Maternal Mortality Analysis - the Malaysian Experience

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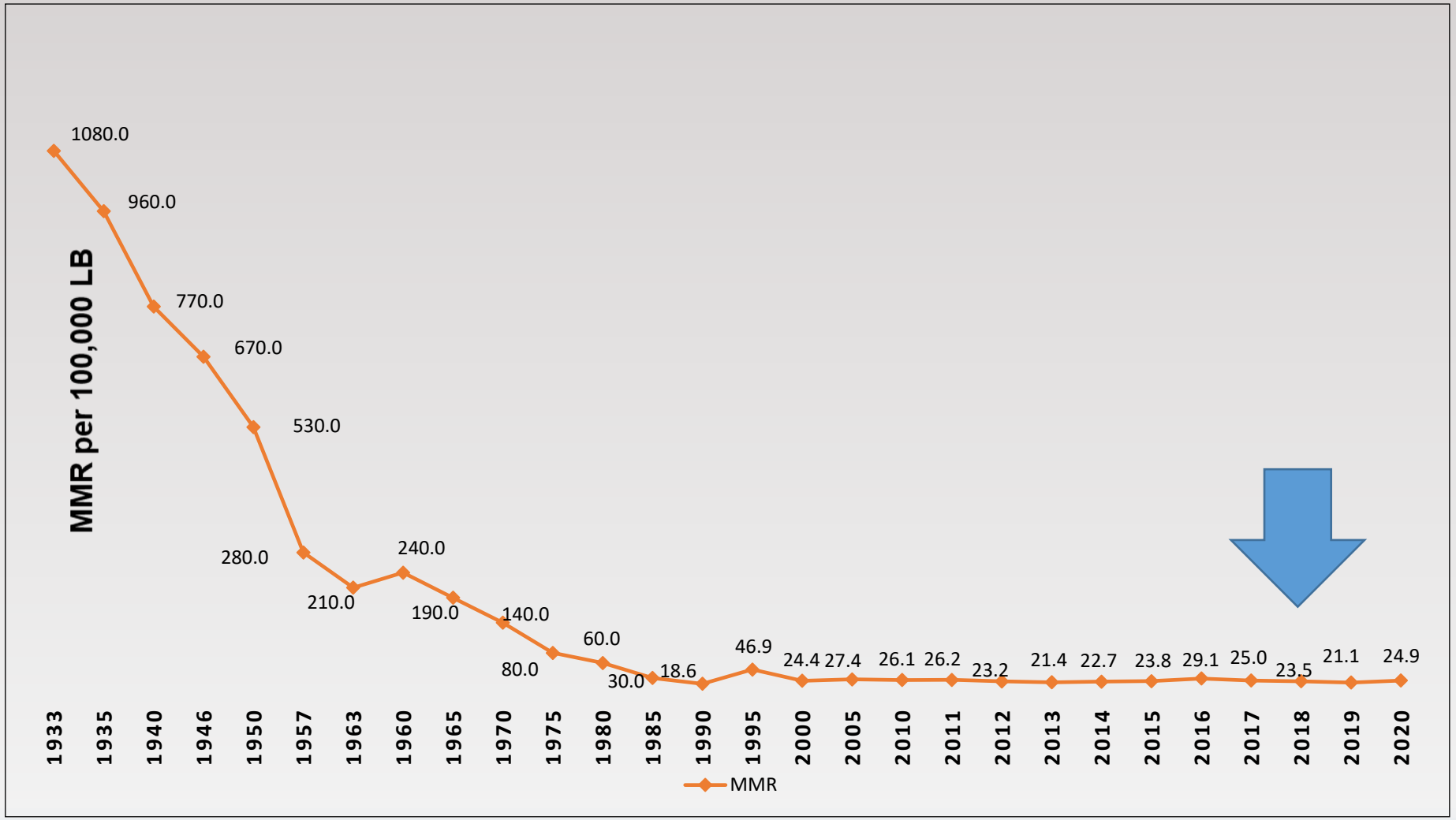
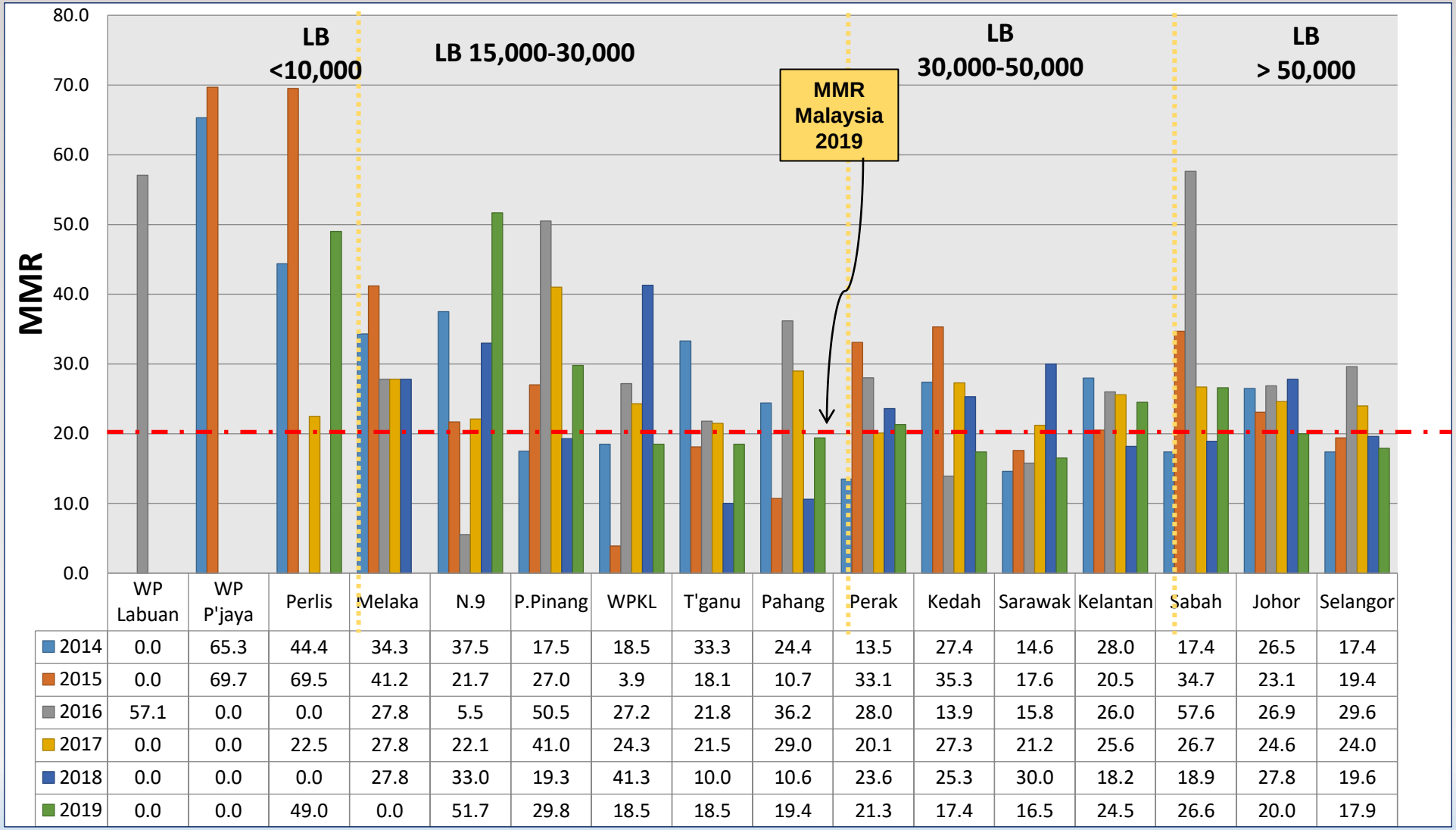
Malaysia

Maternal Mortality Ratio (MMR) : Malaysia 1933 – 2019



Source of data : Department of Statistics, Malaysia 2021
: Family Health Development Division , Ministry of Health

Maternal Mortality Ratio by State: 2014-2019

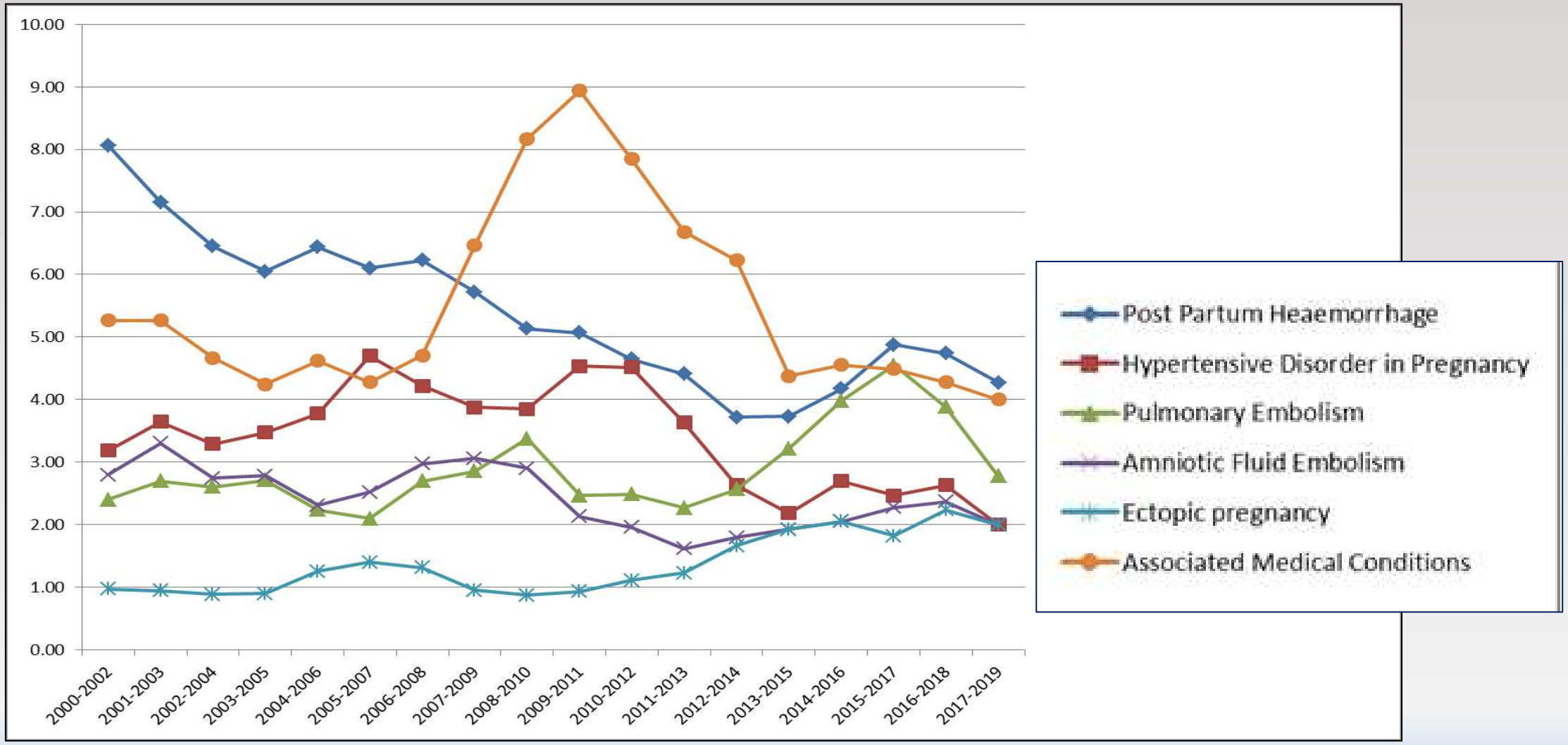


	WP Labuan	WP P'jaya	Perlis	Melaka	N.9	P.Pinang	WPKL	T'ganu	Pahang	Perak	Kedah	Sarawak	Kelantan	Sabah	Johor	Selangor
2014	0.0	65.3	44.4	34.3	37.5	17.5	18.5	33.3	24.4	13.5	27.4	14.6	28.0	17.4	26.5	17.4
2015	0.0	69.7	69.5	41.2	21.7	27.0	3.9	18.1	10.7	33.1	35.3	17.6	20.5	34.7	23.1	19.4
2016	57.1	0.0	0.0	27.8	5.5	50.5	27.2	21.8	36.2	28.0	13.9	15.8	26.0	57.6	26.9	29.6
2017	0.0	0.0	22.5	27.8	22.1	41.0	24.3	21.5	29.0	20.1	27.3	21.2	25.6	26.7	24.6	24.0
2018	0.0	0.0	0.0	27.8	33.0	19.3	41.3	10.0	10.6	23.6	25.3	30.0	18.2	18.9	27.8	19.6
2019	0.0	0.0	49.0	0.0	51.7	29.8	18.5	18.5	19.4	21.3	17.4	16.5	24.5	26.6	20.0	17.9

MMR Malaysia:
2014 - 22.3
2015 - 23.8
2016 - 29.1
2017 - 25.0
2018 - 23.5
2019 – 21.1

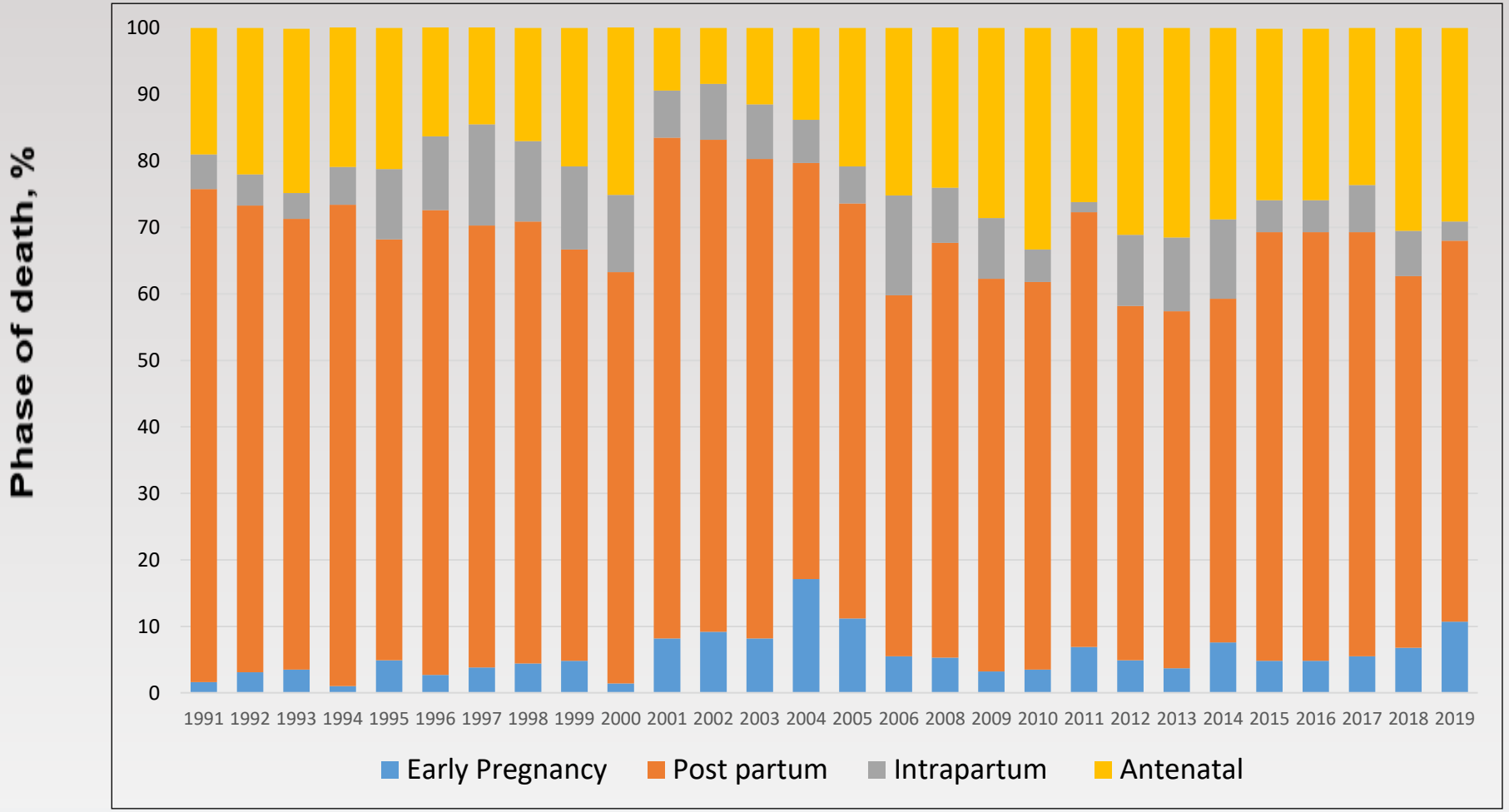
Source of data : Department of Statistics, Malaysia

ROLLING 3-YEAR AVERAGE CAUSE SPECIFIC MMR per 100,000 LB FOR COMMON CAUSES OF DEATH : MALAYSIA, 2000 – 2019



Source of data : 2004 - 2008 : Reports on the Confidential Enquiries into Maternal Deaths in Malaysia
2009 – 2018 : Family Health Development Division, MOH

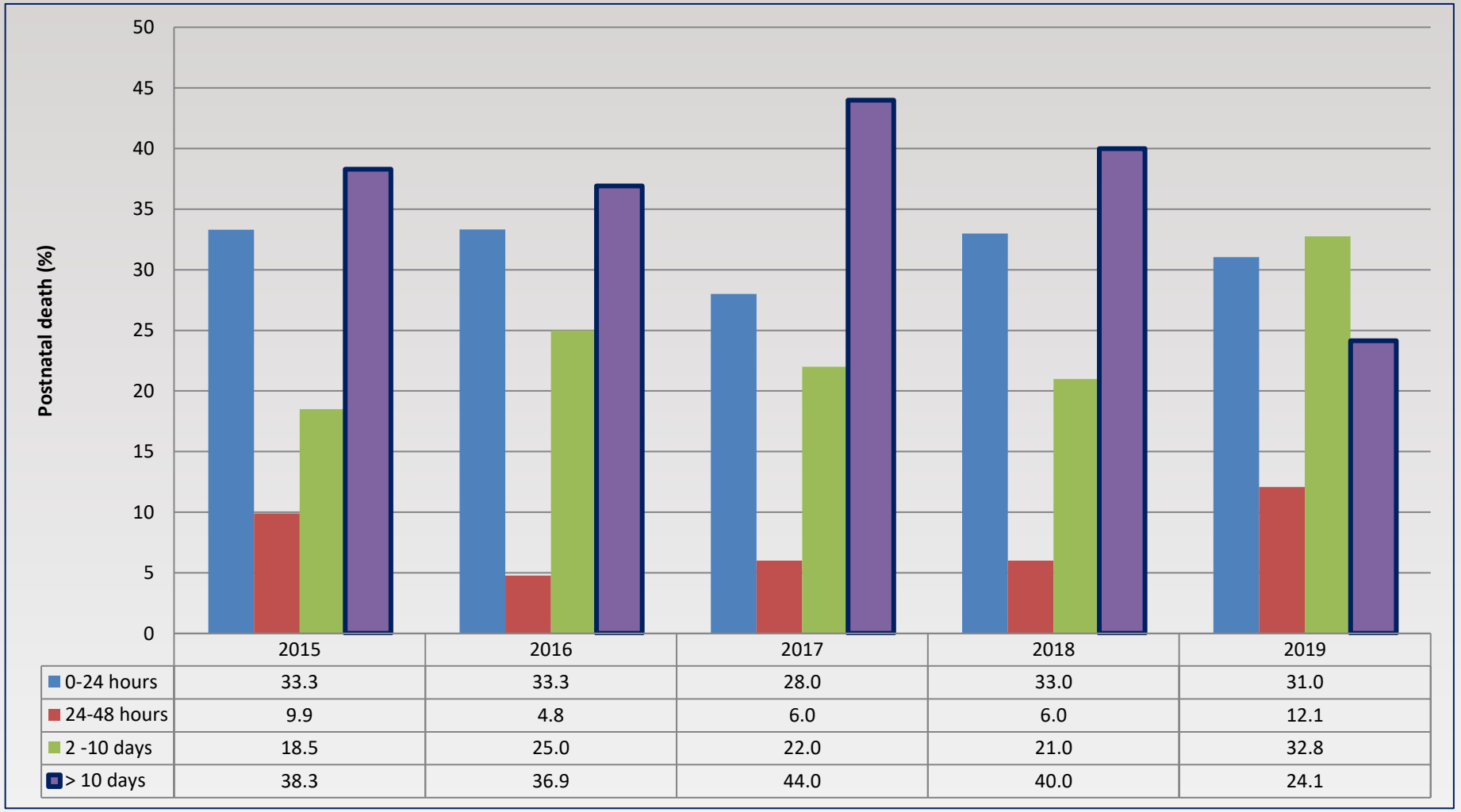
Maternal Deaths by Stage of Pregnancy : Malaysia 1991-2019



8-33% : Antenatal
2-15% : Intrapartum
52-75%: Postpartum
8-32% : Early pregnancy

Source of data : 2001 -2011 : Reports on the Confidential Enquiries into Maternal Deaths in Malaysia
2012 – 2019 : Family Health Development Division MOH

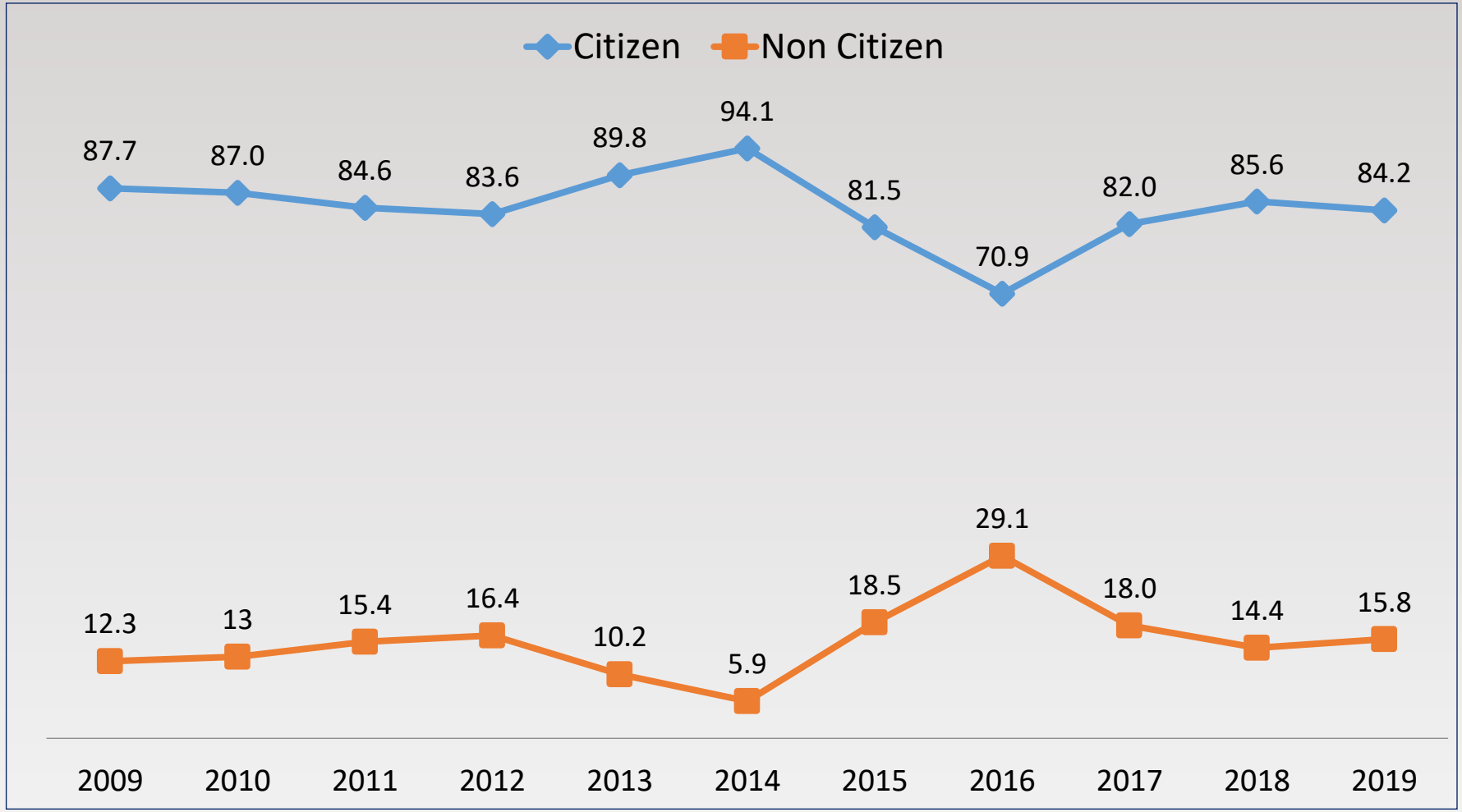
Postpartum Deaths By Hours/Days : 2015-2019



	2015	2016	2017	2018	2019
0-24 hours	33.3	33.3	28.0	33.0	31.0
24-48 hours	9.9	4.8	6.0	6.0	12.1
2 -10 days	18.5	25.0	22.0	21.0	32.8
> 10 days	38.3	36.9	44.0	40.0	24.1

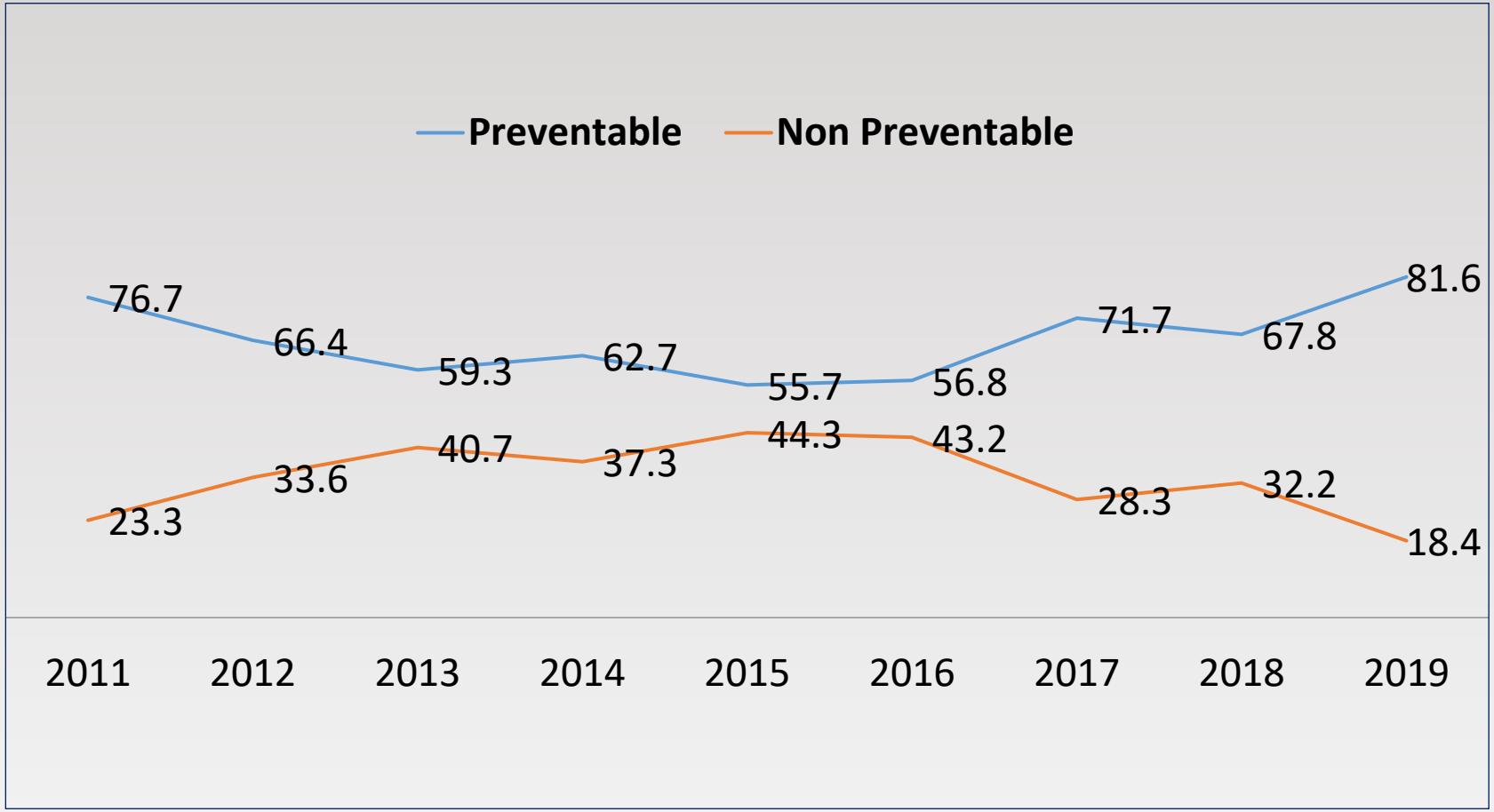
Source of data : 2001 -2011 : Reports on the Confidential Enquiries into Maternal Deaths in Malaysia
2012 – 2019 : Family Health Development Division MOH

Maternal Death by Citizenship 2009 – 2019



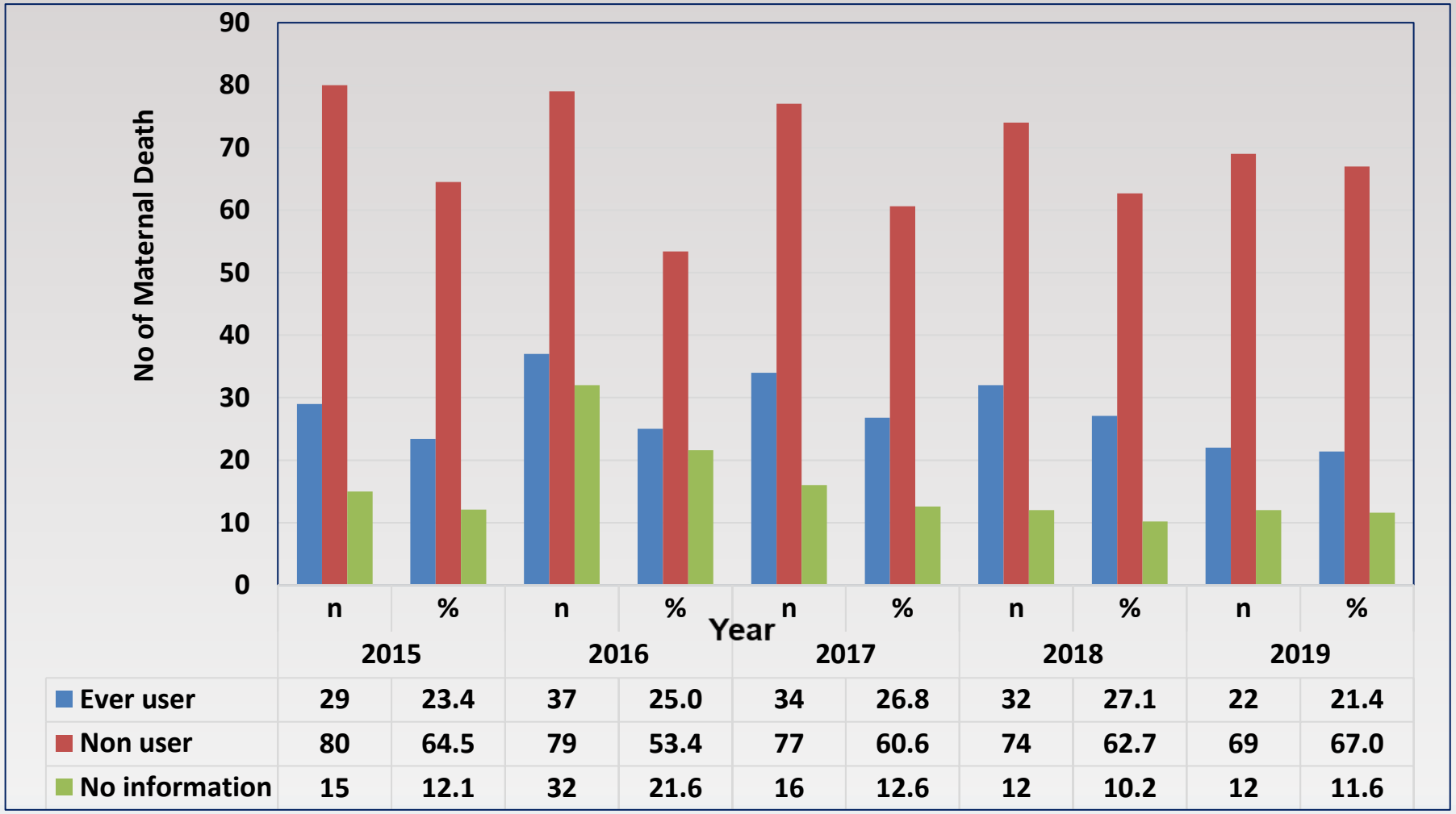
Source of data : 2001 -2011 : Reports on the Confidential Enquiries into Maternal Deaths in Malaysia
2012 – 2018 : Family Health Development Division MOH

Percentage of preventable deaths of maternal deaths : 2011-2019



Source of data : 2001 -2011 : Reports on the Confidential Enquiries into Maternal Deaths in Malaysia
2012 – 2019 : Family Health Development Division MOH

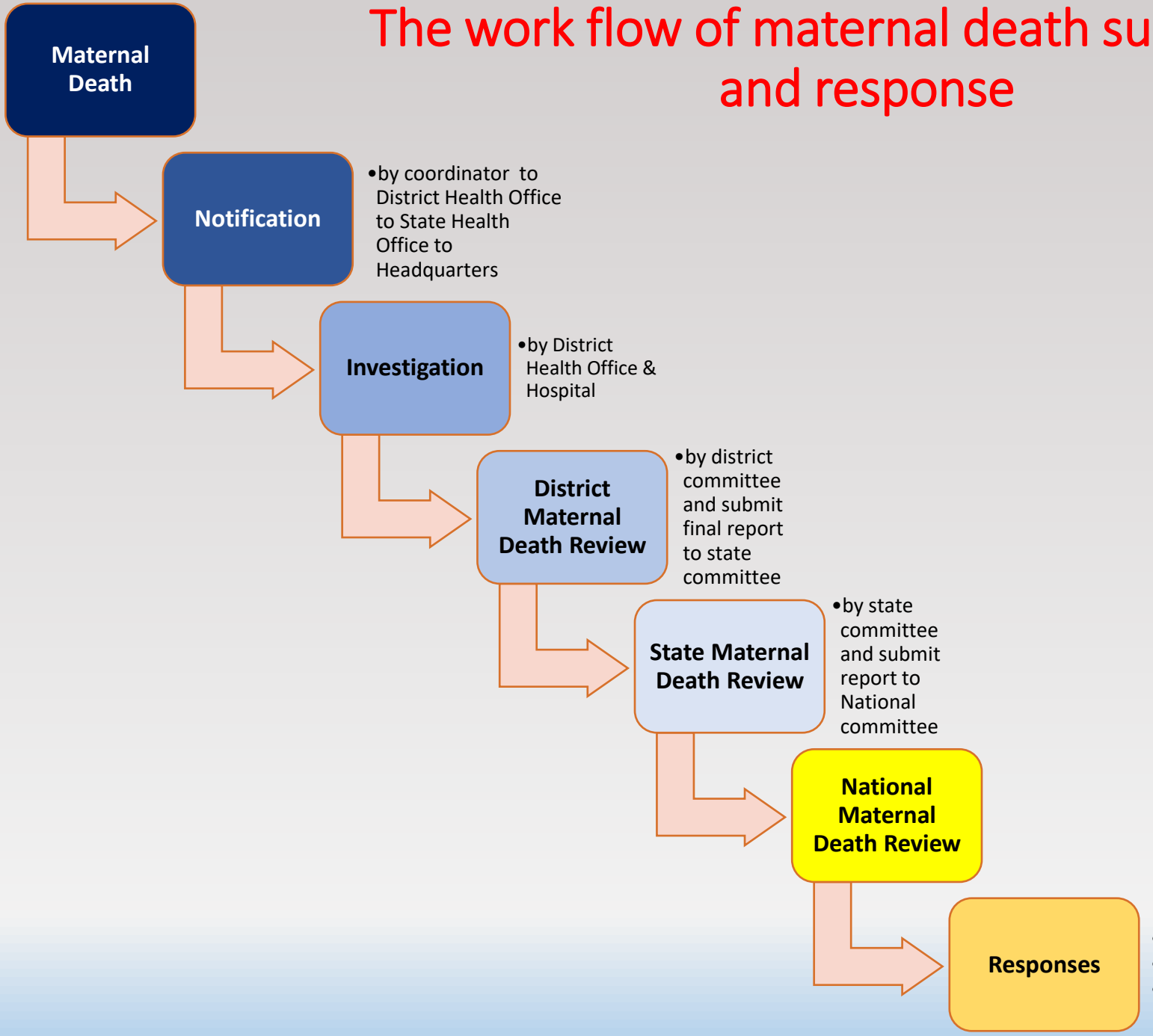
Maternal deaths by family planning practice 2015-2019



	2015		2016		2017		2018		2019	
	n	%	n	%	n	%	n	%	n	%
Ever user	29	23.4	37	25.0	34	26.8	32	27.1	22	21.4
Non user	80	64.5	79	53.4	77	60.6	74	62.7	69	67.0
No information	15	12.1	32	21.6	16	12.6	12	10.2	12	11.6

Source of data : 2001 -2011 : Reports on the Confidential Enquiries into Maternal Deaths in Malaysia
2012 – 2019 : Family Health Development Division MOH

The work flow of maternal death surveillance and response



National Maternal Death Review – conduct CEMD

- Members : relevant expertise - Public Health, Obstetrics and Gynecology, Family Medicine, Internal Medicine, Anesthesia, Forensic and Nursing
- reviews the reports submitted by the state committee
- studies the adequacy of investigation and the clinical administrative circumstances of every maternal death in detail.
- Conclusion of the enquiry:
  - Cause of Death – follows ICD 10
  - Classification of Death – Direct/indirect/fortuitous
  - Preventable/Non-preventable
  - Contributing factors
  - Substandard care
  - Remedial measures

CEMD - Confidential Enquiries into Maternal Deaths

Benefits of CEMD

1 Strengthening of pregnancy related deaths reporting process

- improved tremendously since 1991
- contributed to more efficient data collection and analysis - timely interventions and evidence based recommendations

2 Improve health services and accessibility for pregnant women

- good justifications for resources allocations to improve maternity health care – funding, infrastructures, human resource etc.

3 Strengthening or introduction of specific initiatives to improve maternal health

- Eg: Introduction of Pre-pregnancy care, based on common causes of maternal death

4 Improvement of work process based on the shortfalls

- Eg: upon discharge, notification of high risk cases by the hospitals to providers at health clinics

5 Improve integration and cooperation among the different stakeholders

- Eg: public-private partnership

6 Development of Training Manuals, Guidelines and Protocols

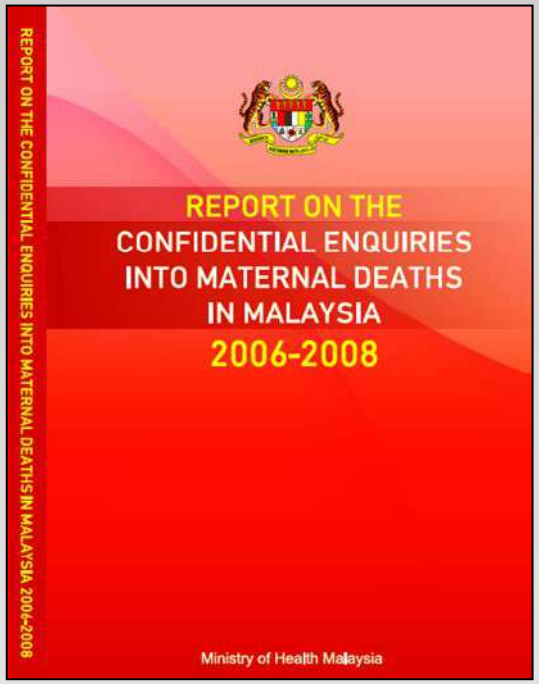
- Development of training manuals eg: Manual on Hypertensive Disorders, Management of Heart Diseases in Pregnancy, Management of Postpartum Haemorrhage, Venous Thromboembolism and Perinatal Care Manual.

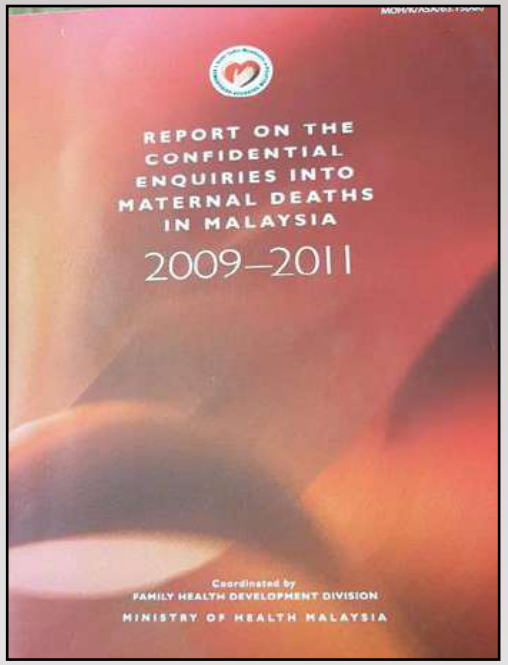
7 Publication of CEMD reports and dissemination of case illustrations

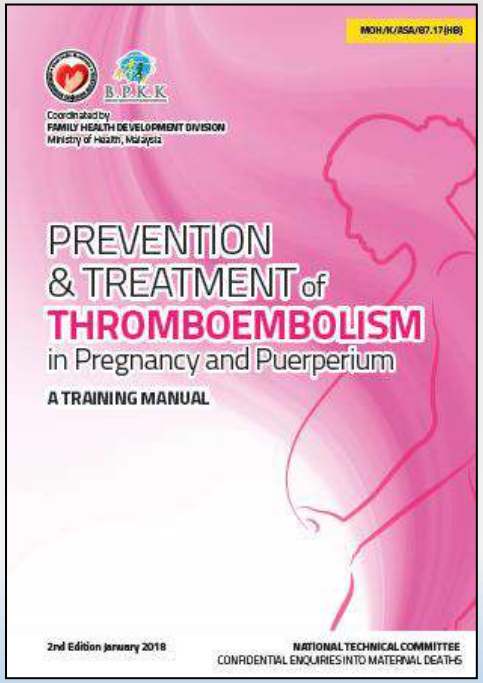
- Triennially CEMD report

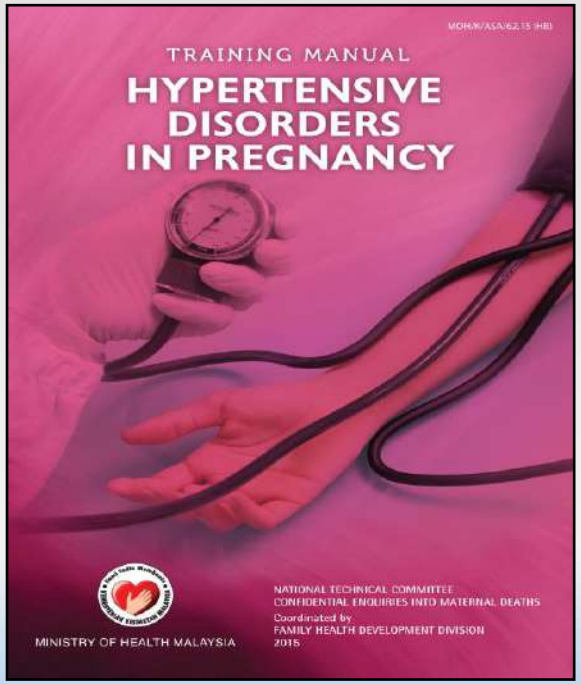
PUBLICATION – GUIDELINES / MANUAL/REPORTS

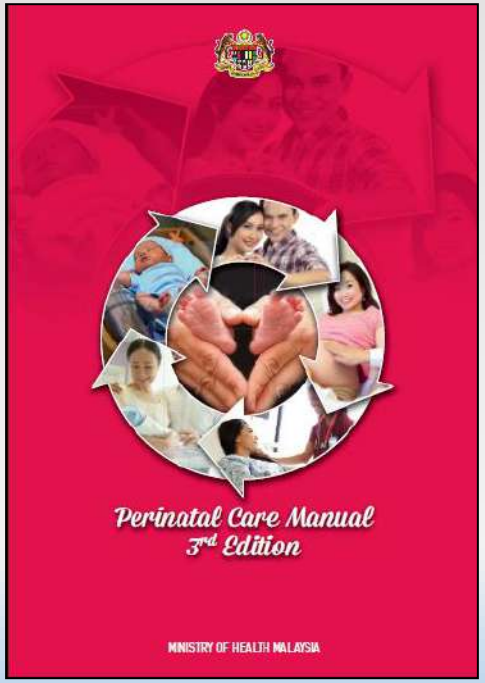
Maternal health materials are available on website ***Bahagian Pembangunan Kesihatan Keluarga*** **fh.moh.gov.my**











Lessons learnt

- Maternal deaths **will increase initially**
- Maternal deaths **can be reduced**!
- Higher risk of deaths in **mothers of high parity**
- Higher risk of deaths in **older mothers**
- **Audit** the implementation of the recommendations
- Most maternal deaths occur in the **postpartum period**
- **Access to care** must be unimpeded
- **Anonymised audit is key.** It should remain non-punitive and not focus on fault finding. Use neutral words such as remediable clinical factors rather than substandard care

A journey of a thousand miles begins with the first step

The first step often needs a push - The CEMD has provided that push

Thank you