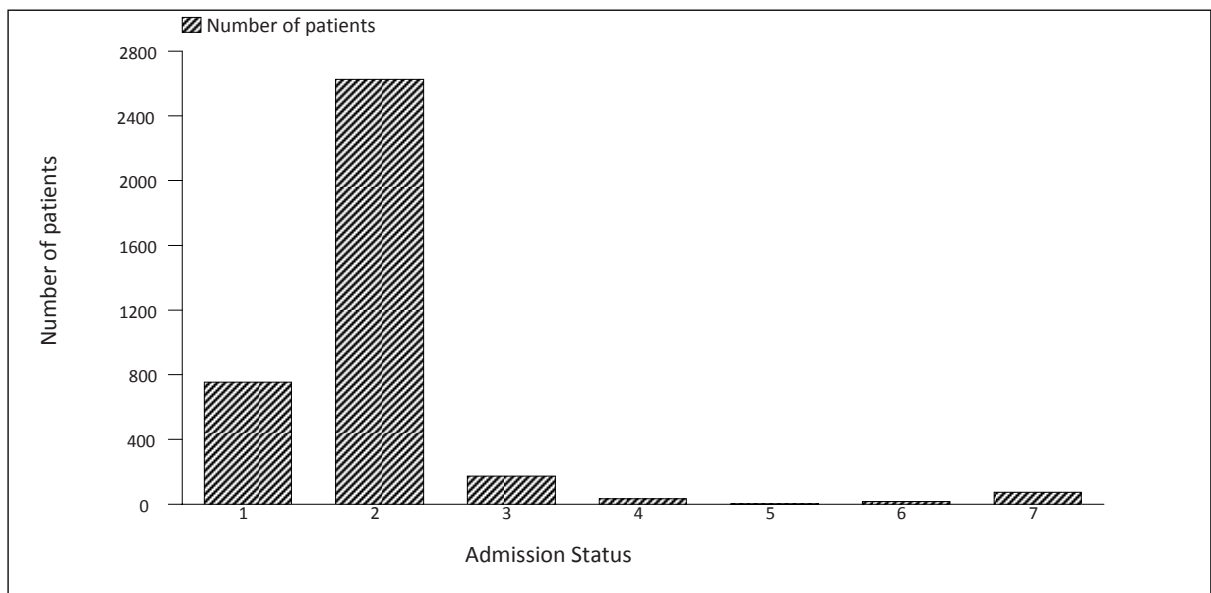


Figure 2.1.9 Admission status of patients who underwent PCI, NCVD-PCI Registry, 2007

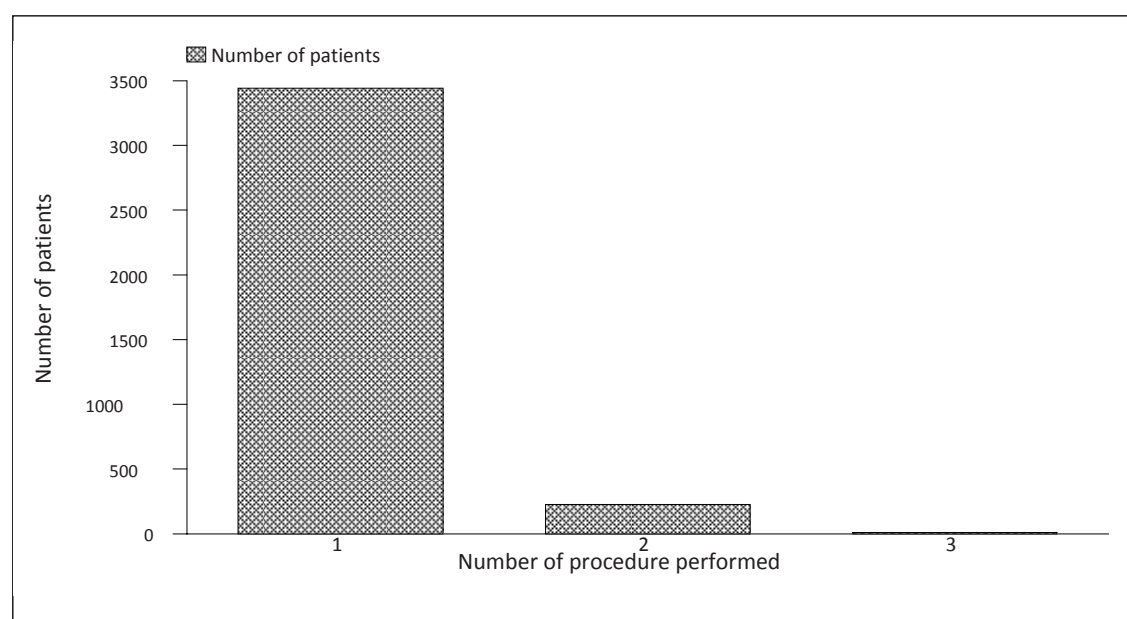


1. Referral, 2. Elective 3. Emergency department, 4. Transfer from other facility, 5. Out of hospital cardiac arrest, 6. Others, 7. Not Available

Table 2.2 Distribution of patients by number of procedures, NCVD-PCI Registry, 2007

No. of Procedures	No. of patients	Total no. of procedures
1	3442	3442
2	227	454
3	8	24
Grand Total	3677	3920

Figure 2.2 Distribution of patients by number of procedures, NCVD-PCI Registry, 2007

**Table 2.3.1 Distribution of patients who underwent PCI, by SDP, NCVD-PCI Registry, 2007**

No.	Source Data Providers	No.	%
1	University Malaya Medical Centre	363	9.9
2	National Heart Institute	2161	58.8
3	Penang Hospital	454	12.3
4	Sarawak General Hospital	341	9.3
5	Sultanah Aminah Hospital	324	8.8
6	KPJ Selangor Specialist Hospital	13	0.4
7	Serdang Hospital	5	0.1
8	Universiti Kebangsaan Malaysia Hospital	16	0.4
Total		3677	100

* Each SDP started to contribute data at different time period

Figure 2.3.1 Distribution of patients who underwent PCI, NCVD-PCI Registry, 2007

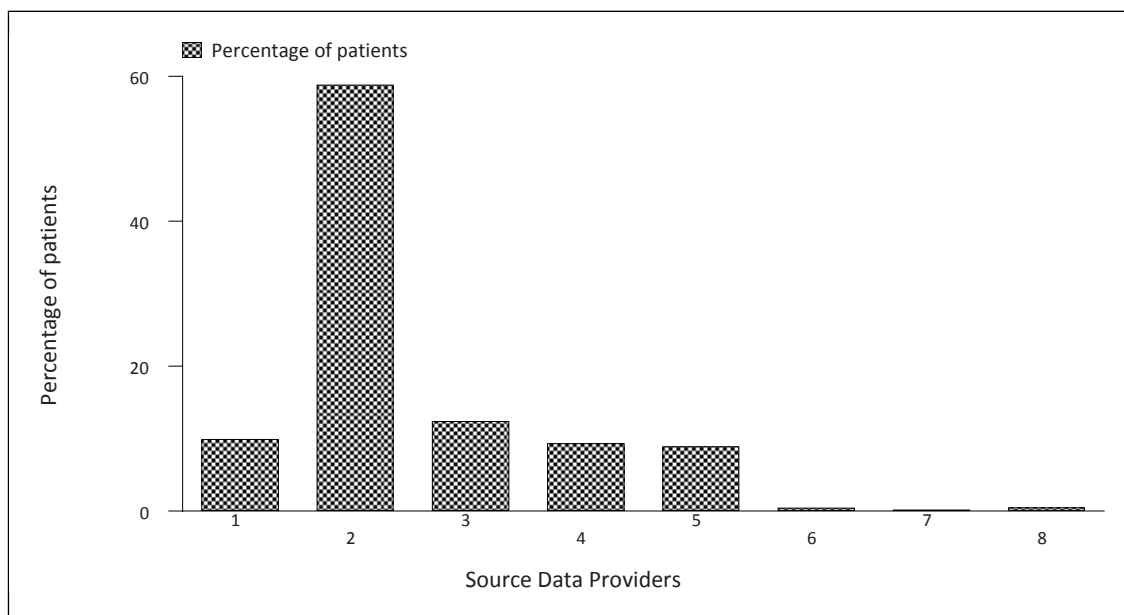


Table 2.3.2 Distribution of PCIs performed by Source Data Providers (SDPs), NCVD-PCI Registry, 2007

No.	Source Data Providers	No.	%
1	University Malaya Medical Centre	377	9.6
2	National Heart Insitute	2309	58.9
3	Penang Hospital	490	12.5
4	Sarawak General Hospital	380	9.7
5	Sultanah Aminah Hospital	327	8.3
6	KPJ Selangor Specialist Hospital	15	0.4
7	Serdang Hospital	6	0.2
8	Universiti Kebangsaan Malaysia Hospital	16	0.4
Total		3920	100

Figure 2.3.2 Distribution of PCIs performed by Source Data Providers (SDPs), NCVD-PCI Registry, 2007

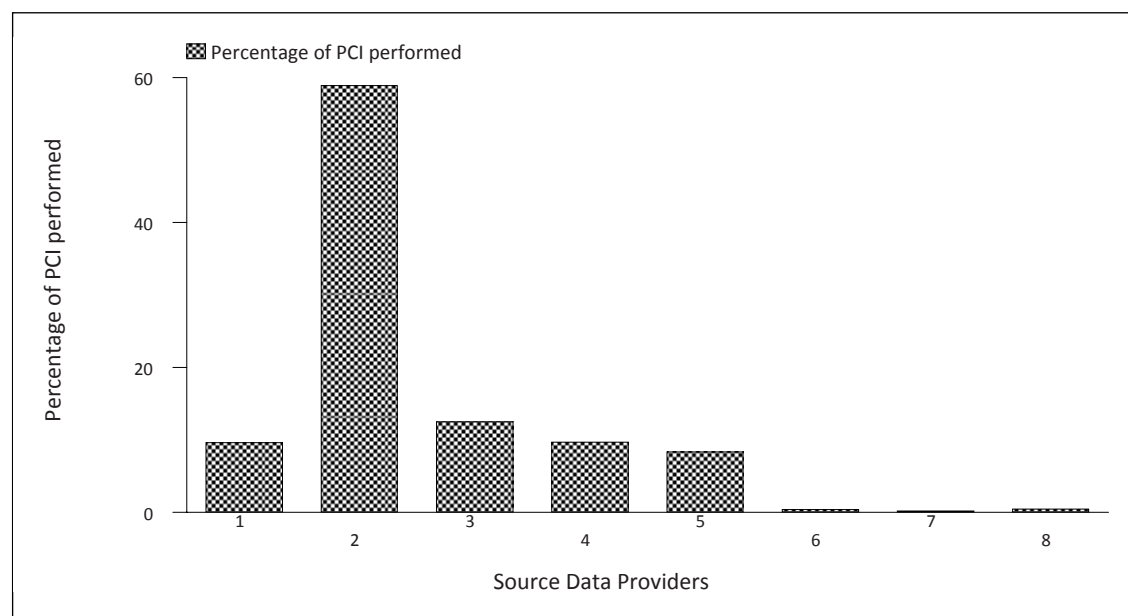


Table 2.4.1 SDP-ethnicity distribution of patients who underwent PCI, NCVD-PCI Registry, 2007 (row percent)

No.	Source Data Provider	Ethnic group											
		Malay		Chinese		Indian		*Others		Not Available		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	University Malaya Medical Centre	148	40.8	78	21.5	124	34.2	13	3.6	0	0	363	100
2	Institut Jantung Negara	1164	53.9	377	17.4	564	26.1	56	2.6	0	0	2161	100
3	Penang Hospital	188	41.4	154	33.9	105	23.1	5	1.1	2	0.4	454	100
4	Sarawak General Hospital	73	21.4	188	55.1	3	0.9	74	21.7	3	0.9	341	100
5	Sultanah Aminah Hospital	125	38.6	118	36.4	73	22.5	7	2.2	1	0.3	324	100
6	KPJ Selangor Specialist Hospital	7	53.8	3	23.1	3	23.1	0	0	0	0	13	100
7	Serdang Hospital	3	60	1	20	1	20	0	0	0	0	5	100
8	Universiti Kebangsaan Malaysia Hospital	10	62.5	5	31.3	1	6.3	0	0	0	0	16	100

*Others includes Orang asli, Kadazan, Melanau, Murut, Bajau, Bidayuh, Iban, other Malaysian and Foreigner

Figure 2.4.1 SDP-ethnicity distribution of patients who underwent PCI, NCVD-PCI Registry, 2007

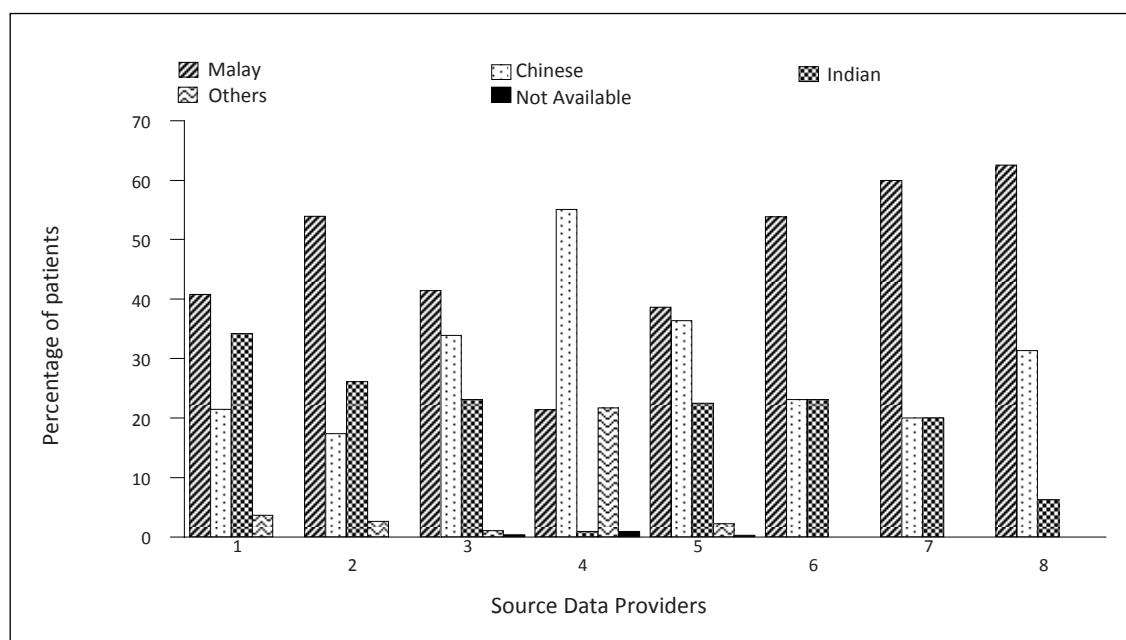


Table 2.4.2 SDP-gender distribution of patients who underwent PCI, NCVD-PCI Registry, 2007 (row percent)

No.	Source Data Provider	Gender					
		Male		Female		Total	
		No.	%	No.	%	No.	%
1	University Malaya Medical Centre	265	73	98	27	363	100
2	Institut Jantung Negara	1746	80.8	415	19.2	2161	100
3	Pulau Pinang Hospital	353	77.8	101	22.2	454	100
4	Sarawak General Hospital	309	90.6	32	9.4	341	100
5	Sultanah Aminah Hospital, Johor Bahru	282	87	42	13	324	100
6	KPJ Selangor Specialist Hospital	12	92.3	1	7.7	13	100
7	Serdang Hospital	4	80	1	20	5	100
8	Universiti Kebangsaan Malaysia Hospital	15	93.8	1	6.3	16	100

Figure 2.4.2 SDP-gender distribution of patients who underwent PCI, NCVD-PCI Registry, 2007

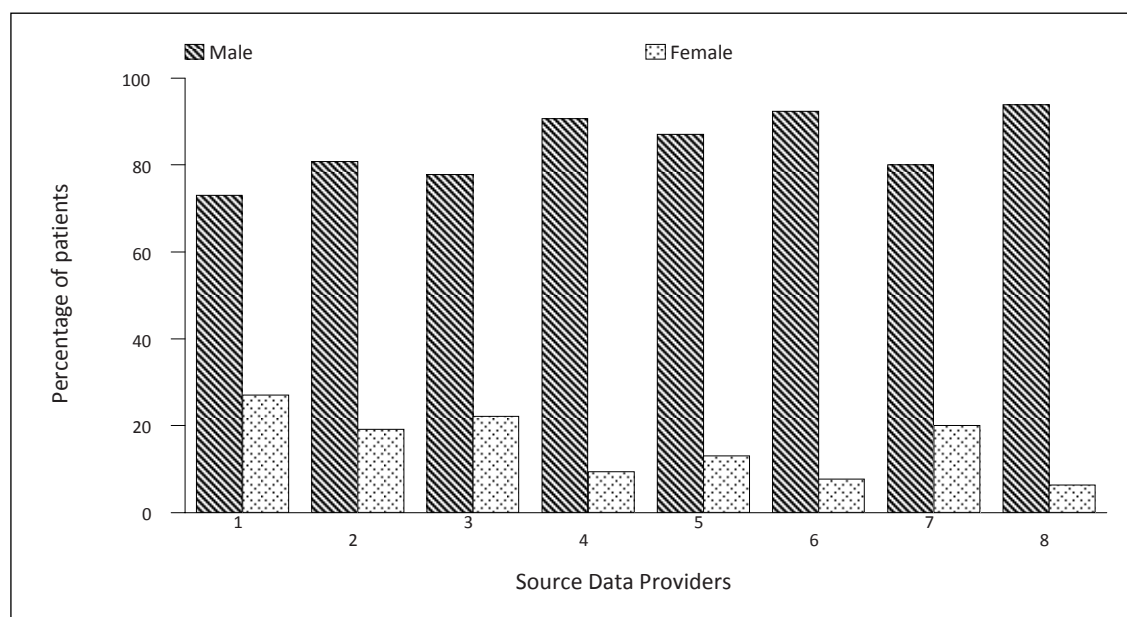


Table 2.5 Age-gender distribution of patients who underwent PCI, NCVD-PCI Registry, 2007

Age Group	Gender			
	Male		Female	
	No.	%	No.	%
20-<30	13	0.4	2	0.3
30-<40	139	4.7	5	0.7
40-<50	646	21.6	79	11.4
50-<60	1149	38.5	206	29.8
60-<70	770	25.8	261	37.8
70-<80	248	8.3	131	19
>=80	21	0.7	7	1
Total	2986	100	691	100

Figure 2.5 Age-gender distribution of patients who underwent PCI, NCVD-PCI Registry, 2007

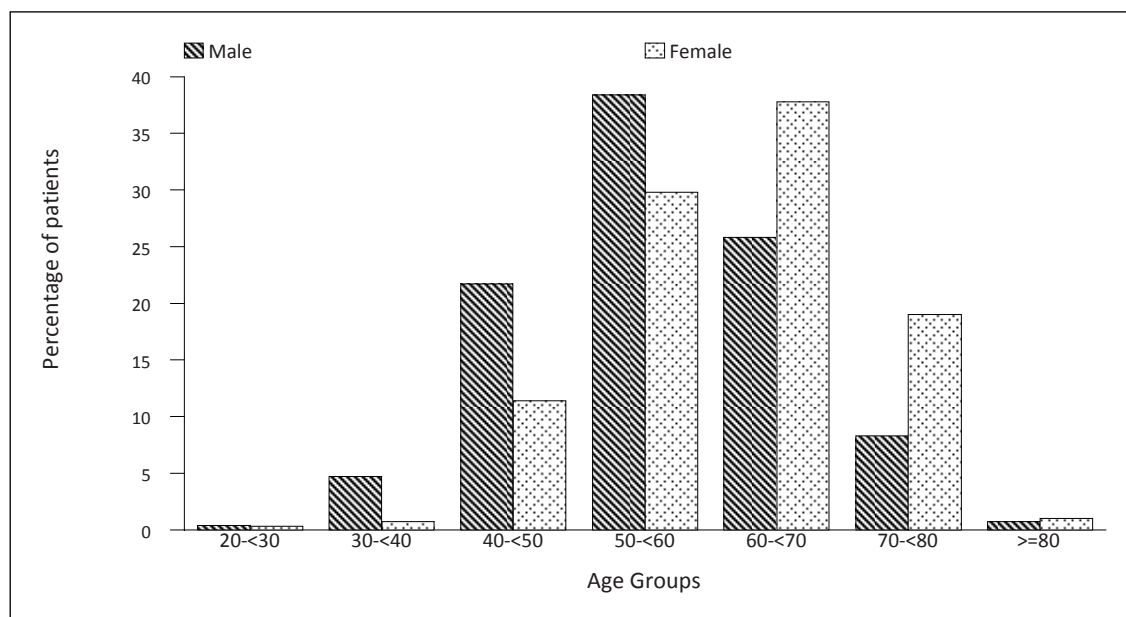


Table 2.5.1 Age-gender distribution of patients who underwent PCI, by ethnic group, NCVD-PCI Registry, 2007

Gender	Age Group	Ethnic group									
		Malay		Chinese		Indian		Others*		Not Available	
		No.	%	No.	%	No.	%	No.	%	No.	%
Male	20-30	5	0.2	5	0.2	2	0.1	1	0	0	0
	30-40	78	2.6	18	0.6	36	1.2	7	0.2	0	0
	40-50	339	11.4	115	3.9	166	5.6	26	0.9	1	0
	50-60	590	19.8	260	8.7	247	8.3	50	1.7	1	0
	60-70	321	10.8	254	8.5	164	5.5	30	1	1	0
	70-80	99	3.3	82	2.7	58	1.9	9	0.3	0	0
	>=80	9	0.3	6	0.2	4	0.1	2	0.1	0	0
	Total	1441	48.3	740	24.8	677	22.7	125	4.2	3	0.1
Female	20-30	2	0.3	0	0	0	0	0	0	0	0
	30-40	2	0.3	0	0	3	0.4	0	0	0	0
	40-50	36	5.2	8	1.2	30	4.3	4	0.6	1	0.1
	50-60	97	14	44	6.4	56	8.1	9	1.3	0	0
	60-70	102	14.8	74	10.7	73	10.6	11	1.6	1	0.1
	70-80	36	5.2	54	7.8	35	5.1	5	0.7	1	0.1
	>=80	2	0.3	4	0.6	0	0	1	0.1	0	0
	Total	277	40.1	184	26.6	197	28.5	30	4.3	3	0.4

* 'Others' includes Orang asli, Kadazan, Melanau, Murut, Bajau, Bidayuh, Iban, other Malaysian and Foreigner

Figure 2.5.1a Age-gender distribution of male patients who underwent PCI, by ethnic group, NCVD-PCI Registry, 2007

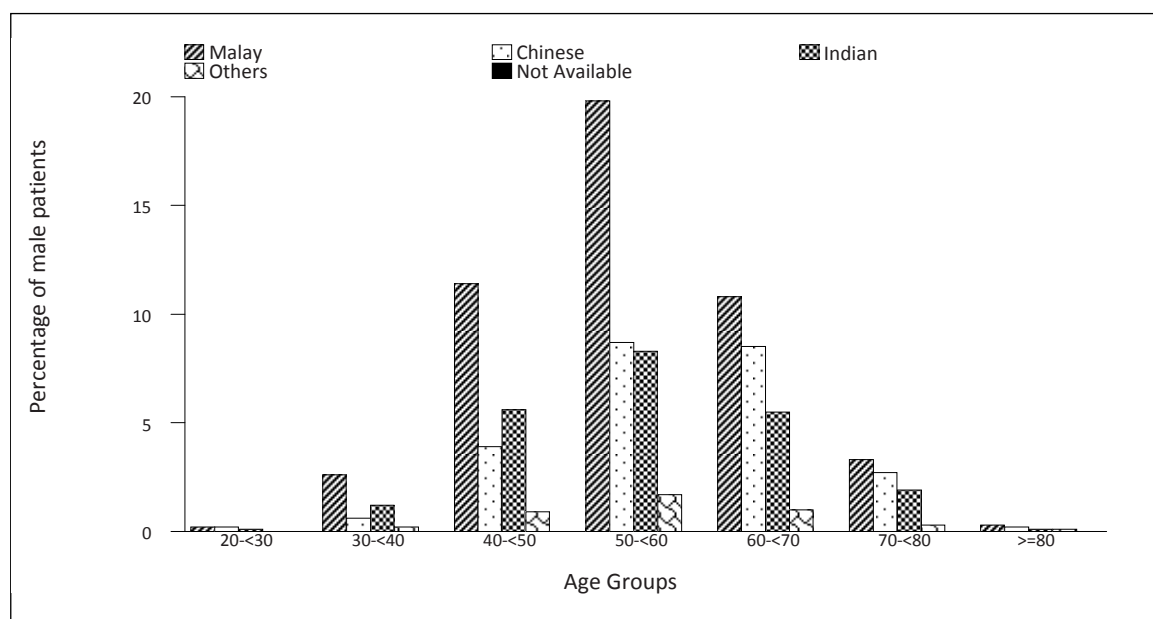


Figure 2.5.1b Age-gender distribution of female patients who underwent PCI, by ethnic group, NCVD-PCI Registry, 2007

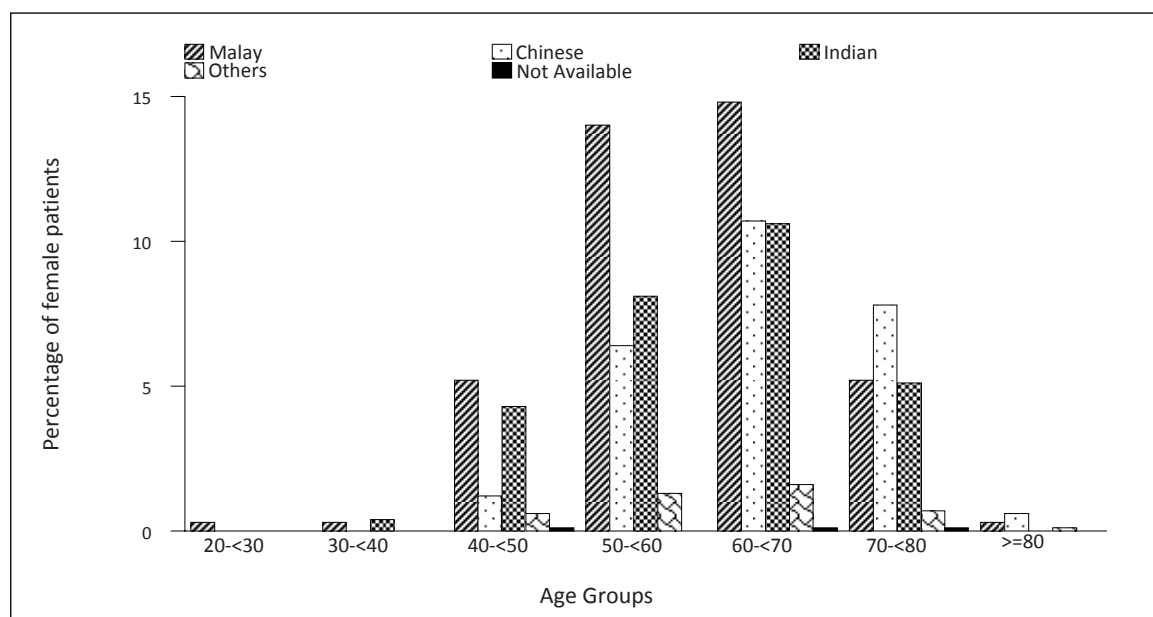


Table 2.5.2 Age-gender distribution of patients who underwent PCI, by pre-morbid diabetes, NCVD-PCI Registry, 2007

Gender	Age Group	Pre-morbid diabetes					
		Diabetic		Non-Diabetic		Not Known	
		No.	%	No.	%	No.	%
Male	20-<30	2	0.1	9	0.3	2	0.1
	30-<40	42	1.4	97	3.2	0	0
	40-<50	232	7.8	402	13.5	13	0.4
	50-<60	512	17.1	607	20.3	29	1
	60-<70	351	11.8	395	13.2	24	0.8
	70-<80	99	3.3	141	4.7	8	0.3
	>=80	5	0.2	16	0.5	0	0
	Total	1243	41.6	1667	55.8	76	2.5
Female	20-<30	1	0.1	1	0.1	0	0
	30-<40	2	0.3	3	0.4	0	0
	40-<50	55	8	22	3.2	2	0.3
	50-<60	140	20.3	62	9	4	0.6
	60-<70	163	23.6	92	13.3	6	0.9
	70-<80	70	10.1	55	8	6	0.9
	>=80	2	0.3	4	0.6	1	0.1
	Total	433	62.7	239	34.6	19	2.7

Figure 2.5.2a Age-gender distribution of male patients who underwent PCI, by pre-morbid diabetes, NCVD-PCI Registry, 2007

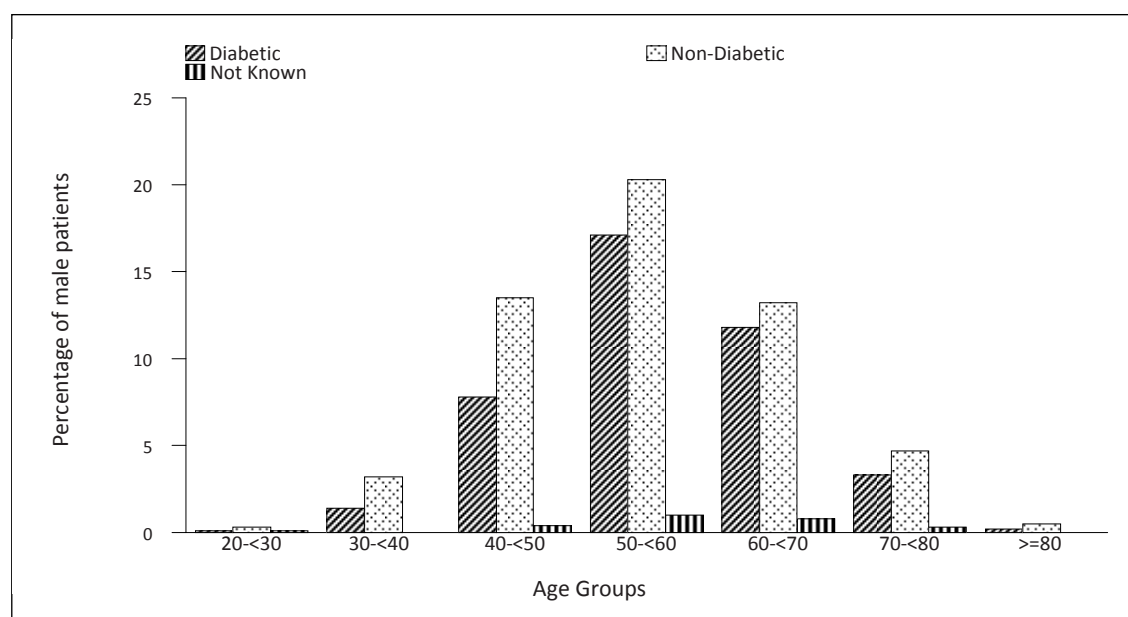


Figure 2.5.2b Age-gender distribution of female patients who underwent PCI, by pre-morbid diabetes, NCV-D-PCI Registry, 2007

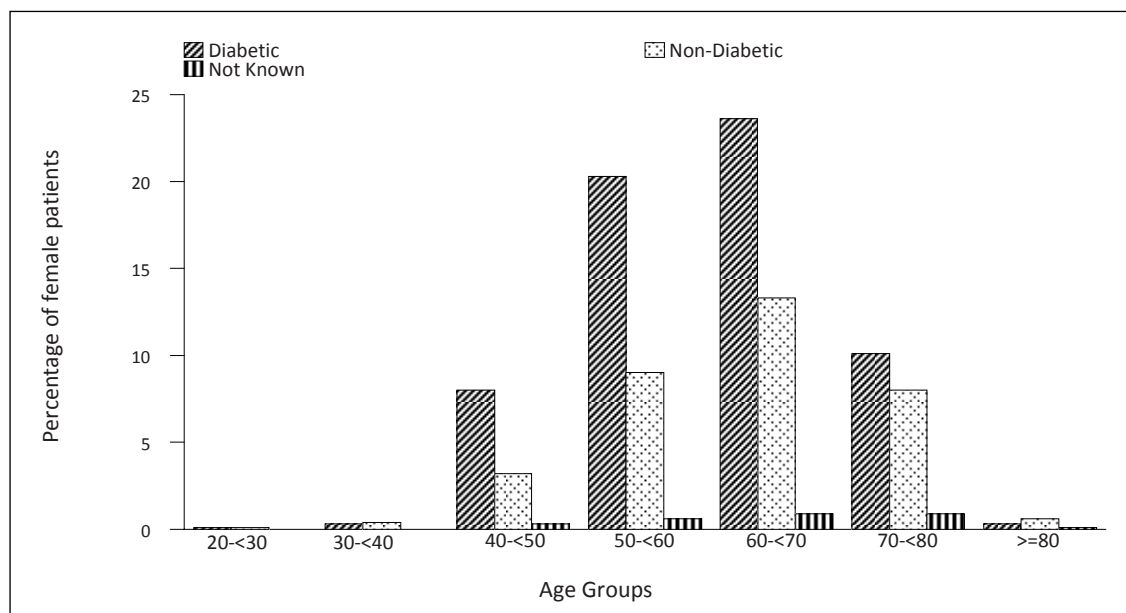


Table 2.5.3 Age-gender distribution of patients who underwent PCI, by pre-morbid hypertension, NCV-D-PCI Registry, 2007

Gender	Age Group	Pre-morbid hypertension					
		Hypertensive		Non-Hypertensive		Not Known	
		No.	%	No.	%	No.	%
Male	20-30	3	0.1	7	0.2	3	0.1
	30-40	74	2.5	63	2.1	2	0.1
	40-50	402	13.5	232	7.8	13	0.4
	50-60	830	27.8	297	9.9	21	0.7
	60-70	598	20	156	5.2	16	0.5
	70-80	209	7	34	1.1	5	0.2
	>=80	18	0.6	3	0.1	0	0
	Total	2134	71.5	792	26.5	60	2
Female	20-30	1	0.1	1	0.1	0	0
	30-40	4	0.6	1	0.1	0	0
	40-50	58	8.4	18	2.6	3	0.4
	50-60	171	24.7	31	4.5	4	0.6
	60-70	239	34.6	18	2.6	4	0.6
	70-80	118	17.1	9	1.3	4	0.6
	>=80	5	0.7	1	0.1	1	0.1
	Total	596	86.3	79	11.4	16	2.3

Figure 2.5.3a Age-gender distribution of male patients who underwent PCI, by pre-morbid hypertension, NCVD-PCI Registry, 2007

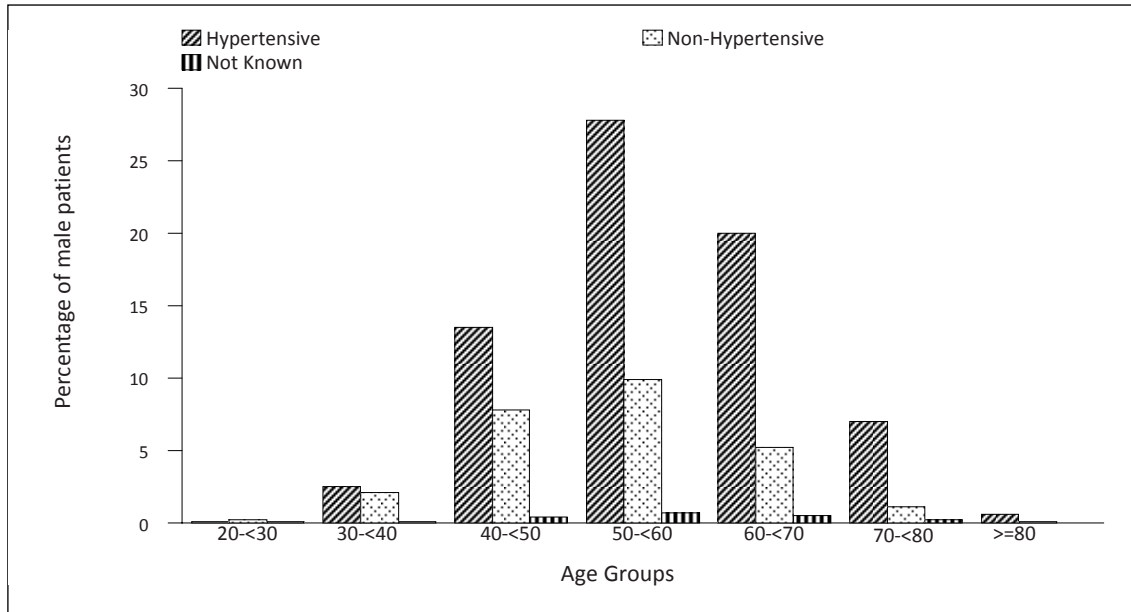


Figure 2.5.3b Age-gender distribution of female patients who underwent PCI, by pre-morbid hypertension, NCVD-PCI Registry, 2007

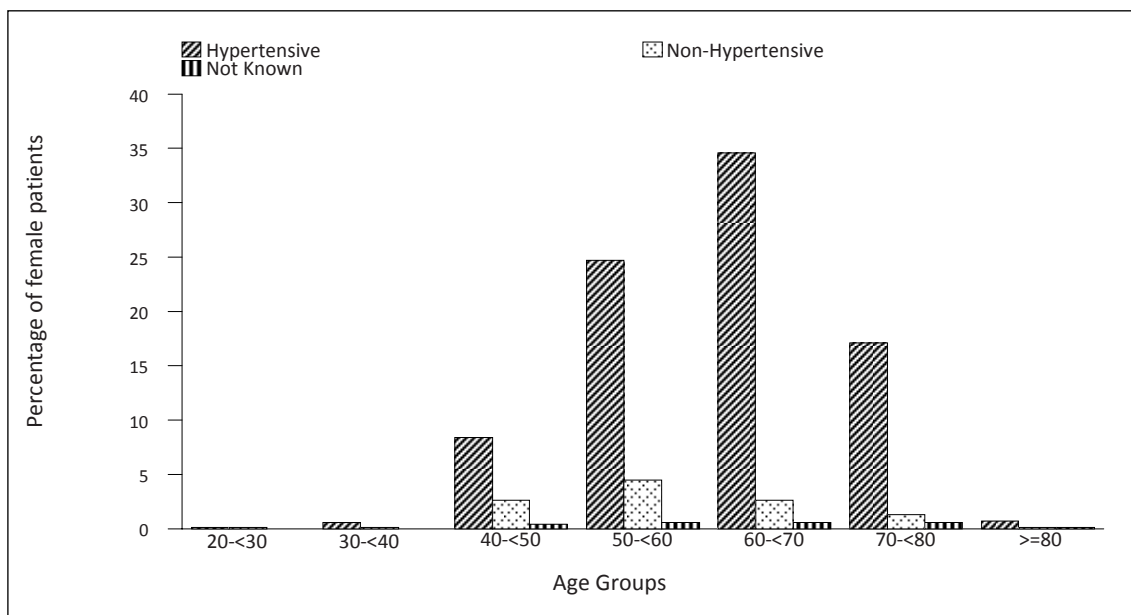


Table 2.5.4 Age-gender distribution of patients who underwent PCI, by pre-morbid dyslipidaemia, NCVD-PCI Registry, 2007

Gender	Age Group	Pre-morbid dyslipidaemia					
		Yes		No		Not Known	
		No.	%	No.	%	No.	%
Male	20-<30	8	0.3	2	0.1	3	0.1
	30-<40	107	3.6	31	1	1	0
	40-<50	470	15.7	130	4.4	47	1.6
	50-<60	863	28.9	212	7.1	73	2.4
	60-<70	583	19.5	130	4.4	57	1.9
	70-<80	192	6.4	40	1.3	16	0.5
	>=80	15	0.5	6	0.2	0	0
	Total	2238	74.9	551	18.5	197	6.6
Female	20-<30	2	0.3	0	0	0	0
	30-<40	4	0.6	0	0	1	0.1
	40-<50	62	9	10	1.4	7	1
	50-<60	162	23.4	32	4.6	12	1.7
	60-<70	202	29.2	42	6.1	17	2.5
	70-<80	96	13.9	23	3.3	12	1.7
	>=80	4	0.6	1	0.1	2	0.3
	Total	532	77	108	15.6	51	7.4

Figure 2.5.4a Age-gender distribution of male patients who underwent PCI, by pre-morbid dyslipidaemia, NCVD-PCI Registry, 2007

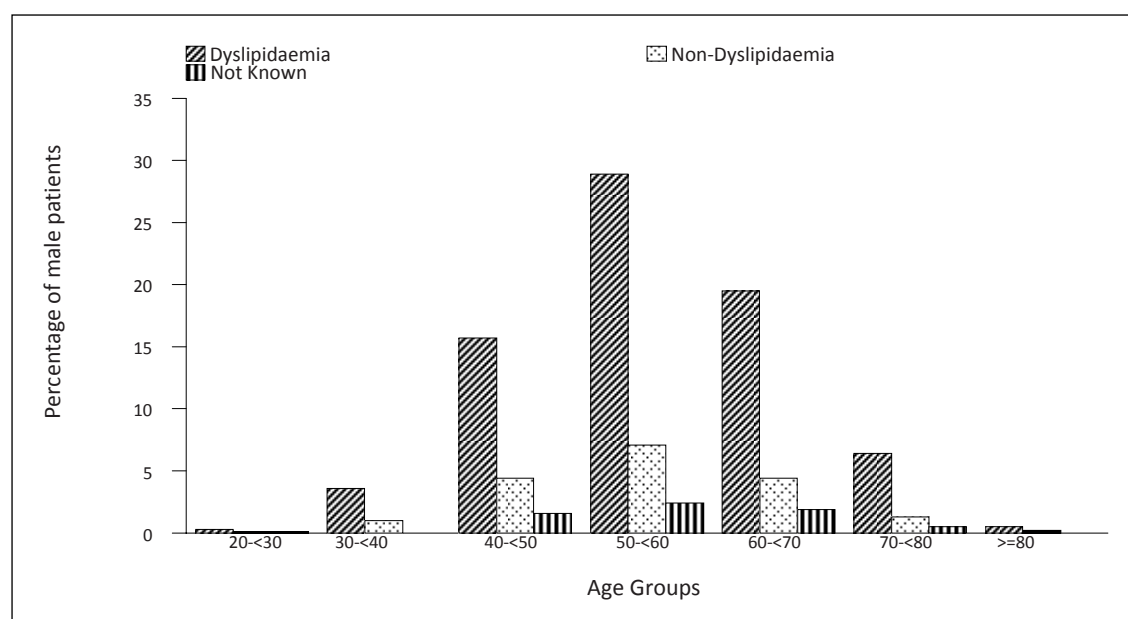


Figure 2.5.4b Age-gender distribution of female patients who underwent PCI, by pre-morbid dyslipidaemia, NCVD-PCI Registry, 2007

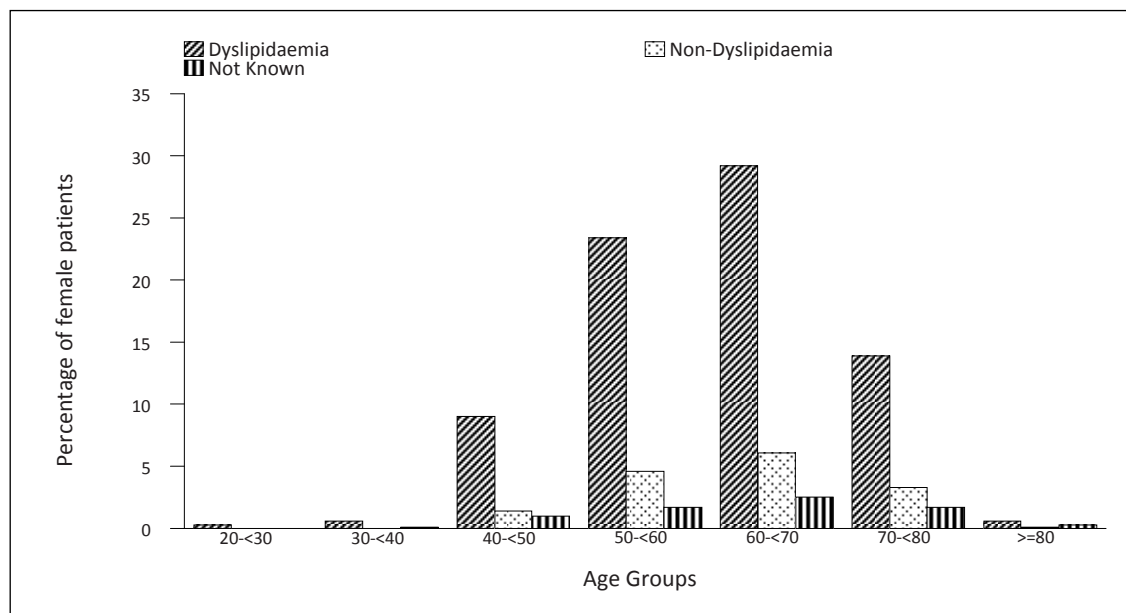


Table 2.5.5 Age-gender distribution of patients who underwent PCI, by family history of premature cardiovascular disease, NCVD-PCI Registry, 2007

Gender	Age Group	Family history of premature cardiovascular disease					
		Yes		No		Not Known	
		No.	%	No.	%	No.	%
Male	20-30	4	0.1	7	0.2	2	0.1
	30-40	39	1.3	93	3.1	7	0.2
	40-50	146	4.9	433	14.5	68	2.3
	50-60	177	5.9	821	27.5	150	5
	60-70	87	2.9	583	19.5	100	3.3
	70-80	30	1	163	5.5	55	1.8
	>=80	0	0	18	0.6	3	0.1
	Total	483	16.2	2118	70.9	385	12.9
Female	20-30	0	0	2	0.3	0	0
	30-40	4	0.6	1	0.1	0	0
	40-50	19	2.7	46	6.7	14	2
	50-60	38	5.5	147	21.3	21	3
	60-70	42	6.1	182	26.3	37	5.4
	70-80	12	1.7	93	13.5	26	3.8
	>=80	0	0	5	0.7	2	0.3
	Total	115	16.6	476	68.9	100	14.5

Figure 2.5.5a Age-gender distribution of male patients who underwent PCI, by family history of premature cardiovascular disease, NCVD-PCI Registry, 2007

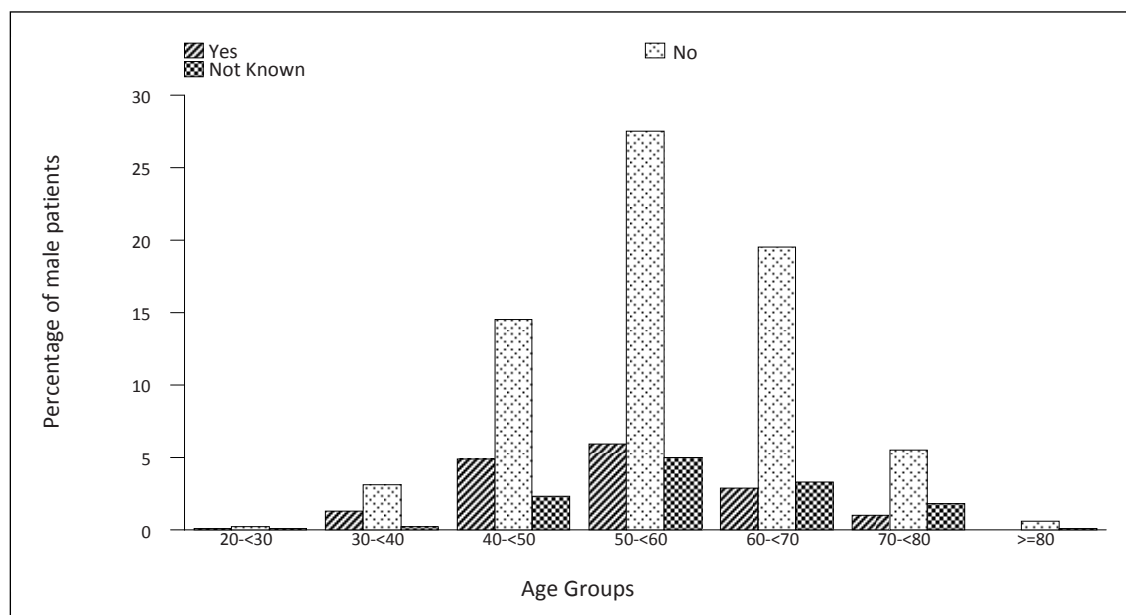


Figure 2.5.5b Age-gender distribution of female patients who underwent PCI, by family history of premature cardiovascular disease, NCVD-PCI Registry, 2007

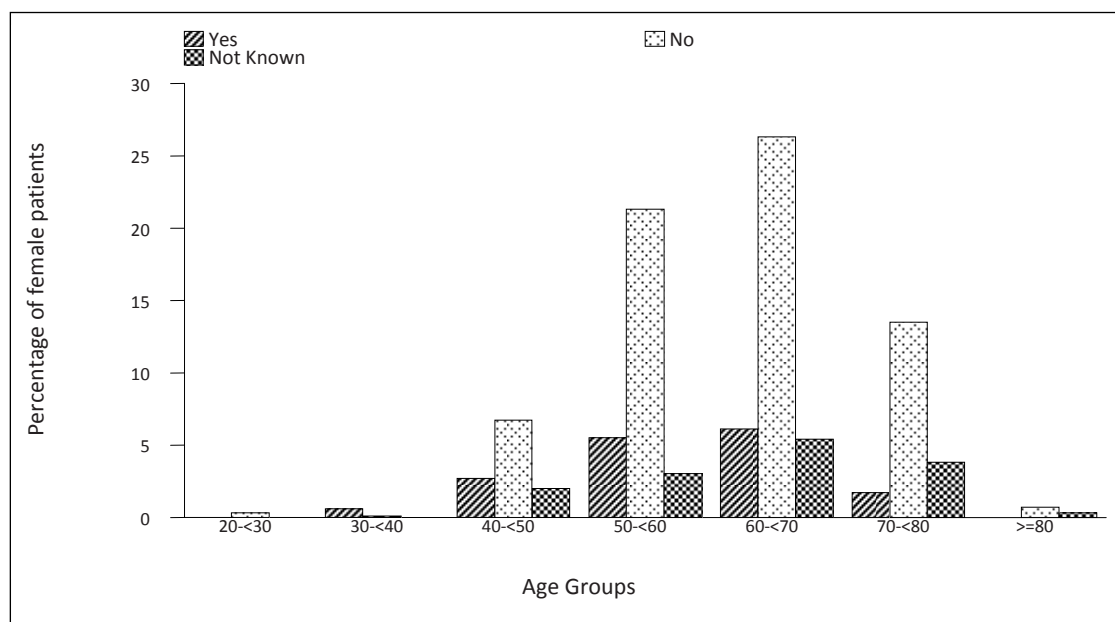


Table 2.5.6 Age-gender distribution of patients who underwent PCI, by smoking status, NCVd-PCI Registry, 2007

Gender	Age Group	Smoking status							
		Never		Former (quit more than 30 days)		Current (any tobacco use within last 30 days)		Unknown	
		No.	%	No.	%	No.	%	No.	%
Male	20-<30	1	0	5	0.2	6	0.2	1	0
	30-<40	19	0.6	43	1.4	55	1.8	22	0.7
	40-<50	139	4.7	210	7	199	6.7	99	3.3
	50-<60	314	10.5	415	13.9	194	6.5	225	7.5
	60-<70	225	7.5	269	9	91	3	185	6.2
	70-<80	78	2.6	82	2.7	22	0.7	66	2.2
	>=80	6	0.2	10	0.3	2	0.1	3	0.1
	Total	782	26.2	1034	34.6	569	19.1	601	20.1
Female	20-<30	2	0.3	0	0	0	0	0	0
	30-<40	4	0.6	0	0	1	0.1	0	0
	40-<50	60	8.7	3	0.4	3	0.4	13	1.9
	50-<60	171	24.7	3	0.4	4	0.6	28	4.1
	60-<70	220	31.8	7	1	8	1.2	26	3.8
	70-<80	109	15.8	4	0.6	2	0.3	16	2.3
	>=80	6	0.9	0	0	0	0	1	0.1
	Total	572	82.8	17	2.5	18	2.6	84	12.2

Figure 2.5.6a Age-gender distribution of male patients who underwent PCI, by smoking status, NCVd-PCI Registry, 2007

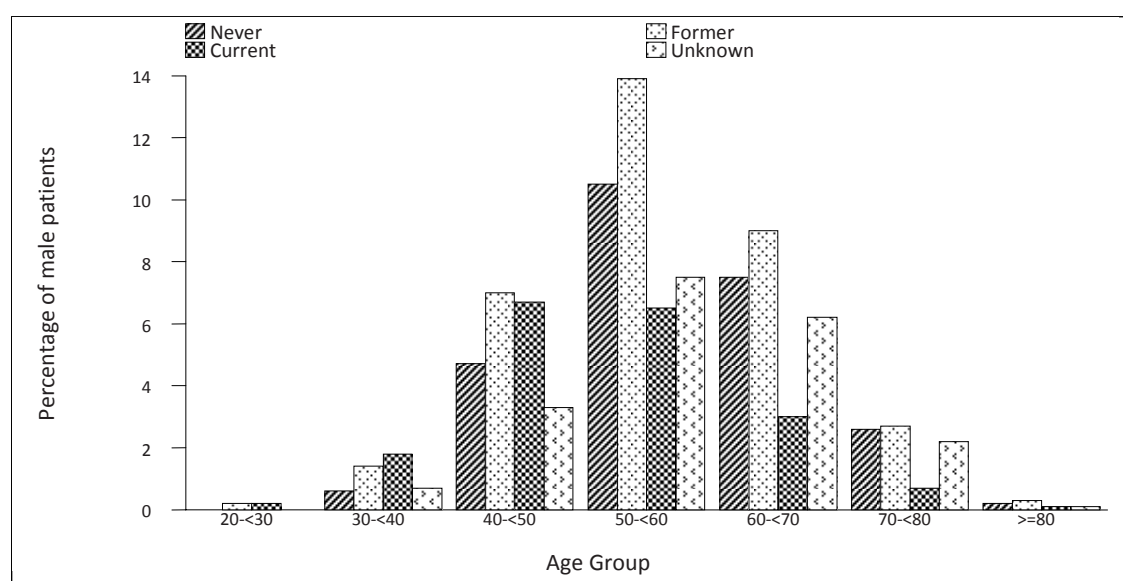


Figure 2.5.6b Age-gender distribution of female patients who underwent PCI, by smoking status, NCVD-PCI Registry, 2007

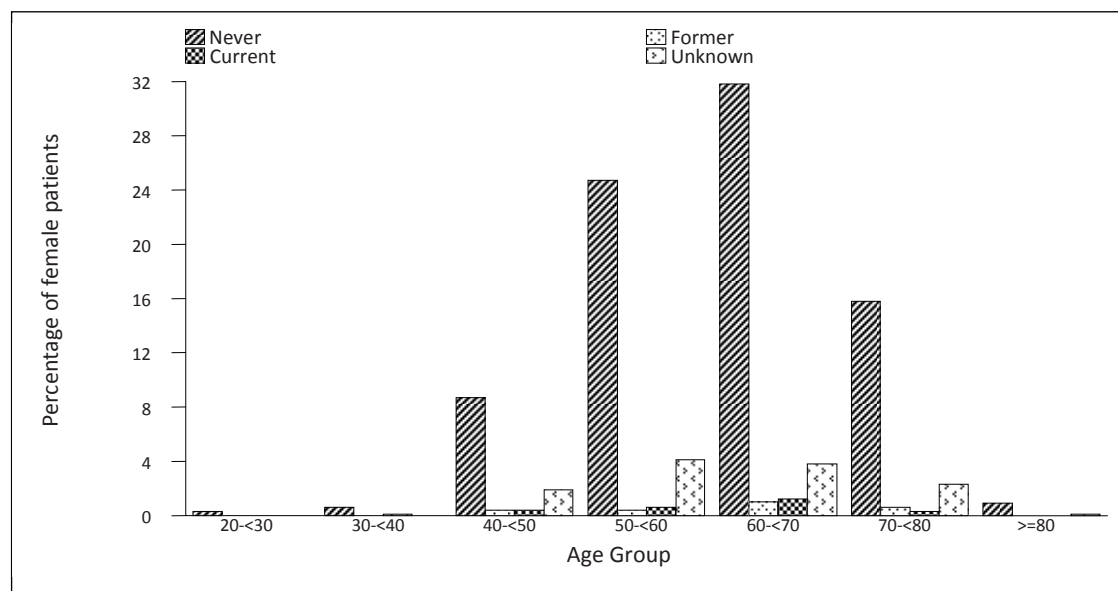


Table 2.5.7 Age-gender distribution of patients who underwent PCI, by new onset of angina, NCVD-PCI Registry, 2007

Gender	Age Group	New onset of angina					
		Yes		No		Unknown	
		No.	%	No.	%	No.	%
Male	20-30	5	0.2	8	0.3	0	0
	30-40	29	1	109	3.7	1	0
	40-50	148	5	488	16.3	11	0.4
	50-60	257	8.6	865	29	26	0.9
	60-70	175	5.9	567	19	28	0.9
	70-80	70	2.3	172	5.8	6	0.2
	>=80	4	0.1	15	0.5	2	0.1
	Total	688	23	2224	74.5	74	2.5
Female	20-30	0	0	2	0.3	0	0
	30-40	1	0.1	3	0.4	1	0.1
	40-50	15	2.2	60	8.7	4	0.6
	50-60	45	6.5	154	22.3	7	1
	60-70	61	8.8	187	27.1	13	1.9
	70-80	33	4.8	92	13.3	6	0.9
	>=80	3	0.4	4	0.6	0	0
	Total	158	22.9	502	72.6	31	4.5

Figure 2.5.7a Age-gender distribution of male patients who underwent PCI, by new onset of angina, NCV-D-PCI Registry, 2007

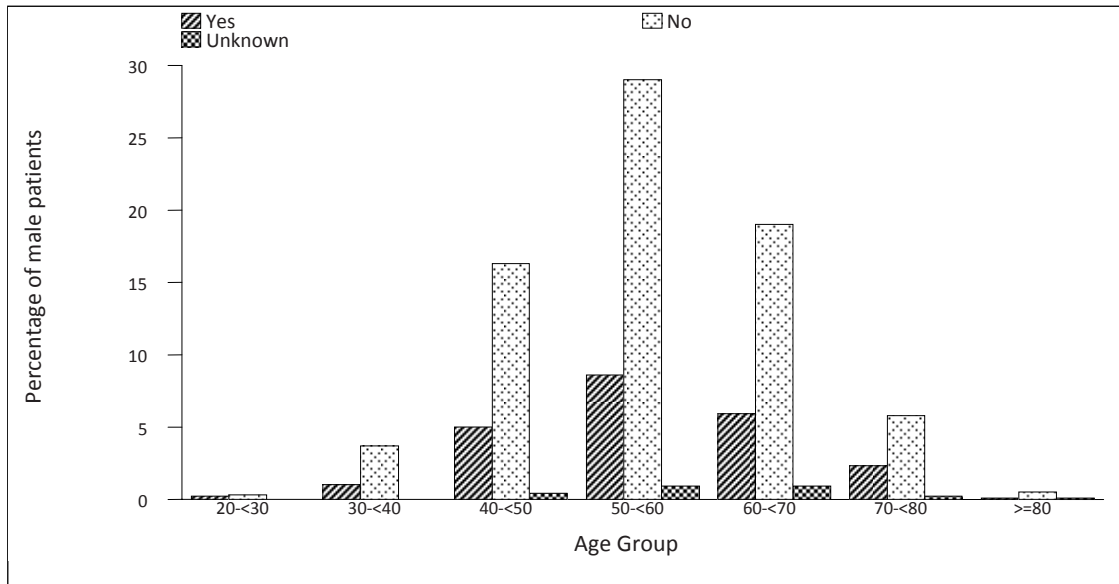


Figure 2.5.7b Age-gender distribution of female patients who underwent PCI, by new onset of angina, NCV-D-PCI Registry, 2007

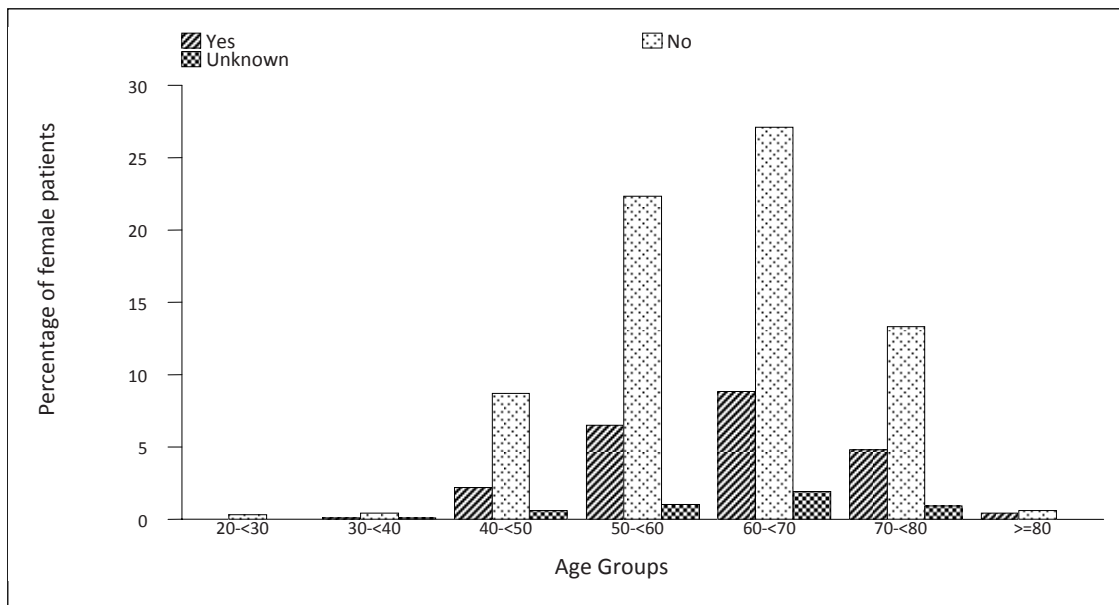


Table 2.6 Presence of cumulative risk factors, NCVD-PCI Registry, 2007

Presence of cumulative risk factors *	Total	
	No.	%
None	57	1.6
1 risk factor	239	6.5
2 risk factors	709	19.3
3 risk factors	1224	33.3
>3 risk factors	1448	39.4

* Risk factors are defined as presence of dyslipidaemia, hypertension, diabetes, family history of premature cardiovascular disease, smoking and obesity

Figure 2.6 Distribution of presence of cumulative risk factors, NCVD-PCI Registry, 2007

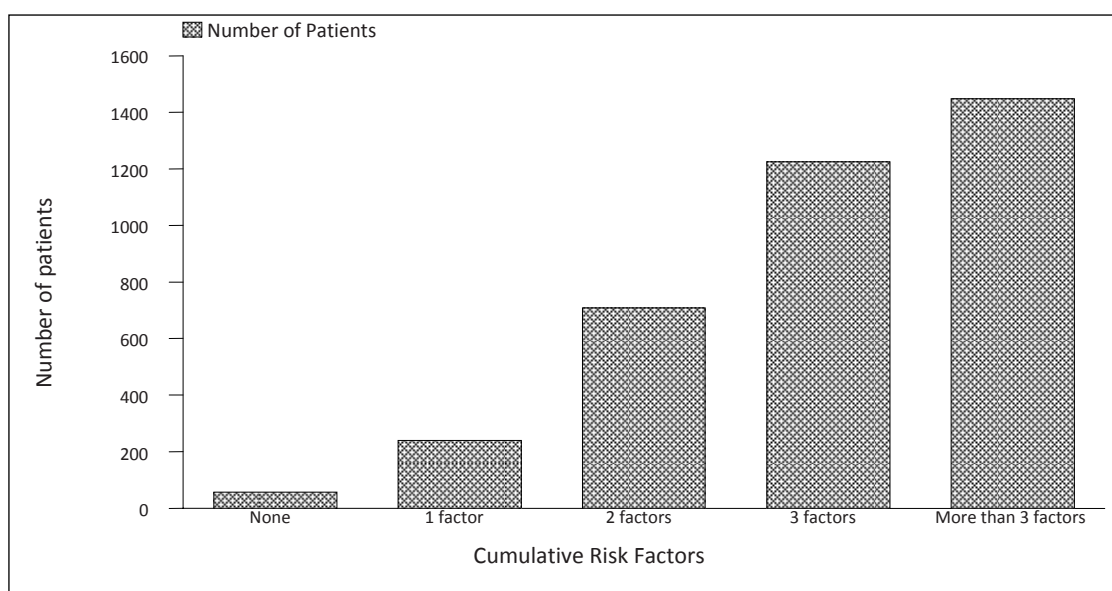


Table 2.6.1 Presence of cumulative risk factors by gender, NCVD-PCI Registry, 2007

Gender	Presence of cumulative risk factors *	Total	
		No.	%
Male	None	41	1.4
	1 risk factor	194	6.5
	2 risk factors	573	19.2
	3 risk factors	979	32.8
	>3 risk factors	1199	40.2
Female	None	16	2.3
	1 risk factor	45	6.5
	2 risk factors	136	19.7
	3 risk factors	245	35.5
	>3 risk factors	249	36

* Risk factors are defined as presence of dyslipidaemia, hypertension, diabetes, family history of premature cardiovascular disease, smoking and obesity

Figure 2.6.1 Distribution of presence of cumulative risk factors, by gender, NCVD-PCI Registry, 2007

