

The Maternal Outcomes of Pregnant Women with Substance Abuse under Care of Comprehensive Child Development Service (CCDS) among 8 Hospital Authority Birthing Hospitals: A 5-year review

- Conducted by CCDS Midwives Working Group
- Presented by Susie Chow, Suet Yee, Associate Nurse Consultant, Queen Mary Hospital
- Hospital Authority Convention 2025



Outline



Introduction to CCDS

Roles of CCDS Midwives

Knowledge Gap

Objectives

Methodology

Results & Outcomes

Conclusion



Introduction to CCDS

-  Since 2005 policy address in phases, all districts in 2008
-  Aims at early identification and provision of timely support to children and families with special needs
-  An integrated community-based child and family service model
To address the developmental needs of young children (0 to 5 years)
-  Interdisciplinary and cross-sectorial collaboration among different providers through communication and collaboration
-  Maternal and Child Health Centres as a major platform



CCDS CROSS-SECTORIAL COLLABORATION

◆ Alignment of the delivery of health, social and education services

Non-governmental
Organizations (NGO)



Mother's Choice
母親的抉擇

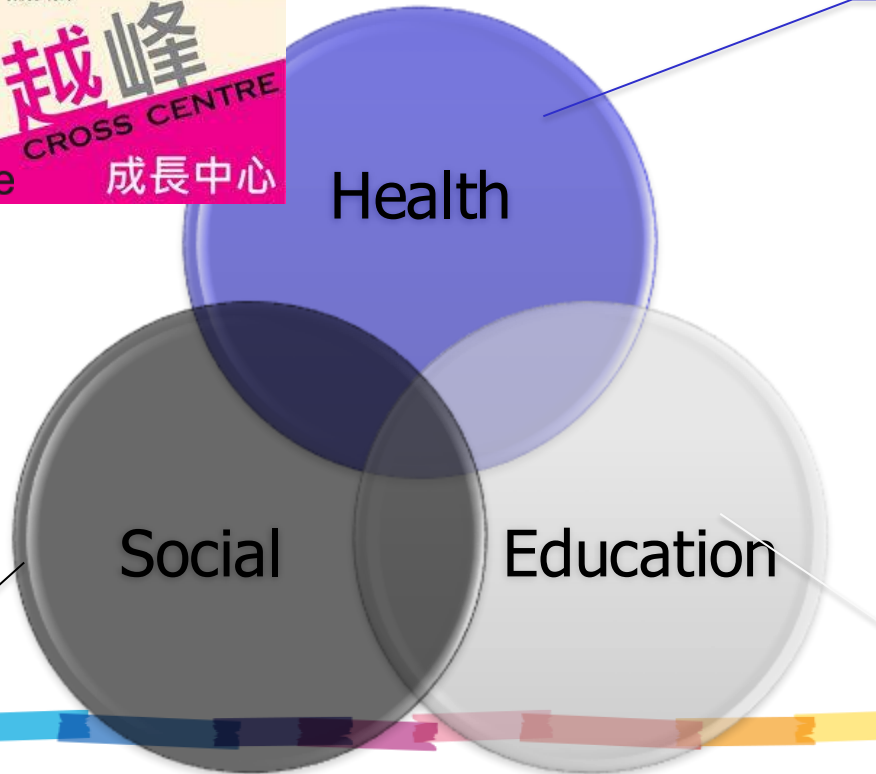


明愛青少年及社區服務
Caritas Youth and Community Service



社會福利署
Social Welfare Department

Integrated Family Service
Centres (IFSC)
Family and Child Protective
Services Unit (FCPSU)



醫院管理局
HOSPITAL
AUTHORITY



教育局
Education Bureau

Hong Kong West Cluster

Scope of Service

- At-risk pregnant women
- Mothers with postnatal depression
- Children & families with psychosocial needs
- Pre-primary children with physical, developmental & behavioral problems



Roles of CCDS Midwives

- To provide comprehensive maternity care for at-risk pregnant women
- From early pregnancy to early postnatal period



Teenage pregnancy

Mental health issues

Substance abuse

Others: Single mother with poor social support, domestic violence





Substance Abuse Services provided by CCDS Midwives – Antenatal Period

- ◆ Screening for Substance Abuse
 - Screen all pregnant women during their first antenatal visits
- ◆ Support for Abstinence
 - Provide appropriate counselling to help women achieve abstinence
 - Reduce risk of relapse through continuous support
- ◆ Referral and Collaboration
 - Refer women to community resources
 - Collaborate with psychiatric services for comprehensive care

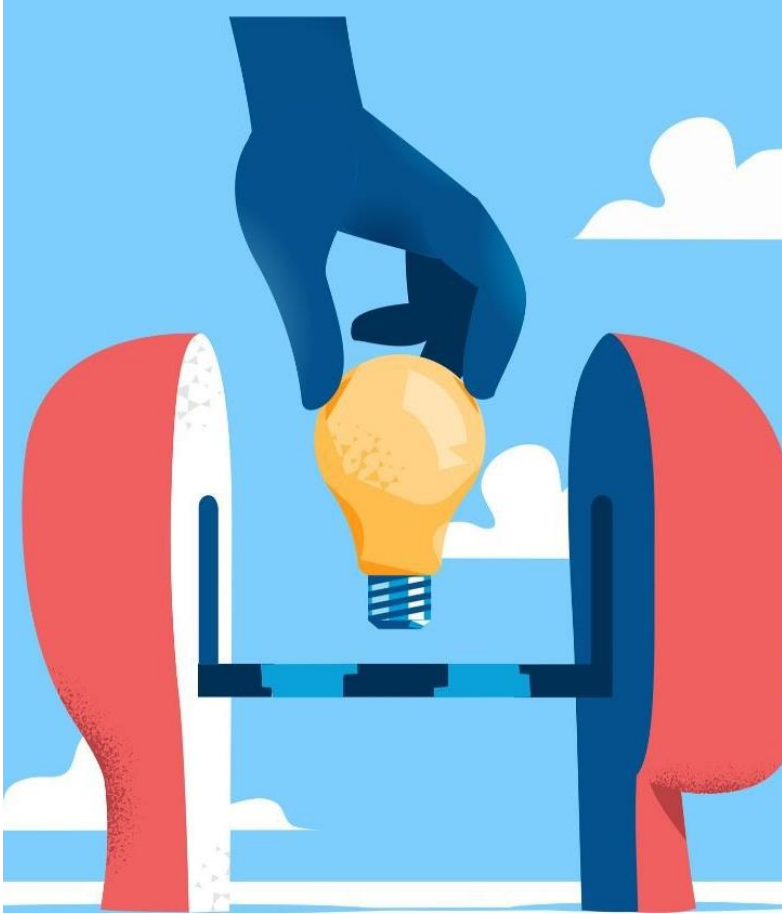
Hong Kong West Cluster

Substance Abuse Services provided by CCDS Midwives – Postnatal Period

- Visit women in postnatal ward to screen for and educate about postnatal depression
- Coordinate subsequent follow-ups for mothers with community resources to prevent relapse
- Arrange subsequent checkups for babies at MCHCs for continual monitoring and interventions after discharge from hospital



Knowledge Gap



- No previous studies have been conducted about this vulnerable group of pregnant women and their babies in Hong Kong
- First territory-wide review of this group of women under the care of CCDS in 8 HA birthing hospitals
- To provide a better understanding of this group of women and helps inform future CCDS maternity service development



Objectives

- ◆ Review Demographic Characteristics of pregnant women with substance abuse under CCDS care
- ◆ Identify Risk Factors
- ◆ Explore Commonly Used Substances
- ◆ Review Maternal Pregnancy Outcomes
- ◆ Review Neonatal Outcomes
 - Described in a separate report



Methodology



- ◆ Study Design
 - ◆ Retrospective cohort study
 - ◆ Hong Kong residents
 - ◆ Delivered at 8 HA birthing hospitals
- ◆ Study Period
 - ◆ Between 2017 and 2021
- ◆ Data Collection
 - ◆ Retrieved from patients' clinical records
 - ◆ Initial assessment forms completed at the first interview
 - ◆ Postnatal assessment form completed after delivery

Results

- ◆ Total 1226 pregnancies were reviewed
- ◆ 8 twins pregnancy were excluded
- ◆ 1218 cases in the final analysis



Results

◆ Overall Incidence

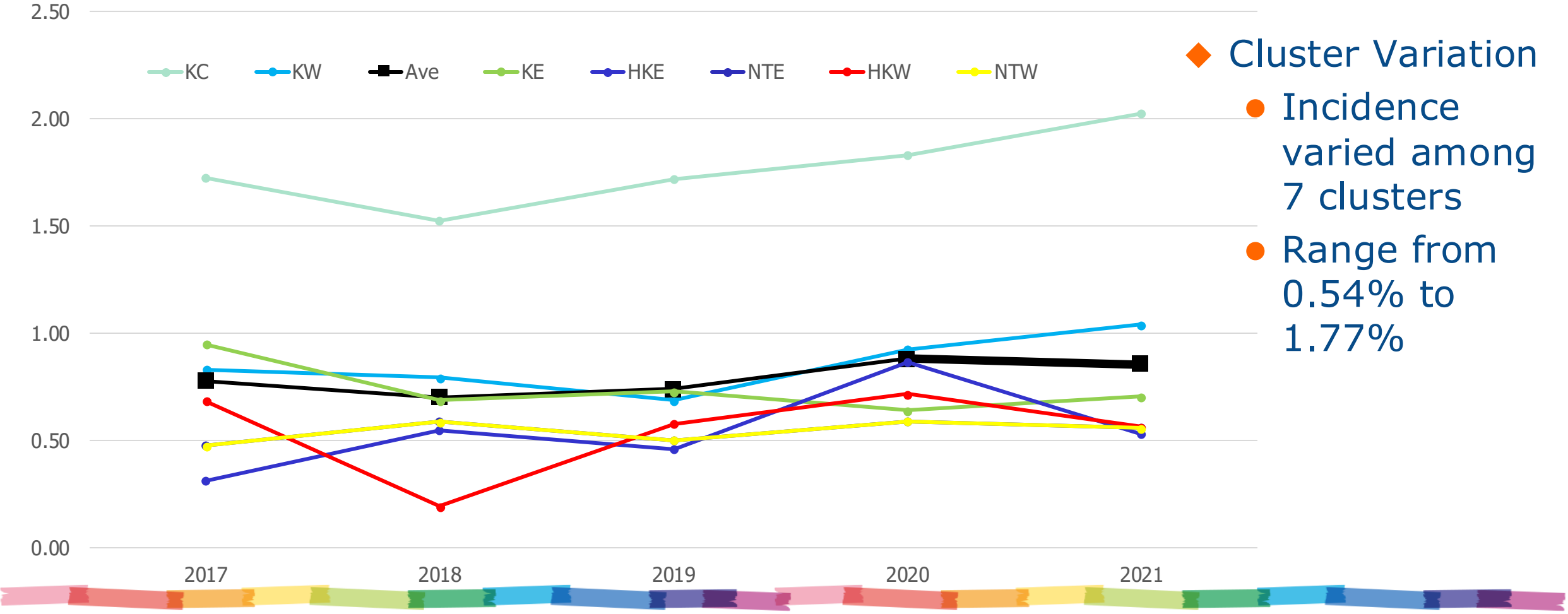
- Remained stable at around 0.78% over 5 years

Cluster Year	HKW	HKE	KE	KW	KC	NTE	NTW	Total	Total deliveries	Incidence (%)
2017	26	8	39	38	91	32	66	300	37422	0.80
2018	7	13	25	33	72	38	70	258	35230	0.73
2019	21	11	25	28	78	30	61	254	33897	0.75
2020	20	15	18	29	65	27	38	212	26632	0.73
2021	15	8	14	29	58	23	47	194	23250	0.83



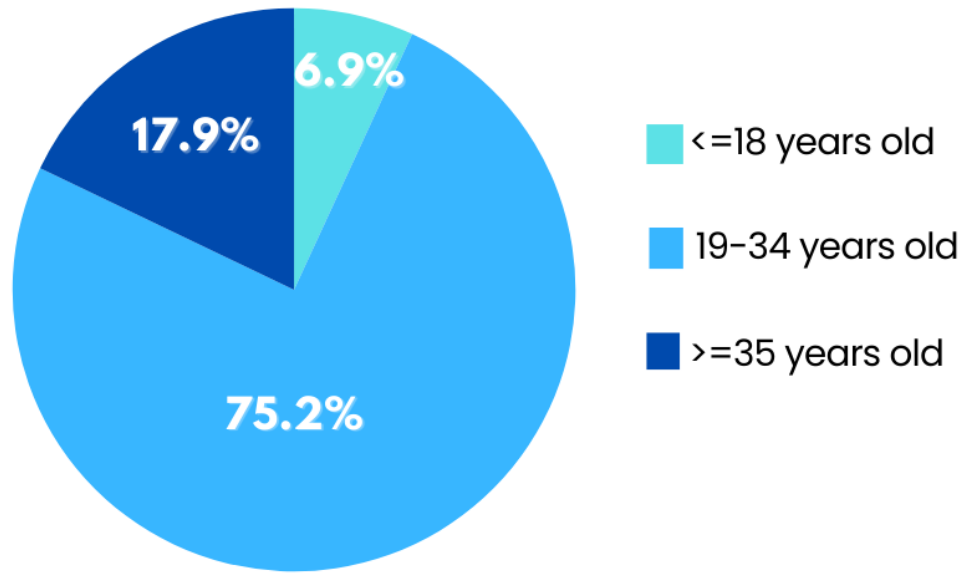
Results

Incidence of pregnant women with substance abuse in Hong Kong by hospital clusters (%)

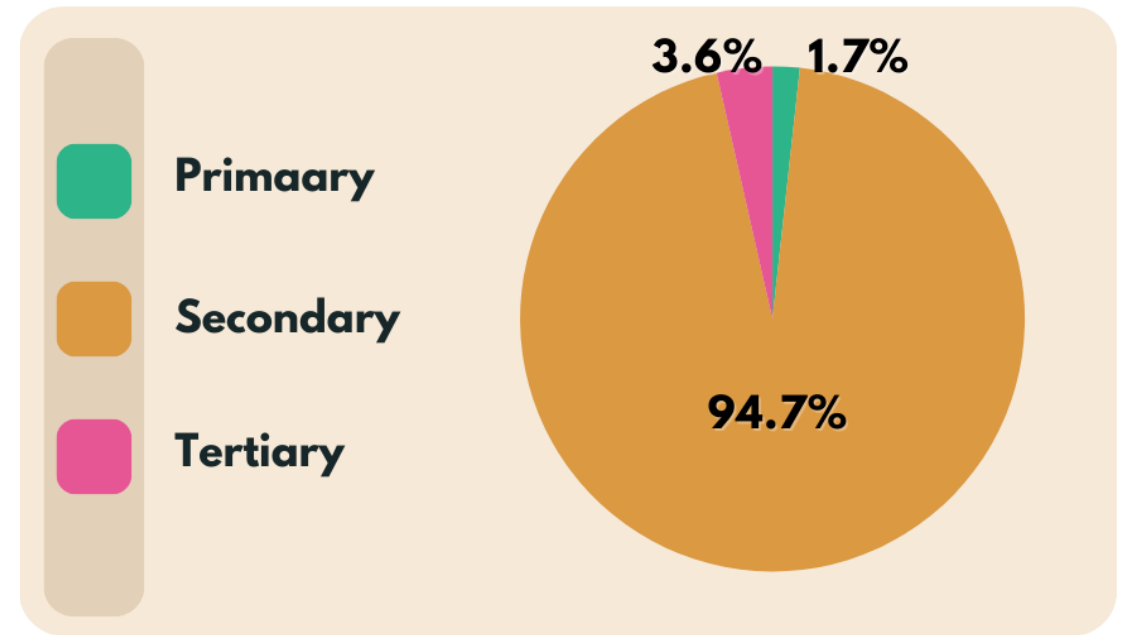


Demographics: Age & Education

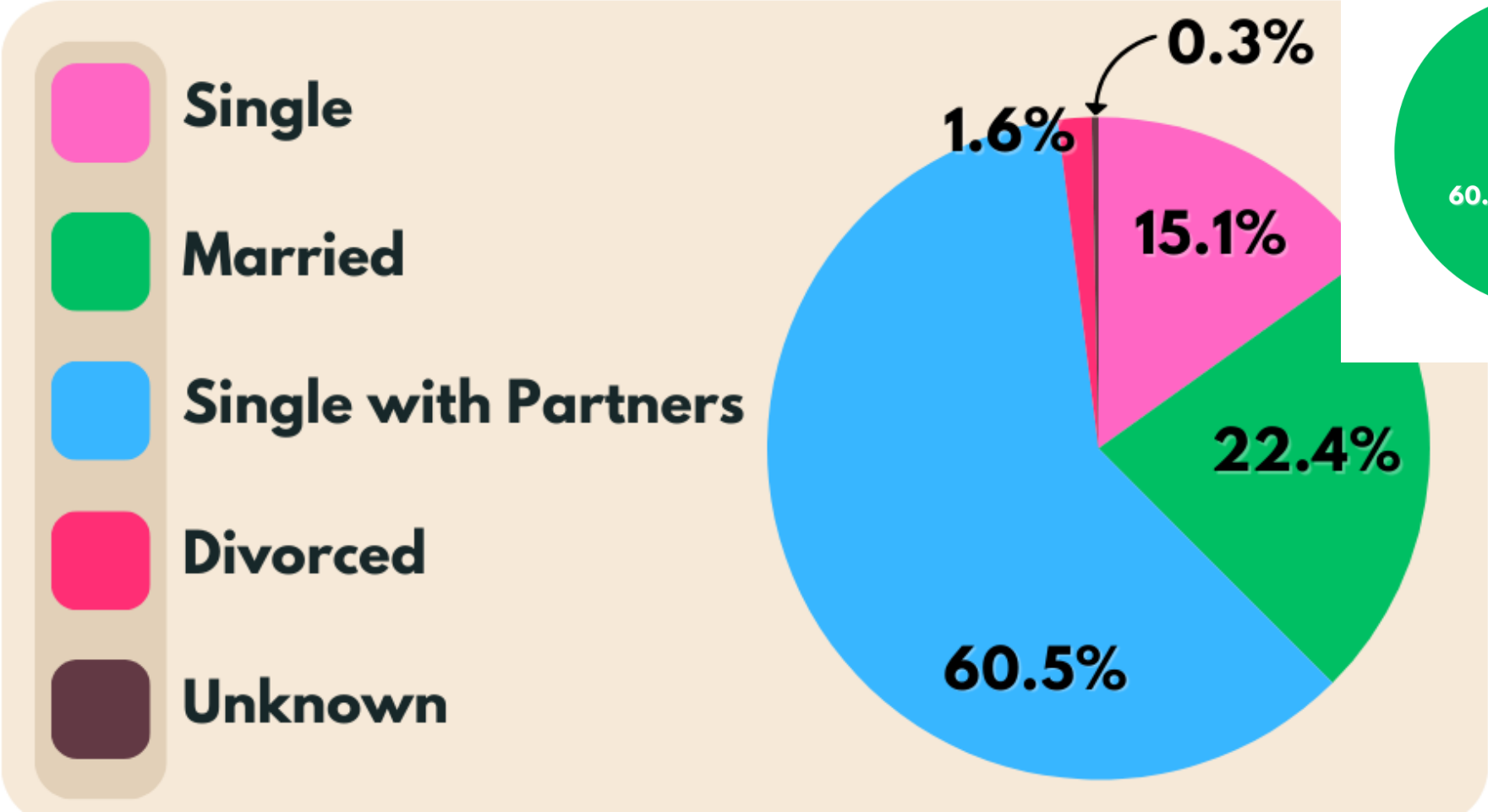
AGE



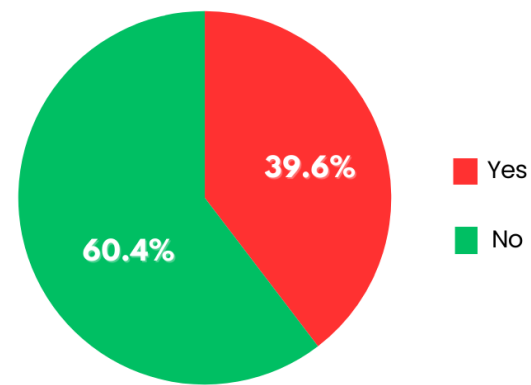
Education Level



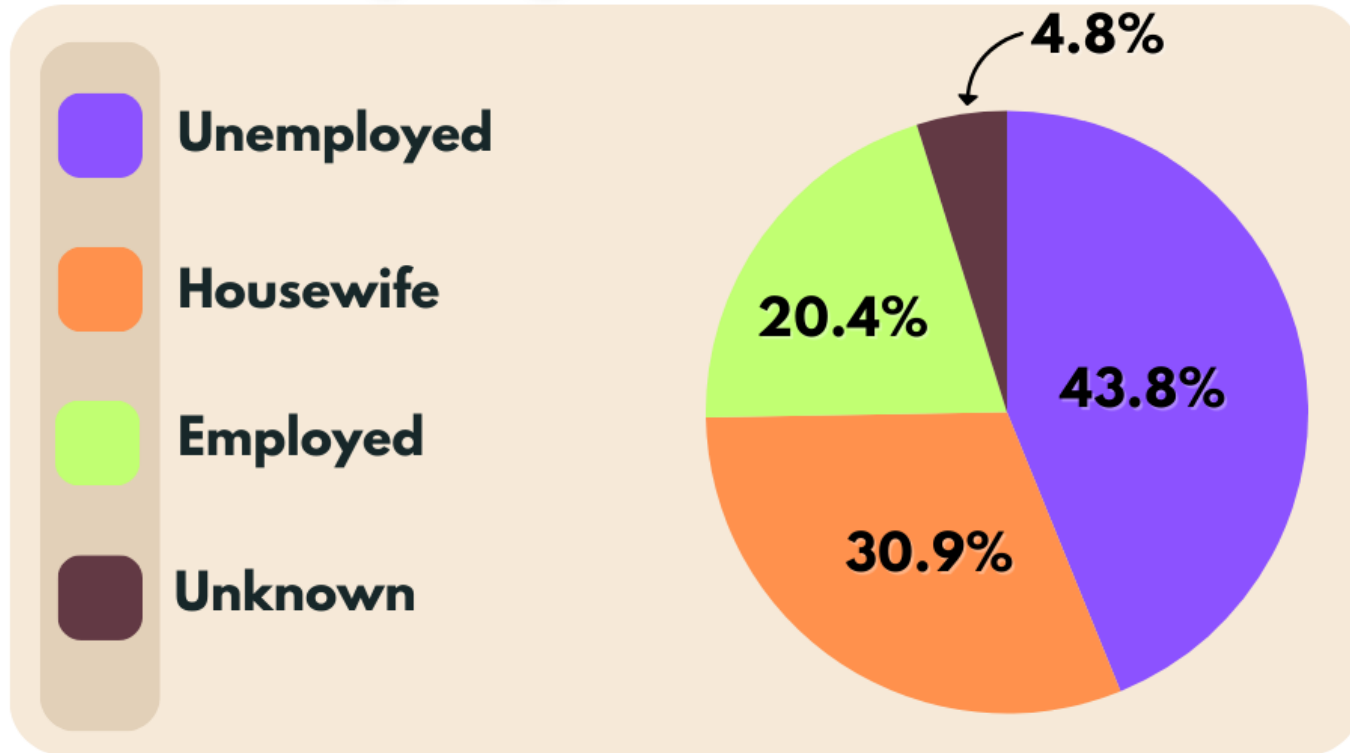
Marital Status



PARTNER IS SUBSTANCE ABUSER?



Employment Status



◆ Use of CSSA: 21.5% (262/1218)



醫院管理局
HOSPITAL
AUTHORITY

Hong Kong West

Social Habits



- ◆ Smoker vs Non-smoker
 - 84.8% smokers (1033 out of 1218)
 - 15.2% non-smokers (185 out of 1218)
- ◆ Drinker vs Non-drinker
 - 15.2% drinkers (185 out of 1218)
 - 84.8% non-drinkers (1033 out of 1218)

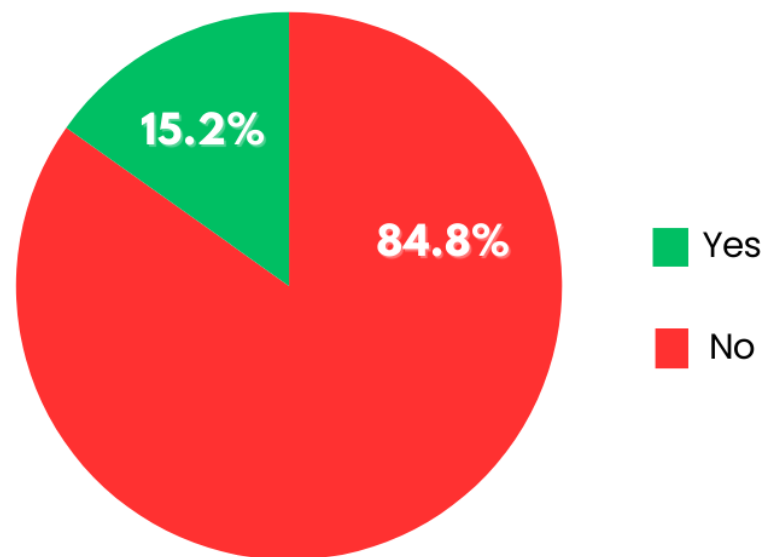


Pregnancy & Parity

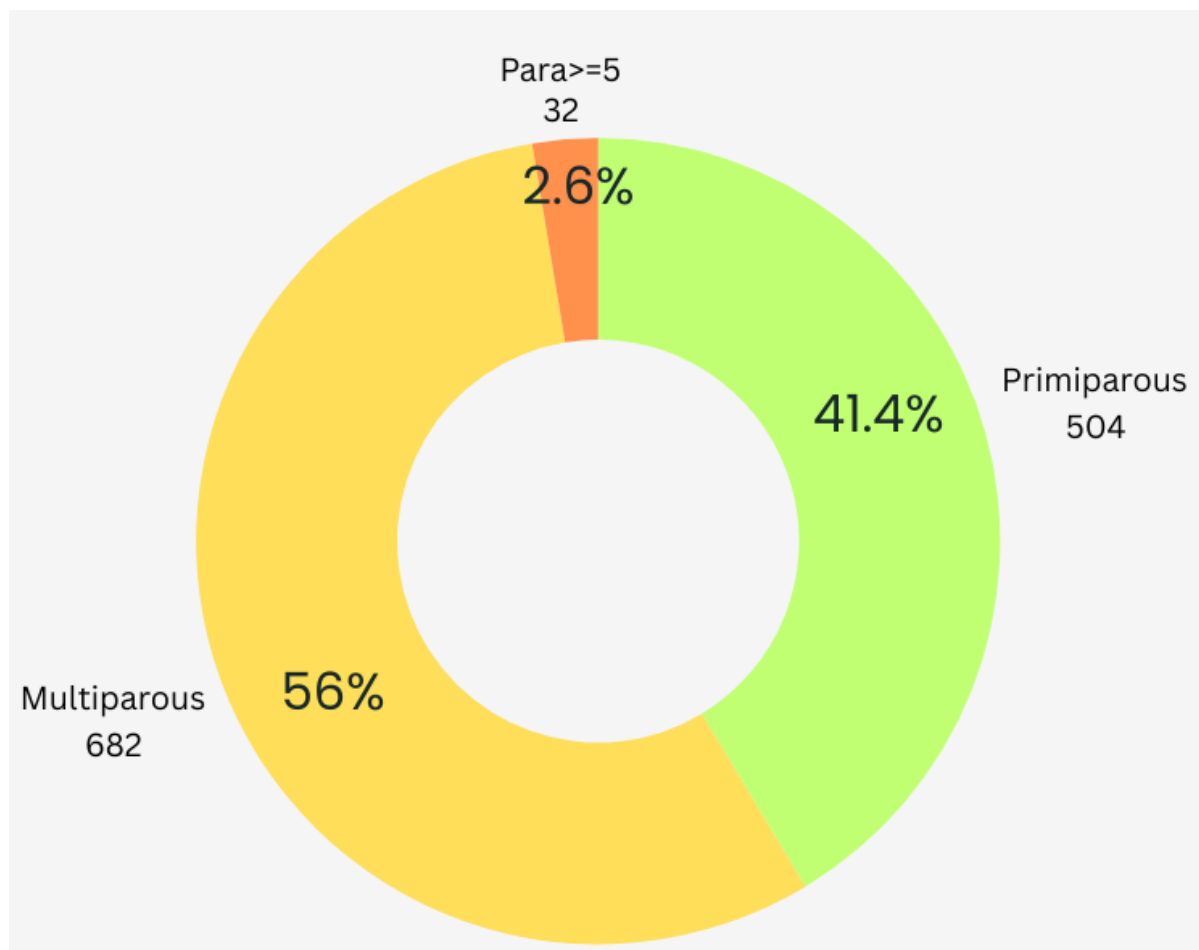


- ◆ Planned vs Unplanned Pregnancy
 - High incidence of unplanned pregnancy indicates need for accessible family planning services

PLANNED PREGNANCY?



Pregnancy & Parity



◆ Parity Distribution

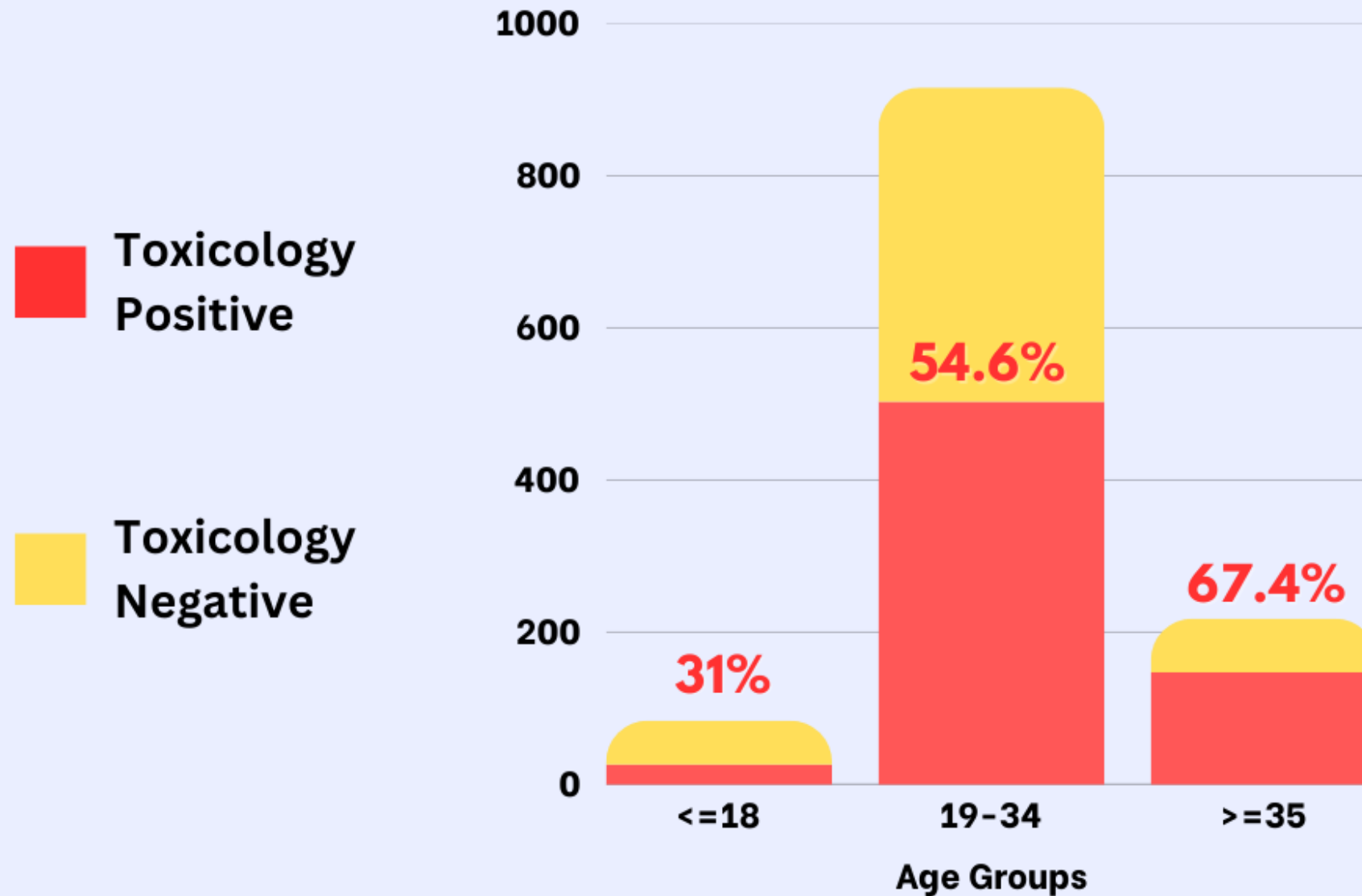
- Primiparous: 41.4% (504/1218)
- Multiparous: 56.0% (682/1218)
- Grand Multiparous (Para >= 5): 2.6% (32/1218)

Maternal Urine Toxicology

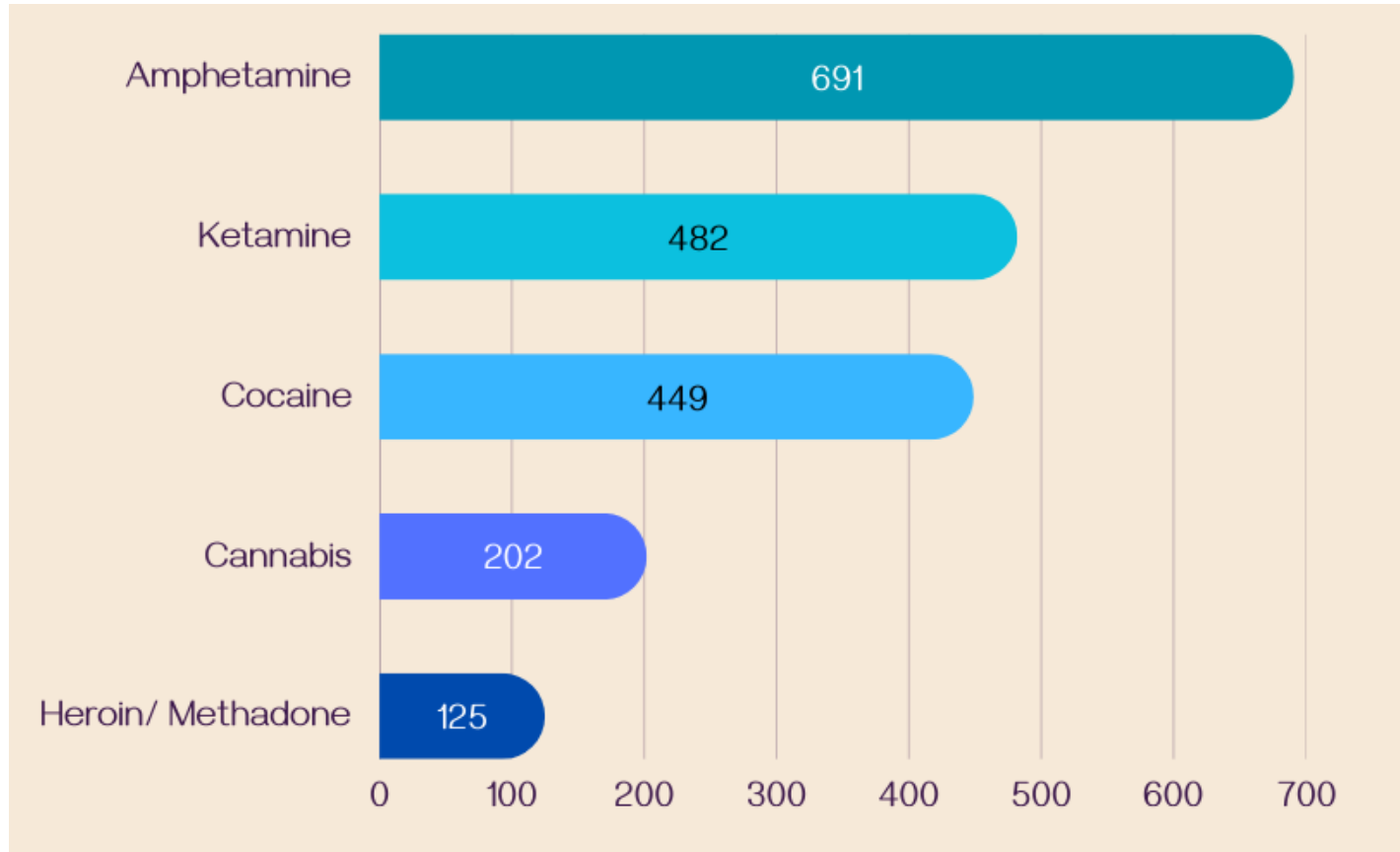
- ◆ Urine tests for toxicology
 - Voluntary for women under CCDS care
- ◆ Test results
 - Positive: 35.6% (434/1218)
 - Negative: 46.6% (568/1218)
 - Not done/Not available: 17.7% (216/1218)



Age Group and Toxicology Results



Commonly Used Substances

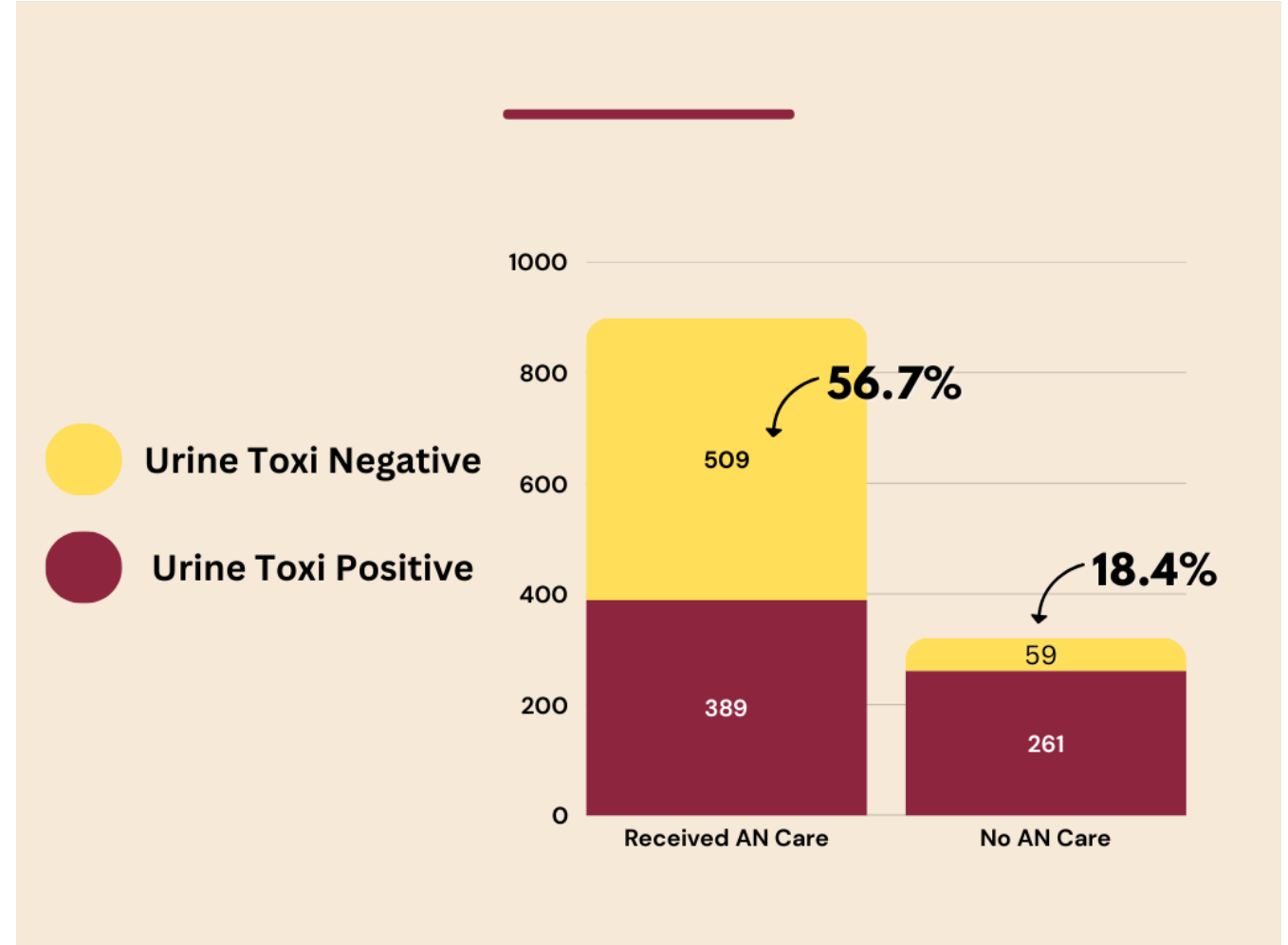


- ◆ Multiple Substance Usage
 - 45.6% of women used more than one substance (556 out of 1218)

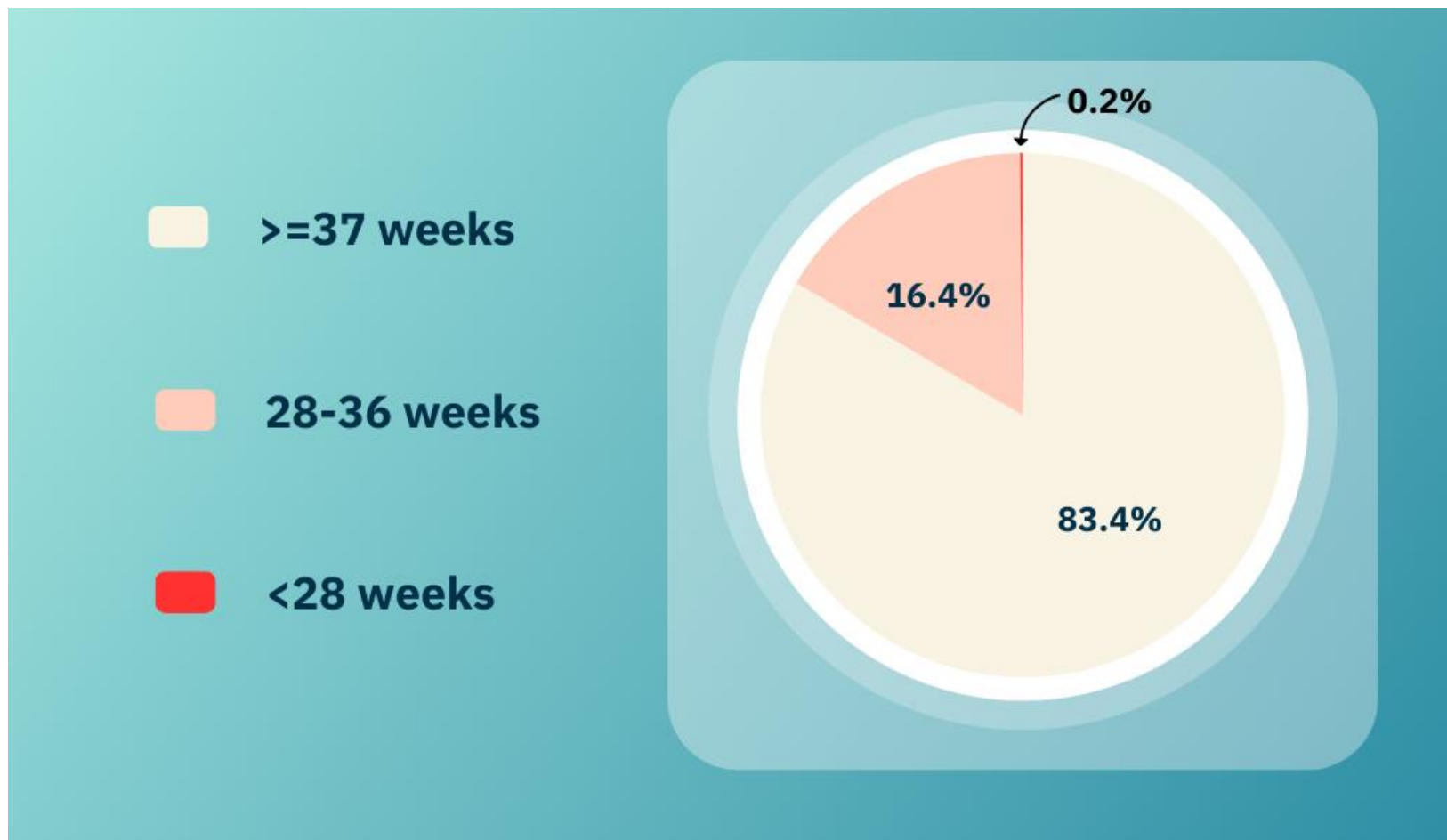


Antenatal Care and Toxicology Results

- ◆ Comparison of Antenatal Care Reception
 - 73.7% received antenatal care
 - 26.2% did not receive antenatal care
- ◆ Urine Toxicology Results
 - Women with antenatal care had higher negative results
 - 56.7% VS 18.4% ($p < 0.001$)
- ◆ Receiving CCDS Service appeared to be beneficial in supporting pregnant women to remain abstinence



Pregnancy Outcomes: Gestation

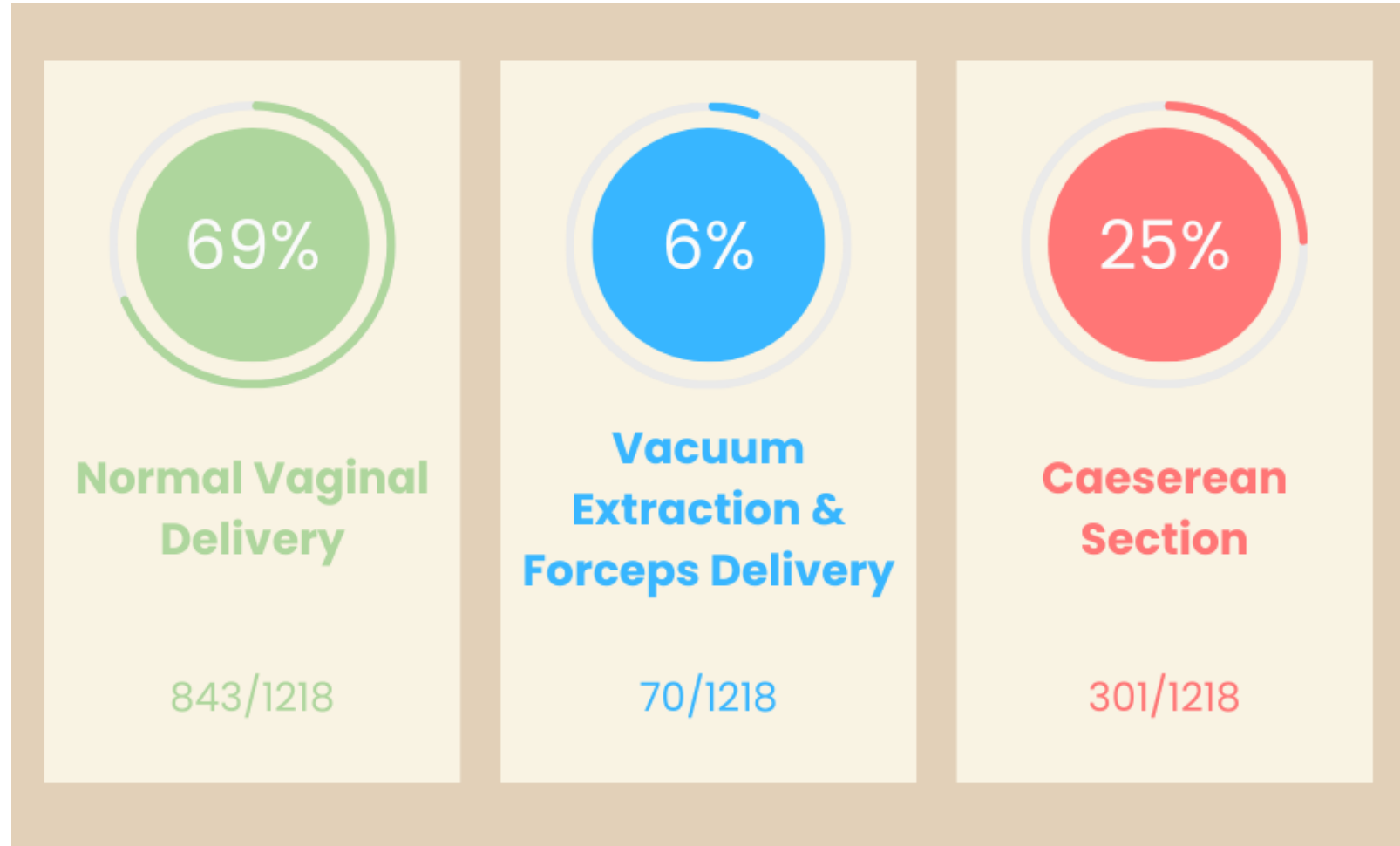


- Full-term pregnancies ≥ 37 weeks: 1016/1218; 83.4%
- Preterm pregnancies 28-36 weeks: 200/1218; 16.4%
- Extremely preterm pregnancies <28 weeks: 2/1218; 0.2%



Mode of Delivery

- ◆ Assisted Breech Delivery
 - 4/1218; 0.3%
- ◆ 53 women (4.4%) delivered before or on arrival to hospital



Conclusion



- ◆ High unemployment rate and low utilization of CSSA might further put this group of mother & babies in social disadvantages, apart from physical health.
- ◆ High smoking rate indicated need for smoking cessation service
- ◆ High incidence of unplanned pregnancy highlights the need for accessible contraception service,
- ◆ Particularly after birth of first baby, since more than half of women in the study was multiparous
- ◆ Association between receiving CCDS service & negative maternal urine toxicology result indicates that CCDS service supports women to achieve abstinence during pregnancy

Acknowledgement

- ◆ All CCDS midwives from QMH, PYNEH, QEH, KWH, TMH, PWH, PMH, UCH
- ◆ All midwives worked for the study
- ◆ Ms Ho Lai Fong as our consultant
- ◆ All Midwives Consultants
- ◆ All O&G DOMs

