

PATIENT CHARACTERISTICS

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Summary

1. Patient characteristics remained similar between the periods of 2007 – 2012 and 2013 – 2014.
2. Nearly all patients had at least one known cardiovascular risk factor (97.2%); however, compared to 2007 – 2012, the trend was lower: dyslipidemia (71.9% vs. 59.4%), hypertension (73.0% vs. 66.8%), and diabetes (45.7% vs. 43.3%). Compared with the SCAAR registry (17.5%), the prevalence of diabetes mellitus was much higher.
3. To improve outcomes of PCI, patients' risk factors should be optimally treated post procedure.
4. Malaysian patients were younger with a mean age of 57.7 (SD 10.4) years, which is 10 years younger than patients in the SCAAR registry, 67.1 (SD 11.2) years.
5. Twenty-two percent (22.2%) of patients were below the age of 50 years. More Malay and Indian patients, compared to Chinese patients were under the age of 50 years.

Data from 14,136 patients obtained from 15 centres was analysed. The main source data providers were Institut Jantung Negara, Pusat Jantung Hospital Umum Sarawak, Hospital Queen Elizabeth II, Hospital Sultanah Bahiyah, Hospital Pulau Pinang, Pusat Perubatan Universiti Malaya and Hospital Sultanah Aminah. [Table 1.3.1]

The data on patient characteristics will be reported in two periods: between the years 2007 – 2012 and 2013 – 2014. This was because the main finding from 2007 – 2012 had been published, and the subsequent data from 2013 – 2014 would be compared to the former.

In total, of the 14,136 patients, 91.1 % had a single PCI procedure while the remaining had two or more. [Table 1.2]

The mean ages of patients were 57.4 (SD 10.3) years for 2007 – 2012, and 57.7 (SD 10.4) years for 2013 – 2014. The largest group of patients in 2007 – 2012 and 2013 – 2014 were aged between 50 (35.8%) and 60 years old (36.6%), respectively. Patients below the age of 50 years comprised 23.4% in 2007 – 2012 vs. 22.2% in 2013 – 2014. [Table 1.1]

Relatively more males than females underwent PCI; 82.0% in 2007 – 2012 and 83.6% in 2013 – 2014. [Table 1.1]

The distributions of patients from the major ethnic groups in 2007 – 2012 were similar for Malays (48.4% vs. 49.7%), Chinese (23.1% vs. 21.9%), and Indians (21.7% vs. 19.4%). The next major ethnic group was Iban. [Table 1.1]

Cardiovascular risk factors

In total, 98.1% of patients in 2007 – 2012 and 97.2 % in 2013 – 2014 had at least one cardiovascular risk factor. [Table 1.5.1]

In terms of active smokers, there was a 6% increase; 21.1% in 2007 – 2012 vs. 27.8% in 2013 – 2014. Seventeen percent of patients had a family history of premature cardiovascular disease in 2007 – 2012 and 10.6% in 2013 – 2014. The mean body index was similar in 2007 – 2012 and 2013 – 2014, with 26.6 kgm⁻² (SD 4.3) and 26.6 kgm⁻² (SD 4.4), respectively. [Table 1.1]

There was a decreased trend for dyslipidaemia (71.8% in 2007 – 2012 vs. 59.4% in 2013 – 2014), hypertension (73.0% in 2007 – 2012 vs. 66.8% in 2013 – 2014), and diabetes (45.7% in 2007 – 2012 vs. 43.3 % in 2013 – 2014). Forty-four percent had a previous history of myocardial infarction in 2007 – 2012 and 38.2% in 2013 – 2014. Fifty-five percent had a previous history of known coronary artery disease in 2007 – 2012 and 40.2% in 2013 – 2014. [Table 1.1]

There was an increased trend for PCI among patients with new onset angina (23.7% in 2007 – 2012 vs. 28.6% in 2013 – 2014) and chronic cardiac failure (CCF) (3.6% in 2007 – 2012 vs. 4.2% in 2012 – 2014). [Table 1.1]

There were 5.8% patients with chronic renal failure (CRF) in 2007 – 2012 and 4.8% in 2012 – 2014. There were 20.3% patients with a previous history of percutaneous coronary intervention (PCI) in 2007 – 2012 and 16.2% in 2012 – 2014. [Table 1.1]

Finally, there were 4.0% patients with a previous history of CABG in 2007 – 2012 and 3.2% in 2012 – 2014. [Table 1.1]

Age, gender and ethnicity, in 2007 – 2012

Males under the age of 50 years: Malays (27.9%), followed by Indians (25.6%), and Chinese (19.7%). Females under the age of 50 years: Malays (14.0%), followed by Indians (13.5%), and Chinese (5.5%). [Table 1.4.2]

Age, gender and ethnicity, in 2013 – 2014

Males under the age of 50 years: Malays (25.6%), followed by Indians (23.7%), and Chinese (19.0%). Females under the age of 50 years: Malays (12.4%), followed by Indians (12.7%), and Chinese (5.0%). Chinese male and female patients tend to have PCI at an older age. [Table 1.4.2]

Comparative analysis with published data from the region on cardiovascular risk factors

These findings were compared with the Swedish Coronary Angiography and Angioplasty Registry (SCAAR) which recruited 25,143 patients from 2009 to 2010. It is apparent that the mean age of patients proceeding with angioplasty was much higher at 67.1 years. Around 51.4% had hypertension, and the prevalence of dyslipidaemia was almost similar to our own population at 39.8%. Interestingly, the prevalence of diabetes mellitus is comparatively much lower at 17.5%, and about a fifth of patients were smokers.²

Based on the Mayo Clinic Percutaneous Coronary Intervention Registry which recruited 7251 patients from 2002 to 2010, the prevalence of diabetes mellitus was 29.0%, hypertension was 21.0% and dyslipidaemia was 85.0%. The mean age of patients was 67.2 years old.³

Based on the comparisons with these other registries, it can be deduced that our patients requiring angioplasty were younger by ten years and also had a markedly higher prevalence of diabetes mellitus. In light of this, it is important that the management of cardiovascular risk factors be carried out more effectively with special emphasis on diabetes mellitus.

References

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3. Lee MS, Flammer AJ, Li J, et al. Comparison of time trends of cardiovascular disease risk factors and Framingham risk score between patients with and without acute coronary syndrome undergoing percutaneous intervention over the last 17 years: From the Mayo Clinic Percutaneous Coronary Intervention Registry. *Clin Cardiol.* 2015;38: 747–56.

Table 1.1 Characteristics of patients who underwent PCI, NCVD-PCI Registry, 2007 – 2014

Year	2007 – 2012		2013		2014		2013 – 2014	
Total no. of patients	24459		6353		7783		14136	
	No.	%	No.	%	No.	%	No.	%
Demographics								
Age, Years								
N	24459		6353		7783		14136	
Mean (SD)	57.4 (10.3)		57.6 (10.4)		57.8 (10.5)		57.7 (10.4)	
Median (min, max)	57.3 (21.1, 97.7)		57.6 (23.6, 91.5)		57.9 (20.1, 96.0)		57.8 (20.1, 96.0)	
Age group, No. (%)								
20 – < 30	89	0.4	29	0.4	33	0.4	62	0.4
30 – < 40	955	4.0	290	4.6	379	4.8	669	4.8
40 – < 50	4658	19.0	1111	17.4	1289	16.6	2400	17.0
50 – < 60	8774	35.8	2355	37.0	2816	36.2	5171	36.6
60 – < 70	6995	28.6	1767	27.8	2269	29.2	4036	28.6
70 – < 80	2757	11.2	731	11.6	892	11.4	1623	11.4
≥ 80	231	1.0	70	1.2	105	1.4	175	1.2
Gender, No. (%)								
Male	20073	82.0	5290	83.2	6528	83.8	11818	83.6
Female	4386	18.0	1063	16.8	1255	16.2	2318	16.4
Ethnic group, No. (%)								
Malay	11841	48.4	3122	49.3	3896	50.0	7018	49.7
Chinese	5650	23.1	1413	22.3	1663	21.4	3076	21.9
Indian	5298	21.7	1187	18.6	1547	19.8	2734	19.4
Orang asli	2	0.0	5	0.0	4	0.0	9	0.0
Kadazan Dusun	191	0.8	116	1.8	103	1.4	219	1.6
Melanau	16	0.0	5	0.0	9	0.2	14	0.0
Murut	8	0.0	6	0.0	6	0.0	12	0.0
Bajau	102	0.4	61	1.0	74	1.0	135	1.0
Bidayuh	108	0.4	49	0.8	15	0.2	64	0.4
Iban	641	2.7	171	2.6	187	2.4	358	2.6
Punjabi	214	0.8	34	0.6	45	0.6	79	0.6
Other Malaysian	228	1.0	121	2.0	168	2.2	289	2.0
Foreigner	135	0.7	58	1.0	63	0.8	121	0.8
Not available	22	0.0	5	0.0	3	0.0	8	0.0
Missing	3	0.0	0	0	0	0	0	0

Year	2007 – 2012		2013		2014		2013 – 2014	
Total no. of patients	24459		6353		7783		14136	
	No.	%	No.	%	No.	%	No.	%
Other coronary risk factors								
Smoking, No. (%)								
Never	8883	36.3	2035	32.0	2789	35.8	4824	34.2
Former (quit > 30 days)	6844	28.0	1335	21.0	1744	22.4	3079	21.8
Current (any tobacco use within last 30 days)	5177	21.1	1842	29.0	2100	27.0	3942	27.8
Not available	3519	14.4	1141	18.0	1150	14.8	2291	16.2
Missing	36	0.2	0	0	0	0	0	0
Family history of premature cardiovascular disease, No. (%)								
Yes	4151	17.0	710	11.2	784	10.0	1494	10.6
No	17416	71.2	4349	68.4	5427	69.8	9776	69.2
Not known	2858	11.6	1294	20.4	1572	20.2	2866	20.2
Missing	34	0.2	0	0	0	0	0	0
Body mass index (BMI), kgm ⁻²								
N	19606		4639		6019		10658	
Mean (SD)	26.6 (4.3)		26.6 (4.4)		26.6 (4.4)		26.6 (4.4)	
Median (min, max)	26.1 (14.0, 49.9)		26.2 (14.0, 49.7)		26.1 (14.0, 49.8)		26.1 (14.0, 49.8)	
Missing, No. (%)	4853	19.8	1714	27.0	1764	22.6	3478	24.6
BMI, kg/m ² , No. (%)								
< 18.5	289	1.2	69	1.0	88	1.2	157	1.2
18.5 – 23	3470	14.2	822	13.0	1087	13.9	1909	13.5
> 23 – < 25	3726	15.2	902	14.2	1177	15.1	2079	14.7
25 – < 30	8327	34.0	1946	30.6	2514	32.4	4460	31.5
30 – < 35	3000	12.3	695	11.0	894	11.4	1589	11.1
35 – < 40	629	2.6	157	2.4	201	2.6	358	2.6
≥ 40	165	0.7	48	0.8	58	0.8	106	0.8
Missing	4853	19.8	1714	27.0	1764	22.6	3478	24.6
Co-morbidities								
Dyslipidaemia, No. (%)								
Yes	17582	71.8	3811	60.0	4579	58.8	8390	59.4
No	5678	23.2	1950	30.6	2472	31.8	4422	31.2
Not known	1162	4.8	592	9.4	732	9.4	1324	9.4
Missing	37	0.2	0	0	0	0	0	0

Year	2007 – 2012		2013		2014		2013 – 2014	
Total no. of patients	24459		6353		7783		14136	
	No.	%	No.	%	No.	%	No.	%
Hypertension, No. (%)								
Yes	17878	73.0	4275	67.3	5162	66.4	9437	66.8
No	6046	24.8	1745	27.5	2155	27.6	3900	27.6
Not known	517	2.2	333	5.2	466	6.0	799	5.6
Missing	18	0.0	0	0	0	0	0	0
Diabetes, No. (%)								
Yes	11165	45.7	2734	43.0	3394	43.7	6128	43.3
No	12645	51.6	3222	50.8	3837	49.3	7059	49.9
Not known	628	2.7	397	6.2	552	7.0	949	6.8
Missing	21	0.0	0	0	0	0	0	0
Type of diabetes treatment, No. (%)								
OHA	8395	34.4	1785	28.0	1997	25.6	3782	26.8
Insulin	1219	5.0	390	6.2	583	7.4	973	6.8
OHA + insulin	579	2.4	279	4.4	354	4.6	633	4.4
Non-pharmacology therapy	312	1.2	168	2.6	214	2.8	382	2.8
Myocardial infarction history, No. (%)								
Yes	10749	44.0	2557	40.2	2845	36.6	5402	38.2
No	12814	52.3	3330	52.4	4271	54.8	7601	53.8
Not known	867	3.5	466	7.4	667	8.6	1133	8.0
Missing	29	0.2	0	0	0	0	0	0
Documented coronary artery disease, No. (%)								
Yes	13464	55.0	2702	42.6	2976	38.2	5678	40.2
No	10487	42.8	3309	52.0	4324	55.6	7633	54.0
Not known	481	2.0	342	5.4	483	6.2	825	5.8
Missing	27	0.2	0	0	0	0	0	0
New onset angina (< 2 weeks), No. (%)								
Yes	5780	23.7	1881	29.6	2169	27.8	4050	28.6
No	18168	74.3	4144	65.2	5130	66.0	9274	65.6
Not known	487	2.0	328	5.2	484	6.2	812	5.8
Missing	24	0.0	0	0	0	0	0	0
Congestive heart failure (2 weeks prior), No. (%)								
Yes	898	3.6	228	3.6	359	4.6	587	4.2
No	23049	94.2	5890	92.8	7002	90.0	12892	91.2
Not known	481	2.0	235	3.6	422	5.4	657	4.6
Missing	31	0.2	0	0	0	0	0	0

Year	2007 – 2012		2013		2014		2013 – 2014	
Total no. of patients	24459		6353		7783		14136	
	No.	%	No.	%	No.	%	No.	%
Cerebrovascular disease, No. (%)								
Yes	352	1.5	152	2.4	247	3.2	399	2.8
No	23675	96.8	5949	93.6	7117	91.4	13066	92.4
Not known	410	1.7	252	4.0	419	5.4	671	4.8
Missing	22	0.0	0	0	0	0	0	0
Peripheral vascular disease, No. (%)								
Yes	205	0.8	59	1.0	60	0.8	119	0.8
No	23822	97.4	6036	95.0	7294	93.7	13330	94.3
Not known	407	1.6	258	4.0	429	5.5	687	4.9
Missing	25	0.2	0	0	0	0	0	0
Chronic renal failure (> 200 micromol), No. (%)								
Yes	1441	5.8	320	5.1	357	4.6	677	4.8
No	22589	92.4	5786	91.1	7025	90.2	12811	90.6
Not known	401	1.6	247	3.8	401	5.2	648	4.6
Missing	28	0.2	0	0	0	0	0	0
*Coronary artery disease, No. (%)								
Yes	19590	80.1	4765	75.1	5445	70.0	10210	72.2
No	4365	17.8	1264	19.9	1813	23.2	3077	21.8
Not known	504	2.1	324	5.0	525	6.8	849	6.0
Baseline investigation								
Baseline creatinine, mmol/L								
N	22221		5370		6647		12017	
Mean (SD)	116.9 (121.7)		116.0 (117.2)		116.1 (117.5)		116.0 (117.4)	
Median (min, max)	93.0 (44.0, 6500.0)		92.0 (44.0, 1510.0)		91.0 (44.0, 1632.0)		92.0 (44.0, 1632.0)	
Not available, No. (%)	903	3.7	398	6.2	638	8.2	1036	7.4
Missing, No. (%)	1335	5.4	585	9.2	498	6.4	1083	7.6
Baseline creatinine, mmol/L, No. (%)								
< 100	13407	54.8	3275	51.6	4133	53.2	7408	52.4
100 – 199	7669	31.4	1811	28.6	2168	27.8	3979	28.2
≥ 200	1145	4.7	284	4.4	346	4.4	630	4.4
Not available	903	3.7	398	6.2	638	8.2	1036	7.4
Missing	1335	5.4	585	9.2	498	6.4	1083	7.6

Year	2007 – 2012		2013		2014		2013 – 2014	
Total no. of patients	24,459		6,353		7,783		14,136	
	No.	%	No.	%	No.	%	No.	%
**Glomerular filtration rate (GFR), MDRD								
N	22206		5370		6647		12017	
Mean (SD)	74.0 (25.2)		75.4 (25.9)		75.6 (25.9)		75.5 (25.9)	
Median (min, max)	75.0 (0.6, 212.5)		75.6 (2.9, 179.2)		76.7 (2.7, 200.5)		76.0 (2.7, 200.5)	
Missing, No. (%)	2253	9.2	983	15.5	1136	14.6	2119	15.0
***Total cholesterol, mmol/L								
N	9213		1596		1705		3301	
Mean (SD)	4.5 (1.2)		4.4 (1.3)		4.3 (1.3)		4.4 (1.3)	
Median (min, max)	4.3 (2.0, 24.2)		4.2 (2.0, 25.0)		4.1 (2.2, 23.0)		4.1 (2.0, 25.0)	
Not available, No. (%)	3221	24.0	696	25.8	893	30.0	1589	28.0
Missing, No. (%)	1030	7.6	410	15.2	378	12.8	788	13.8
***LDL levels, mmol/L								
N	9101		1555		1668		3223	
Mean (SD)	2.6 (1.1)		2.5 (1.1)		2.5 (1.1)		2.5 (1.1)	
Median (min, max)	2.4 (0.7, 20.0)		2.3 (0.8, 14.0)		2.2 (0.8, 16.0)		2.2 (0.8, 16.0)	
Not available, No. (%)	3323	24.6	725	26.8	937	31.4	1662	29.2
Missing, No. (%)	1040	7.8	422	15.6	371	12.4	793	14.0
Previous intervention								
Previous PCI, No. (%)								
Yes	4953	20.3	997	15.6	1284	16.4	2281	16.2
No	19488	79.7	5356	84.4	6499	83.6	11855	83.8
Missing	18	0.0	0	0	0	0	0	0
Previous CABG, No. (%)								
Yes	973	4.0	231	3.6	229	3.0	460	3.2
No	23462	96.0	6122	96.4	7554	97.0	13676	96.8
Missing	24	0.0	0	0	0	0	0	0

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

**Glomerular filtration rate calculated based on MDRD formula

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

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

Table 1.2 Distribution of patients by number of procedures, NCVD-PCI Registry, 2007 – 2014

Year		No. of patients							
		2007 – 2012		2013		2014		2013 – 2014	
No. of procedures	N	%	N	%	N	%	N	%	
1	24459	92.4	6353	91.7	7783	90.6	14136	91.1	
	1932	7.3	545	7.9	758	8.8	1303	8.4	
	85	0.3	27	0.4	40	0.5	67	0.4	
	7	0.0	3	0	5	0.1	8	0.1	
	Total	26483	100.0	6928	100.0	8586	100.0	15514	100.0

Table 1.3.1 Distribution of patients who underwent PCI, by SDP, NCVD-PCI Registry, 2007 – 2014*

No.	Source data provider	2007 – 2012 Total no. of patients = 24459		2013 Total no. of patients = 6353		2014 Total no. of patients = 7783		2013 – 2014 Total no. of patients = 14136	
		No.	%	No.	%	No.	%	No.	%
1	Pusat Perubatan Universiti Malaya, Kuala Lumpur	1184	4.8	55	0.8	810	10.4	865	6.2
2	Institut Jantung Negara, Kuala Lumpur	14183	58.1	2651	41.8	2834	36.4	5485	38.8
3	Hospital Pulau Pinang, Pulau Pinang	2099	8.7	432	6.8	480	6.2	912	6.4
4	Hospital Umum Sarawak, Sarawak	2723	11.3	687	10.8	665	8.6	1352	9.6
5	Hospital Sultanah Aminah, Johor	1777	7.3	434	6.8	445	5.8	879	6.2
6	Hospital Sultanah Bahiyah, Kedah	1042	4.2	393	6.2	531	6.8	924	6.6
7	Hospital Queen Elizabeth, Sabah	445	1.8						
8	Hospital Pakar KPJ Selangor, Selangor	70	0.2						
9	Hospital Serdang, Selangor	148	0.6	454	7.2	247	3.2	701	5.0
10	Pusat Perubatan Universiti Kebangsaan Malaysia, Kuala Lumpur	20	0.0						
11	Pusat Perubatan Mahkota, Melaka	12	0.0						
12	Hospital Sultanah Nur Zahirah, Terengganu	110	0.4	129	2.0	151	2.0	280	2.0
13	Hospital Tengku Ampuan Afzan, Pahang	28	0.2	197	3.2	261	3.4	458	3.2
14	Pusat Perubatan Subang Jaya, Selangor	91	0.4	83	1.4	127	1.6	210	1.4
15	Hospital Queen Elizabeth 2, Sabah	508	2.0	542	8.5	521	6.5	1063	7.5
16	Hospital Pantai Ipoh, Perak	19	0.0	82	1.2	9	0.2	91	0.6
17	Hospital Raja Permaisuri Bainun, Perak			176	2.7	419	5.3	595	4.1
18	Hospital Raja Perempuan Zainab II, Kelantan			2	0.0	15	0.2	17	0.2
19	UiTM Sg Buloh, Selangor			36	0.6	268	3.4	304	2.2
Total		24459	100.0	6353	100.0	7783	100.0	14136	100.0

*Each SDP started contributing data at different time periods

Table 1.3.2 Distribution of PCI procedures performed by Source Data Providers (SDPs), NCVD-PCI Registry, 2007 – 2014*

No.	Source data provider	2007 – 2012 Total no. of patients = 26483		2013 Total no. of patients = 6928		2014 Total no. of patients = 8586		2013 – 2014 Total no. of patients = 15514	
		No.	%	No.	%	No.	%	No.	%
1	Pusat Perubatan Universiti Malaya, Kuala Lumpur	1293	4.8	55	0.8	990	11.6	1045	6.8
2	Institut Jantung Negara, Kuala Lumpur	15375	58.0	2941	42.4	3114	36.2	6055	39.0
3	Hospital Pulau Pinang, Pulau Pinang	2369	9.0	484	7.0	546	6.4	1030	6.6
4	Hospital Umum Sarawak, Sarawak	2952	11.2	747	10.8	716	8.4	1463	9.4
5	Hospital Sultanah Aminah, Johor	1902	7.2	477	6.8	470	5.4	947	6.2
6	Hospital Sultanah Bahiyah, Kedah	1118	4.2	425	6.2	570	6.6	995	6.4
7	Hospital Queen Elizabeth, Sabah	453	1.8						
8	Hospital Pakar KPJ Selangor, Selangor	72	0.2						
9	Hospital Serdang, Selangor	148	0.6	475	6.8	253	3.0	728	4.6
10	Pusat Perubatan Universiti Kebangsaan Malaysia, Kuala Lumpur	20	0.0						
11	Pusat Perubatan Mahkota, Melaka	12	0.0						
12	Hospital Sultanah Nur Zahirah, Terengganu	111	0.4	138	2.0	158	1.8	296	2.0
13	Hospital Tengku Ampuan Afzan, Pahang	29	0.2	213	3.0	282	3.2	495	3.2
14	Pusat Perubatan Subang Jaya, Selangor	92	0.4	83	1.2	129	1.5	212	1.3
15	Hospital Queen Elizabeth 2, Sabah	518	2.0	587	8.5	581	6.7	1168	7.5
16	Hospital Pantai Ipoh, Perak	19	0.0	82	1.3	9	0.2	91	0.6
17	Hospital Raja Permaisuri Bainun, Perak			182	2.6	466	5.4	648	4.2
18	Hospital Raja Perempuan Zainab II, Kelantan			2	0.0	16	0.2	18	0.2
19	UiTM Hospital Sg Buloh, Selangor			37	0.6	286	3.4	323	2.0
Total		26483	100.0	6928	100.0	8586	100.0	15514	100.0

*Each SDP started contributing data at different time periods

Table 1.4.1 Age-gender distribution of patients who underwent PCI, NCVD-PCI Registry, 2007 – 2014

Age group	2007 – 2012		2013		2014		2013 – 2014	
	Total no. of patients = 24459		Total no. of patients = 6353		Total no. of patients = 7783		Total no. of patients = 14136	
	Male	Female	Male	Female	Male	Female	Male	Female
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
20 – < 30	81 (0.4)	8 (0.2)	28 (0.6)	1 (0.0)	30 (0.4)	3 (0.2)	58 (0.4)	4 (0.2)
30 – < 40	892 (4.4)	63 (1.4)	277 (5.2)	13 (1.2)	368 (5.6)	11 (0.8)	645 (5.4)	24 (1.0)
40 – < 50	4212 (21.0)	446 (10.2)	1001 (19.0)	110 (10.4)	1176 (18.0)	113 (9.0)	2177 (18.4)	223 (9.6)
50 – < 60	7485 (37.3)	1289 (29.4)	2025 (38.2)	330 (31.0)	2446 (37.5)	370 (29.5)	4471 (37.9)	700 (30.2)
60 – < 70	5354 (26.7)	1641 (37.4)	1399 (26.5)	368 (34.6)	1789 (27.5)	480 (38.3)	3188 (27.1)	848 (36.6)
70 – < 80	1887 (9.4)	870 (19.8)	513 (9.7)	218 (20.6)	649 (10.0)	243 (19.4)	1162 (9.8)	461 (19.8)
≥ 80	162 (0.8)	69 (1.6)	47 (0.8)	23 (2.2)	70 (1.0)	35 (2.8)	117 (1.0)	58 (2.6)
Total	20073 (100.0)	4386 (100.0)	5290 (100.0)	1063 (100.0)	6528 (100.0)	1255 (100.0)	11818 (100.0)	2318 (100.0)

Table 1.4.2 Age-gender distribution of patients who underwent PCI, by ethnic group, NCVD-PCI Registry, 2007 – 2014

Gender	Age group	2013					2014				
		Total no. of patients = 6353					Total no. of patients = 7783				
		Malay	Chinese	Indian	Others	Not Available	Malay	Chinese	Indian	Others*	Not Available
Male	20 – < 30	15 (0.7)	3 (0.2)	8 (0.9)	2 (0.3)	0 (0)	18 (0.6)	1 (0.0)	9 (0.8)	2 (0.4)	0 (0)
	30 – < 40	158 (5.9)	38 (3.4)	42 (4.5)	38 (7.3)	1 (33.3)	215 (6.4)	44 (3.2)	60 (4.7)	48 (8.1)	1 (33.3)
	40 – < 50	524 (19.6)	194 (17.0)	165 (17.4)	117 (22.6)	1 (33.3)	605 (18.2)	195 (14.3)	234 (18.7)	142 (23.9)	0 (0)
	50 – < 60	1039 (38.8)	386 (33.8)	392 (41.4)	207 (40.0)	1 (33.4)	1311 (39.4)	442 (32.5)	478 (38.2)	214 (36.2)	1 (33.3)
	60 – < 70	692 (25.8)	351 (30.6)	246 (26.0)	110 (21.2)	0 (0)	870 (26.2)	450 (33.0)	344 (27.6)	125 (21.2)	0 (0)
	70 – < 80	232 (8.6)	159 (13.8)	82 (8.6)	40 (7.8)	0 (0)	271 (8.2)	211 (15.4)	113 (9.0)	53 (9.0)	1 (33.4)
	≥ 80	18 (0.6)	13 (1.2)	12 (1.2)	4 (0.8)	0 (0)	30 (1.0)	21 (1.6)	12 (1.0)	7 (1.2)	0 (0)
	Total	2678 (100.0)	1144 (100.0)	947 (100.0)	518 (100.0)	3 (100.0)	3320 (100.0)	1364 (100.0)	1250 (100.0)	591 (100.0)	3 (100.0)
Female	20 – < 30	1 (0.2)	0 (0)	0 (0)	0 (0)	0 (0)	2 (0.4)	1 (0.4)	0 (0)	0 (0)	0 (0)
	30 – < 40	7 (1.6)	2 (0.7)	2 (0.8)	2 (1.8)	0 (0)	7 (1.2)	1 (0.4)	3 (1.0)	0 (0)	0 (0)
	40 – < 50	56 (12.6)	10 (3.7)	28 (11.6)	16 (14.9)	0 (0)	54 (9.4)	14 (4.6)	35 (11.8)	10 (12.0)	0 (0)
	50 – < 60	156 (35.2)	64 (23.8)	76 (31.6)	32 (29.7)	2 (100.0)	192 (33.4)	58 (19.4)	95 (32.0)	25 (30.2)	0 (0)
	60 – < 70	141 (31.8)	109 (40.6)	81 (33.8)	37 (34.2)	0 (0)	224 (38.8)	109 (36.4)	114 (38.4)	33 (39.8)	0 (0)
	70 – < 80	81 (18.2)	72 (26.8)	46 (19.2)	19 (17.6)	0 (0)	89 (15.4)	98 (32.8)	42 (14.2)	14 (16.8)	0 (0)
	≥ 80	2 (0.4)	12 (4.4)	7 (3.0)	2 (1.8)	0 (0)	8 (1.4)	18 (6.0)	8 (2.6)	1 (1.2)	0 (0)
	Total	444 (100.0)	269 (100.0)	240 (100.0)	108 (100.0)	2 (100.0)	576 (100.0)	299 (100.0)	297 (100.0)	83 (100.0)	0 (0)

*Others include Orang Asli, Kadazan, Melanau, Murut, Bajau, Bidayuh, Iban, Punjabi, Other Malaysian, and Foreigner

Gender	Age group	^2007 – 2012					2013 – 2014				
		Total no. of patients = 24459					Total no. of patients = 14136				
		Malay	Chinese	Indian	Others	**Not Available	Malay	Chinese	Indian	Others*	Not Available
Male	20 – < 30	43 (0.2) (0.4)	11 (0.0) (0.2)	17 (0.0) (0.4)	10 (0.0) (0.8)	0 (0) (0)	33 (0.6)	4 (0.2)	17 (0.8)	4 (0.4)	0 (0)
	30 – < 40	501 (2.4) (5.1)	132 (0.6) (2.9)	176 (0.8) (4.2)	82 (0.4) (6.1)	1 (0.0) (4.8)	373 (6.2)	82 (3.2)	102 (4.6)	86 (7.8)	2 (33.4)
	40 – < 50	2236 (11.2) (22.4)	752 (3.8) (16.6)	879 (4.4) (21.0)	341 (1.7) (25.4)	4 (0.0) (19.0)	1129 (18.8)	389 (15.6)	399 (18.3)	259 (23.3)	1 (16.6)
	50 – < 60	3878 (19.5) (38.9)	1515 (7.6) (33.3)	1632 (8.3) (38.9)	453 (2.3) (33.8)	7 (0.0) (33.3)	2350 (39.2)	828 (32.9)	870 (39.7)	421 (37.9)	2 (33.4)
	60 – < 70	2446 (12.2) (24.5)	1473 (7.4) (32.4)	1101 (5.5) (26.2)	326 (1.7) (24.3)	8 (0.0) (38.1)	1562 (26.0)	801 (31.9)	590 (26.8)	235 (21.2)	0 (0)
	70 – < 80	811 (4.0) (8.1)	601 (3.0) (13.3)	359 (1.8) (8.6)	115 (0.6) (8.6)	1 (0.0) (4.8)	503 (8.4)	370 (14.8)	195 (8.8)	93 (8.4)	1 (16.6)
	≥ 80	58 (0.2) (0.6)	59 (0.2) (1.3)	31 (0.2) (0.7)	14 (0.0) (1.0)	0 (0) (0)	48 (0.8)	34 (1.4)	24 (1.0)	11 (1.0)	0 (0)
	Total	9973 (49.7) (100.0)	4543 (22.6) (100.0)	4195 (21.0) (100.0)	1341 (6.7) (100.0)	21 (0.0) (100.0)	5998 (100.0)	2508 (100.0)	2197 (100.0)	1109 (100.0)	6 (100.0)
Female	20 – < 30	7 (0.2) (0.4)	0 (0) (0)	0 (0) (0)	1 (0.0) (0.3)	0 (0) (0)	3 (0.2)	1 (0.2)	0 (0)	0 (0)	0 (0)
	30 – < 40	37 (0.8) (2.0)	6 (0.2) (0.5)	16 (0.4) (1.5)	3 (0.0) (1.0)	1 (0.0) (25.0)	14 (1.4)	3 (0.6)	5 (1.0)	2 (1.0)	0 (0)
	40 – < 50	217 (5.0) (11.6)	55 (1.2) (5.0)	133 (3.0) (12.1)	40 (1.0) (13.2)	1 (0.0) (25.0)	110 (10.8)	24 (4.2)	63 (11.7)	26 (13.7)	0 (0)
	50 – < 60	627 (14.3) (33.6)	235 (5.4) (21.2)	337 (7.7) (30.6)	90 (2.0) (29.6)	0 (0) (0)	348 (34.2)	122 (21.4)	171 (31.7)	57 (29.9)	2 (100.0)
	60 – < 70	677 (15.5) (36.2)	456 (10.5) (41.2)	405 (9.3) (36.7)	101 (2.5) (33.2)	2 (0.0) (50.0)	365 (35.8)	218 (38.4)	195 (36.4)	70 (36.6)	0 (0)
	70 – < 80	291 (6.6) (15.6)	326 (7.4) (29.5)	188 (4.2) (17.1)	65 (1.4) (21.4)	0 (0) (0)	170 (16.6)	170 (30.0)	88 (16.4)	33 (17.2)	0 (0)
	≥ 80	12 (0.2) (0.6)	29 (0.6) (2.6)	24 (0.6) (2.0)	4 (0.0) (1.3)	0 (0) (0)	10 (1.0)	30 (5.2)	15 (2.8)	3 (1.6)	0 (0)
	Total	1868 (42.6) (100.0)	1107 (25.3) (100.0)	1103 (25.2) (100.0)	304 (6.9) (100.0)	4 (0.0) (100.0)	1020 (100.0)	568 (100.0)	537 (100.0)	191 (100.0)	2 (100.0)

*Others include Orang Asli, Kadazan, Melanau, Murut, Bajau, Bidayuh, Iban, Punjabi, Other Malaysian, and Foreigner

**Missing and Not Available were added together

^Percentage was presented differently in the 2007 – 2012 and 2013 – 2014 results. Percentage within the group was recalculated for 2007 – 2012 data and presented in italic font style

Table 1.4.3 Age-gender distribution of patients who underwent PCI, by pre-morbid diabetes, NCVD-PCI Registry, 2007 – 2014

Gender	Age group	2013						2014						
		Total no. of patients = 6353						Total no. of patients = 7783						
		Pre-morbid diabetes						Pre-morbid diabetes						
		Diabetic	Non-Diabetic	Not known	Diabetic	Non-Diabetic	Not known	Diabetic	Non-Diabetic	Not known	Diabetic	Non-Diabetic	Not known	
Male	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
	20 – < 30	5	0.2	19	0.6	4	1.2	6	0.2	21	0.6	3	0.6	
	30 – < 40	72	3.4	180	6.4	25	7.2	89	3.4	240	7.0	39	8.0	
	40 – < 50	326	15.4	591	20.9	84	23.8	390	14.7	694	20.5	92	18.6	
	50 – < 60	834	39.6	1067	37.7	124	35.2	1024	38.7	1234	36.5	188	38.2	
	60 – < 70	635	30.2	681	24	83	23.6	819	31.0	842	24.8	128	26.0	
	70 – < 80	215	10.2	269	9.6	29	8.2	289	11.0	322	9.4	38	7.8	
	≥ 80	20	1.0	24	0.8	3	0.8	27	1.0	39	1.2	4	0.8	
Female	Total	2107	100.0	2831	100.0	352	100.0	2644	100.0	3392	100.0	492	100.0	
	20 – < 30	0	0	1	0.2	0	0	1	0.2	2	0.4	0	0	
	30 – < 40	8	1.2	3	0.8	2	4.4	6	0.8	4	0.8	1	1.6	
	40 – < 50	62	9.8	43	11.0	5	11.2	63	8.4	44	9.8	6	10.1	
	50 – < 60	220	35.0	100	25.6	10	22.2	224	29.8	127	28.6	19	31.6	
	60 – < 70	222	35.5	130	33.2	16	35.6	300	40.0	159	35.8	21	35.1	
	70 – < 80	103	16.5	105	26.8	10	22.2	140	18.6	94	21.2	9	15.0	
	≥ 80	12	2.0	9	2.4	2	4.4	16	2.2	15	3.4	4	6.6	
	Total	627	100.0	391	100.0	45	100.0	750	100.0	445	100.0	60	100.0	

Gender	Age group	^2007 – 2012				2013 – 2014		
		Total no. of patients = 24459				Total no. of patients = 14136		
		Pre-morbid diabetes				Pre-morbid diabetes		
		Diabetic	Non-Diabetic	Not known	Missing	Diabetic	Non-Diabetic	Not known
Male	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
	20 – < 30	10 (0.0) (0.1)	59 (0.2) (0.5)	12 (0.0) (2.2)	0 (0) (0)	11 (0.2)	40 (0.6)	7 (0.8)
	30 – < 40	245 (1.2) (2.9)	616 (3.0) (5.6)	31 (0.2) (5.7)	0 (0) (0)	161 (3.4)	420 (6.9)	64 (7.6)
	40 – < 50	1484 (7.4) (17.5)	2623 (13.0) (23.8)	103 (0.6) (18.9)	2 (0.0) (11.1)	716 (15.0)	1285 (20.7)	176 (20.8)
	50 – < 60	3374 (16.8) (39.7)	3906 (19.5) (35.5)	196 (1.1) (35.9)	9 (0.0) (50.0)	1858 (39.2)	2301 (37.0)	312 (37.0)
	60 – < 70	2490 (12.4) (29.3)	2718 (13.7) (24.7)	140 (0.6) (25.6)	6 (0.0) (33.3)	1454 (30.6)	1523 (24.4)	211 (25.0)
	70 – < 80	831 (4.2) (9.8)	997 (5.1) (9.1)	58 (0.2) (10.6)	1 (0.0) (5.6)	504 (10.6)	591 (9.4)	67 (8.0)
	≥ 80	67 (0.4) (0.7)	89 (0.4) (0.8)	6 (0.0) (1.1)	0 (0) (0)	47 (1.0)	63 (1.0)	7 (0.8)
Female	Total	8501 (42.4) (100.0)	11008 (54.9) (100.0)	546 (2.7) (100.0)	18 (0.0) (100.0)	4751 (100.0)	6223 (100.0)	844 (100.0)
	20 – < 30	2 (0.0) (0.1)	6 (0.2) (0.4)	0 (0) (0)	0 (0) (0)	1 (0.0)	3 (0.4)	0 (0)
	30 – < 40	38 (0.8) (1.4)	23 (0.6) (1.4)	2 (0.0) (2.4)	0 (0) (0)	14 (1.1)	7 (0.8)	3 (2.8)
	40 – < 50	278 (6.4) (10.4)	154 (3.6) (9.4)	13 (0.2) (15.9)	1 (0.0) (33.3)	125 (9.1)	87 (10.4)	11 (10.5)
	50 – < 60	832 (19.0) (31.2)	435 (10.0) (26.6)	21 (0.4) (25.6)	1 (0.0) (33.3)	444 (32.2)	227 (27.2)	29 (27.7)
	60 – < 70	1011 (23.1) (38.0)	604 (13.9) (36.9)	25 (0.6) (30.5)	1 (0.0) (33.4)	522 (38.0)	289 (34.6)	37 (35.2)
	70 – < 80	464 (10.6) (17.4)	387 (8.8) (23.6)	19 (0.4) (23.2)	0 (0) (0)	243 (17.6)	199 (23.8)	19 (18.0)
	≥ 80	39 (0.8) (1.5)	28 (0.6) (1.7)	2 (0.0) (2.4)	0 (0) (0)	28 (2.0)	24 (2.8)	6 (5.8)
	Total	2664 (60.7) (100.0)	1637 (37.7) (100.0)	82 (1.6) (100.0)	3 (0.0) (100.0)	1377 (100.0)	836 (100.0)	105 (100.0)

[^]Percentage was presented differently in the 2007 – 2012 and 2013 – 2014 results. Percentage within the group was recalculated for 2007 – 2012 data and presented in italic font style

Table 1.4.4 Age-gender distribution of patients who underwent PCI, by pre-morbid hypertension, NCVD-PCI Registry, 2007 – 2014

Gender	Age group	2013						2014						
		Total no. of patients = 6353						Total no. of patients = 7783						
		Pre-morbid hypertension						Pre-morbid hypertension						
		Hypertensive		Non-hypertensive		Not known		Hypertensive		Non-hypertensive		Not known		
Male	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
	20 – < 30	7	0.2	17	1.0	4	1.4	7	0.2	18	1.0	5	1.2	
	30 – < 40	109	3.2	147	9.4	21	7.2	139	3.4	190	9.8	39	9.4	
	40 – < 50	540	15.8	385	24.4	76	25.7	584	14.0	496	25.3	96	23.0	
	50 – < 60	1318	38.7	597	37.8	110	37.2	1616	38.7	683	34.9	147	35.4	
	60 – < 70	1014	29.7	328	20.8	57	19.3	1265	30.3	421	21.6	103	24.8	
	70 – < 80	392	11.4	95	6.0	26	8.8	506	12.2	119	6.2	24	5.8	
	≥ 80	35	1.0	11	0.6	1	0.4	46	1.2	22	1.2	2	0.4	
Female	Total	3415	100.0	1580	100.0	295	100.0	4163	100.0	1949	100.0	416	100.0	
	20 – < 30	0	0	1	0.6	0	0	1	0.2	2	1.0	0	0	
	30 – < 40	9	1.1	2	1.2	2	5.2	9	0.9	1	0.4	1	2.0	
	40 – < 50	77	9.1	27	16.4	6	15.8	69	6.9	38	18.4	6	12.0	
	50 – < 60	250	29.0	70	42.4	10	26.4	284	28.4	74	36.0	12	24.0	
	60 – < 70	322	37.4	38	23.0	8	21.0	390	39.0	67	32.6	23	46.0	
	70 – < 80	183	21.2	25	15.2	10	26.4	218	21.8	19	9.2	6	12.0	
	≥ 80	19	2.2	2	1.2	2	5.2	28	2.8	5	2.4	2	4.0	
	Total	860	100.0	165	100.0	38	100.0	999	100.0	206	100.0	50	100.0	

Gender	Age group	^2007 – 2012				2013 – 2014		
		Total no. of patients = 24459				Total no. of patients = 14136		
		Pre-morbid hypertension				Pre-morbid hypertension		
		Hypertensive	Non-hypertensive	Not known	Missing	Hypertensive	Non-hypertensive	Not known
Male	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
	20 – < 30	20 (0.0) (0.1)	51 (0.2) (1.0)	10 (0.0) (2.2)	0 (0) (0)	14 (0.2)	35 (1.0)	9 (1.2)
	30 – < 40	437 (2.2) (3.1)	419 (2.0) (7.7)	35 (0.2) (7.6)	1 (0.0) (7.1)	248 (3.2)	337 (9.6)	60 (8.4)
	40 – < 50	2545 (12.7) (18.0)	1567 (7.8) (28.8)	99 (0.4) (21.5)	1 (0.0) (7.1)	1124 (14.9)	881 (25.0)	172 (24.2)
	50 – < 60	5355 (26.7) (37.8)	1961 (9.9) (36.1)	162 (0.9) (35.2)	7 (0.0) (50.0)	2934 (38.9)	1280 (36.2)	257 (36.2)
	60 – < 70	4143 (20.7) (29.3)	1103 (5.4) (20.3)	104 (0.6) (22.6)	4 (0.0) (28.7)	2279 (30.0)	749 (21.2)	160 (22.6)
	70 – < 80	1531 (7.7) (10.8)	307 (1.6) (5.6)	48 (0.2) (10.4)	1 (0.0) (7.1)	898 (11.8)	214 (6.0)	50 (7.0)
	≥ 80	128 (0.6) (0.9)	32 (0.2) (0.5)	2 (0.0) (0.5)	0 (0) (0)	81 (1.0)	33 (1.0)	3 (0.4)
Total		14159 (70.6) (100.0)	5440 (27.1) (100.0)	460 (2.3) (100.0)	14 (0.0) (100.0)	7578 (100.0)	3529 (100.0)	711 (100.0)
Female	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
	20 – < 30	5 (0.2) (0.1)	3 (0.0) (0.5)	0 (0) (0)	0 (0) (0)	1 (0)	3 (0.8)	0 (0)
	30 – < 40	39 (0.8) (1.1)	22 (0.6) (3.6)	2 (0.0) (3.5)	0 (0) (0)	18 (1.0)	3 (0.8)	3 (3.4)
	40 – < 50	338 (7.8) (9.1)	95 (2.2) (15.7)	11 (0.2) (19.3)	2 (0.0) (50.0)	146 (7.7)	65 (17.6)	12 (13.6)
	50 – < 60	1069 (24.4) (28.7)	203 (4.6) (33.5)	16 (0.4) (28.1)	1 (0.0) (25.0)	534 (28.7)	144 (38.8)	22 (25.0)
	60 – < 70	1443 (33.0) (38.8)	180 (4.2) (29.7)	17 (0.4) (29.8)	1 (0.0) (25.0)	712 (38.4)	105 (28.4)	31 (35.2)
	70 – < 80	768 (17.6) (20.7)	92 (2.0) (15.2)	10 (0.2) (17.5)	0 (0) (0)	401 (21.6)	44 (11.8)	16 (18.2)
	≥ 80	57 (1.2) (1.5)	11 (0.2) (1.8)	1 (0.0) (1.8)	0 (0) (0)	47 (2.6)	7 (1.8)	4 (4.6)
Total		3719 (85.0) (100.0)	606 (13.8) (100.0)	57 (1.2) (100.0)	4 (0.0) (100.0)	1859 (100.0)	371 (100.0)	88 (100.0)

^aPercentage was presented differently in the 2007 – 2012 and 2013 – 2014 results. Percentage within the group was recalculated for 2007 – 2012 data and presented in italic font style

Table 1.4.5 Age-gender distribution of patients who underwent PCI, by pre-morbid dyslipidaemia, NCVD-PCI Registry, 2007 – 2014

Gender	Age group	2013						2014						
		Total no. of patients = 6353						Total no. of patients = 7783						
		Pre-morbid dyslipidaemia						Pre-morbid dyslipidaemia						
		Yes		No		Not known		Yes		No		Not known		
Male	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
	20 – < 30	12	0.4	10	0.6	6	1.2	14	0.4	9	0.4	7	1.1	
	30 – < 40	139	4.4	102	6.2	36	7.2	178	4.8	143	6.8	47	7.3	
	40 – < 50	571	18.2	326	19.8	104	21.0	579	15.4	456	21.6	141	21.8	
	50 – < 60	1197	38.1	641	38.8	187	37.6	1456	38.5	761	36.0	229	35.4	
	60 – < 70	887	28.3	392	23.8	120	24.2	1101	29.1	532	25.2	156	24.2	
	70 – < 80	311	9.8	161	9.8	41	8.2	397	10.6	189	9.0	63	9.8	
	≥ 80	28	0.8	16	1.0	3	0.6	45	1.2	22	1.0	3	0.4	
Female	Total	3145	100.0	1648	100.0	497	100.0	3770	100.0	2112	100.0	646	100.0	
	20 – < 30	0	0	1	0.4	0	0	0	0	3	0.8	0	0	
	30 – < 40	6	0.9	5	1.6	2	2.2	8	1.0	2	0.6	1	1.2	
	40 – < 50	60	8.9	41	13.6	9	9.4	66	8.2	38	10.6	9	10.4	
	50 – < 60	217	32.6	86	28.4	27	28.4	253	31.2	96	26.6	21	24.4	
	60 – < 70	234	35.2	104	34.4	30	31.6	301	37.2	139	38.6	40	46.6	
	70 – < 80	134	20.2	61	20.2	23	24.2	161	20.0	70	19.4	12	14.0	
	≥ 80	15	2.2	4	1.4	4	4.2	20	2.4	12	3.4	3	3.4	
	Total	666	100.0	302	100.0	95	100.0	809	100.0	360	100.0	86	100.0	

Gender	Age group	^2007 – 2012				2013 – 2014		
		Total no. of patients = 24459				Total no. of patients = 14136		
		Pre-morbid dyslipidaemia				Pre-morbid dyslipidaemia		
		Yes	No	Not known	Missing	Yes	No	Not known
Male	20 – < 30	37 (0.2) (0.3)	30 (0.2) (0.6)	14 (0.0) (1.4)	0 (0) (0)	26 (0.4)	19 (0.6)	13 (1.2)
		592 (3.0) (4.1)	251 (1.2) (5.3)	48 (0.2) (4.9)	1 (0.0) (3.5)	317 (4.6)	245 (6.6)	83 (7.2)
		2903 (14.4) (20.3)	1097 (5.5) (23.1)	205 (1.1) (21.1)	7 (0.0) (24.1)	1150 (16.6)	782 (20.7)	245 (21.4)
	40 – < 50	5460 (27.2) (38.1)	1665 (8.3) (35.1)	345 (1.9) (35.5)	15 (0.0) (51.7)	2653 (38.4)	1402 (37.1)	416 (36.4)
		3887 (19.4) (27.1)	1207 (6.1) (25.4)	255 (1.3) (26.2)	5 (0.0) (17.2)	1988 (28.8)	924 (24.6)	276 (24.2)
	50 – < 60	1343 (6.6) (9.4)	443 (2.2) (9.3)	100 (0.4) (10.3)	1 (0.0) (3.5)	708 (10.2)	350 (9.4)	104 (9.0)
		105 (0.6) (0.7)	51 (0.2) (1.2)	6 (0.0) (0.6)	0 (0) (0)	73 (1.0)	38 (1.0)	6 (0.6)
	Total	14327 (71.4) (100.0)	4744 (23.7) (100.0)	973 (4.9) (100.0)	29 (0.0) (100.0)	6915 (100.0)	3760 (100.0)	1143 (100.0)
Female	20 – < 30	5 (0.2) (0.2)	3 (0.0) (0.3)	0 (0) (0)	0 (0) (0)	0 (0)	4 (0.6)	0 (0)
		43 (1.0) (1.3)	15 (0.4) (1.6)	5 (0.2) (2.7)	0 (0) (0)	14 (1.0)	7 (1.0)	3 (1.6)
		328 (7.4) (10.1)	88 (2.0) (9.4)	28 (0.6) (14.8)	2 (0.0) (25.0)	126 (8.6)	79 (12.0)	18 (10.0)
	40 – < 50	989 (22.6) (30.4)	257 (5.8) (27.5)	40 (1.0) (21.2)	3 (0.0) (37.5)	470 (31.8)	182 (27.4)	48 (26.6)
		1224 (28.0) (37.6)	344 (7.8) (36.8)	71 (1.6) (37.6)	2 (0.0) (25.0)	535 (36.2)	243 (36.8)	70 (38.6)
	50 – < 60	623 (14.2) (19.1)	205 (4.6) (22.0)	41 (1.0) (21.7)	1 (0.0) (12.5)	295 (20.0)	131 (19.8)	35 (19.4)
		43 (1.0) (1.3)	22 (0.6) (2.4)	4 (0.0) (2.0)	0 (0) (0)	35 (2.4)	16 (2.4)	7 (3.8)
	Total	3255 (74.4) (100.0)	934 (21.2) (100.0)	189 (4.4) (100.0)	8 (0.0) (100.0)	1475 (100.0)	662 (100.0)	181 (100.0)

[^]Percentage was presented differently in 2007 – 2012 and 2013 – 2014 results. Percentage within the group was recalculated for 2007 – 2012 data and presented in italic font style

Table 1.4.6 Age-gender distribution of patients who underwent PCI, by family history of premature cardiovascular disease, NCVD-PCI Registry, 2007 – 2014

Gender	Age group	2013						2014					
		Total no. of patients = 6353						Total no. of patients = 7783					
		Family history of premature cardiovascular disease						Family history of premature cardiovascular disease					
		Yes		No		Not known		Yes		No		Not known	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male	20 – < 30	9	1.6	17	0.4	2	0.2	3	0.4	19	0.4	8	0.6
	30 – < 40	42	7.0	187	5.2	48	4.4	61	9.2	227	5.0	80	6.0
	40 – < 50	140	23.3	637	17.8	224	20.4	150	22.8	765	16.8	261	19.8
	50 – < 60	262	43.7	1344	37.5	419	38.2	259	39.4	1678	37.0	509	38.4
	60 – < 70	114	19.0	992	27.7	293	26.6	141	21.4	1320	29.0	328	24.8
	70 – < 80	30	5.0	383	10.6	100	9.0	41	6.2	482	10.6	126	9.6
	≥ 80	2	0.4	32	0.8	13	1.2	4	0.6	55	1.2	11	0.8
	Total	599	100.0	3592	100.0	1099	100.0	659	100.0	4546	100.0	1323	100.0
Female	20 – < 30	1	1.0	0	0	0	0	0	0	2	0.2	1	0.4
	30 – < 40	3	2.7	4	0.6	6	3.0	0	0	9	1.0	2	0.8
	40 – < 50	13	11.7	81	10.7	16	8.2	22	17.6	68	7.9	23	9.2
	50 – < 60	49	44.1	218	28.7	63	32.4	34	27.2	261	29.7	75	30.2
	60 – < 70	30	27.0	265	35.0	73	37.4	43	34.4	335	38.0	102	41.0
	70 – < 80	15	13.5	171	22.6	32	16.4	23	18.4	177	20.0	43	17.2
	≥ 80	0	0	18	2.4	5	2.6	3	2.4	29	3.2	3	1.2
	Total	111	100.0	757	100.0	195	100.0	125	100.0	881	100.0	249	100.0

Gender	Age group	^2007 – 2012				2013 – 2014		
		Total no. of patients = 24459				Total no. of patients = 14136		
		Family history of premature cardiovascular disease				Family history of premature cardiovascular disease		
		Yes	No	Not known	Missing	Yes	No	Not known
Male		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
		25 (0.2) (0.7)	44 (0.2) (0.3)	12 (0.0) (0.5)	0 (0) (0)	12 (1.0)	36 (0.4)	10 (0.4)
		221 (1.2) (6.4)	590 (3.0) (4.1)	81 (0.4) (3.5)	0 (0) (0)	103 (8.2)	414 (5.0)	128 (5.2)
		912 (4.6) (26.6)	2878 (14.4) (20.1)	415 (2.0) (18.0)	7 (0.0) (26.0)	290 (23.0)	1402 (17.3)	485 (20.0)
		1314 (6.6) (38.3)	5262 (26.2) (36.8)	898 (4.4) (38.8)	11 (0.0) (41.0)	521 (41.5)	3022 (37.3)	928 (38.4)
		735 (3.6) (21.4)	3997 (20.0) (28.0)	615 (3.0) (26.6)	7 (0.0) (26.0)	255 (20.3)	2312 (28.4)	621 (25.6)
		216 (1.0) (6.3)	1399 (7.0) (9.8)	270 (1.4) (11.7)	2 (0.0) (7.0)	71 (5.6)	865 (10.6)	226 (9.4)
		10 (0.0) (0.3)	131 (0.6) (0.9)	21 (0.2) (0.9)	0 (0) (0)	6 (0.4)	87 (1.0)	24 (1.0)
Female	Total	3433 (17.2) (100.0)	14301 (71.4) (100.0)	2312 (11.4) (100.0)	27 (0.0) (100.0)	1258 (100)	8138 (100)	2422 (100)
Female		2 (0.0) (0.3)	6 (0.2) (0.2)	0 (0) (0)	0 (0) (0)	1 (0.4)	2 (0.2)	1 (0.2)
		25 (0.6) (3.5)	31 (0.8) (1.0)	7 (0.2) (0.2)	0 (0) (0)	3 (1.2)	13 (0.8)	8 (1.8)
		107 (2.4) (15.0)	272 (6.2) (8.7)	66 (1.6) (12.1)	1 (0.0) (14.3)	35 (14.8)	149 (9.0)	39 (8.9)
		240 (5.4) (33.4)	899 (20.3) (28.9)	145 (3.4) (26.6)	5 (0.2) (71.4)	83 (35.2)	479 (29.3)	138 (31.1)
		246 (5.5) (34.3)	1192 (27.1) (38.3)	202 (4.5) (37.0)	1 (0.0) (14.3)	73 (31.0)	600 (36.7)	175 (39.4)
		93 (2.2) (13.0)	663 (15.2) (21.3)	114 (2.6) (20.9)	0 (0) (0)	38 (16.2)	348 (21.2)	75 (16.8)
		5 (0.2) (0.5)	52 (1.2) (1.6)	12 (0.2) (3.2)	0 (0) (0)	3 (1.2)	47 (2.8)	8 (1.8)
Total		718 (16.3) (100.0)	3115 (71.0) (100.0)	546 (12.5) (100.0)	7 (0.2) (100.0)	236 (100)	1638 (100)	444 (100)

[^]Percentage was presented differently in 2007 – 2012 and 2013 – 2014 results. Percentage within the group was recalculated for 2007 – 2012 data and presented in italic font style

Table 1.5.1 Presence of cumulative risk factors, NCVD-PCI Registry, 2007 – 2014

Presence of cumulative risk factors*	2007 – 2012		2013		2014		2013 – 2014	
	Total no. of patients = 24459		Total no. of patients = 6353		Total no. of patients = 7783		Total no. of patients = 14136	
	No.	%	No.	%	No.	%	No.	%
None	483	2.0	162	2.6	240	3.0	402	2.8
1 risk factor	1798	7.4	719	11.4	948	12.2	1667	11.8
2 risk factors	4389	18.0	1422	22.3	1681	21.6	3103	22.0
3 risk factors	7250	29.6	1955	30.7	2194	28.2	4149	29.4
> 3 risk factors	10539	43.0	2095	33.0	2720	35.0	4815	34.0
Total	24459	100.0	6353	100.0	7783	100.0	14136	100.0

*Risk factors were defined as presence of 1) dyslipidaemia, 2) hypertension, 3) diabetes, 4) family history of premature cardiovascular disease, 5) smoking [current smokers and former smokers (quit more than 30 days)], and 6) obesity (BMI >= 23.0)

Table 1.5.2 Presence of cumulative risk factors by gender, NCVD-PCI Registry, 2007 – 2014

Gender	Presence of cumulative risk factors*	2007 – 2012		2013		2014		2013 – 2014	
		Total no. of patients = 24459		Total no. of patients = 6353		Total no. of patients = 7783		Total no. of patients = 14136	
		No.	%	No.	%	No.	%	No.	%
Male	None	388	2.0	125	2.4	199	3.0	324	2.8
	1 risk factor	1482	7.4	614	11.6	811	12.4	1425	12.0
	2 risk factors	3503	17.4	1163	22.0	1368	21.0	2531	21.4
	3 risk factors	5787	28.8	1569	29.6	1801	27.6	3370	28.6
	> 3 risk factors	8913	44.4	1819	34.4	2349	36.0	4168	35.2
	Total	20073	100.0	5290	100.0	6528	100.0	11818	100.0
Female	None	95	2.2	37	3.4	41	3.2	78	3.4
	1 risk factor	316	7.2	105	9.8	137	10.9	242	10.4
	2 risk factors	886	20.2	259	24.4	313	24.9	572	24.6
	3 risk factors	1463	33.4	386	36.4	393	31.4	779	33.6
	> 3 risk factors	1626	37.0	276	26.0	371	29.6	647	28.0
	Total	4386	100.0	1063	100.0	1255	100.0	2318	100.0

*Risk factors were defined as presence of 1) dyslipidaemia, 2) hypertension, 3) diabetes, 4) family history of premature cardiovascular disease, 5) smoking [included current smokers and former smokers (quit more than 30 days)], and 6) obesity (BMI >= 23.0)