

Retrospective evaluation of the efficiency of booking elective caesarean sections in a large Australian metropolitan maternity unit

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Introduction:

Elective caesarean sections (CS) are booked throughout the year in all maternity units. However, not all cases are birthed on these lists. Some cases birth out of hours and other require other lists to accommodate the overflow from these operating lists.

A retrospective analysis was performed looking at the elective CS lists and demand based on Birthing Operations System (BOS).

Methods:

The retrospective analysis at each site (AH and BH) involved the following steps:

- Identify all CS coded cases from BOS database for each site.
- Identify those "Elective" and "no labour" CS cases that occur during 08:00 and 18:00 (Normal theatre time).
- Identify those "Elective" cases that occur outside theatre time (18:00 - 08:00)
- Calculate the total number of elective cases that should have been required for each financial year
- Calculate peak months of birth at each site

Results (Table 1):

Between 224 and 262 CS lists are required in each financial year (2014/5 to date) to facilitate all the elective CS (no labour) that occurred within working hours at both sites

This equates to between 4 and 5 elective CS lists per week (224/52 to 262/52).

This number should therefore, be sufficient for the scheduled 5 lists per fortnight per site:

$$5(\text{lists}) \times 2(\text{sites}) \times 26(\text{fortnights per year}) = 260 \text{ lists per year.}$$

Potential solutions:

Create a yearly template of elective CS lists (5 lists per fortnight per site) that takes into account Public Holidays and incorporate replacement lists.

PLUS:

Provide an additional fixed CS/Gynae list (one per site) that is filled with appropriate cases as required.

Acknowledgement: Pauline Hamilton

Conclusions:

CS do not occur uniformly throughout the year. Public Holidays on Mondays affect numbers of lists / yr There are peak months of births that are not predictable (Figs. 1 and 2.) Therefore, the number of elective CS lists required per month will vary.

	No. Lists (AH)	No. Lists (BH)	No. Lists (EH)
2014 /5	124	100	224
2015 /6	120	122	242
2016 /7	131	131	262
2017 /8*	90	96	186

Table 1: No. Lists required across EH
*Incomplete financial year 2017/8

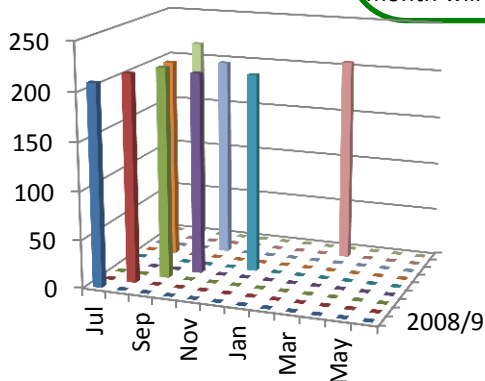


Fig.1 Peak Month of births 2008-18 (Site AH)

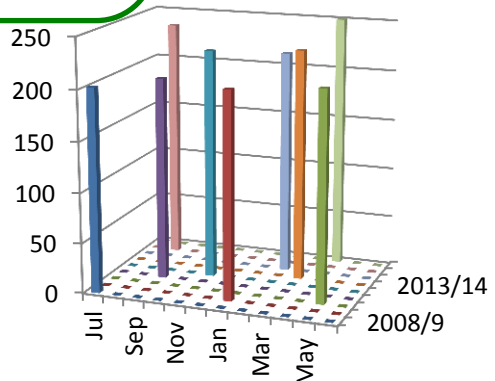


Fig.2 Peak Month of births 2008-18 (Site BH)