Reducing omitted doses of medication on the Mental Healthcare of Older Peoples' (MHCOP) Wards

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Background

- Our study in ELFT[1] found that omitted doses of medication account for almost 40% of all administration errors.

- In England, between 2006-2009, as a result of omitted doses[2]:
  - 27 deaths
  - 68 severe harms

1: Cottney A & Innes J. Medication-administration errors in an urban mental health hospital: a direct observation study. Int J Ment Health Nurs. 2015 Feb;24(1):65-74.
2: NPSA Rapid Response Alert, 'Reducing harm from omitted and delayed medicines in hospital', Feb 2010. NPSA/2010/RRR009.

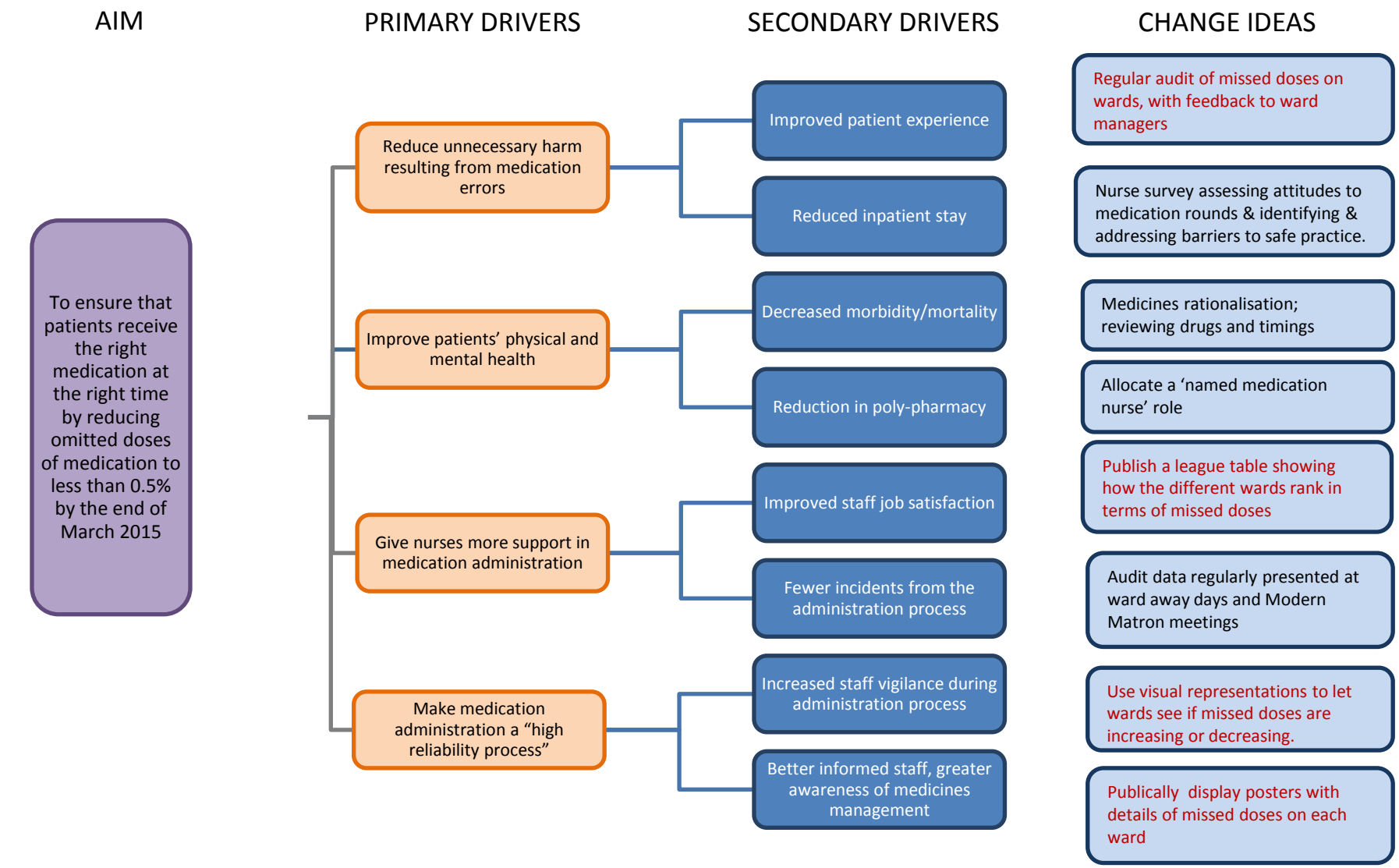
Background

- Baseline investigation on 6 MHCOP wards:
  - Missed dose rate = 1.07%
  - Equates to approx. 2900 missed doses a year

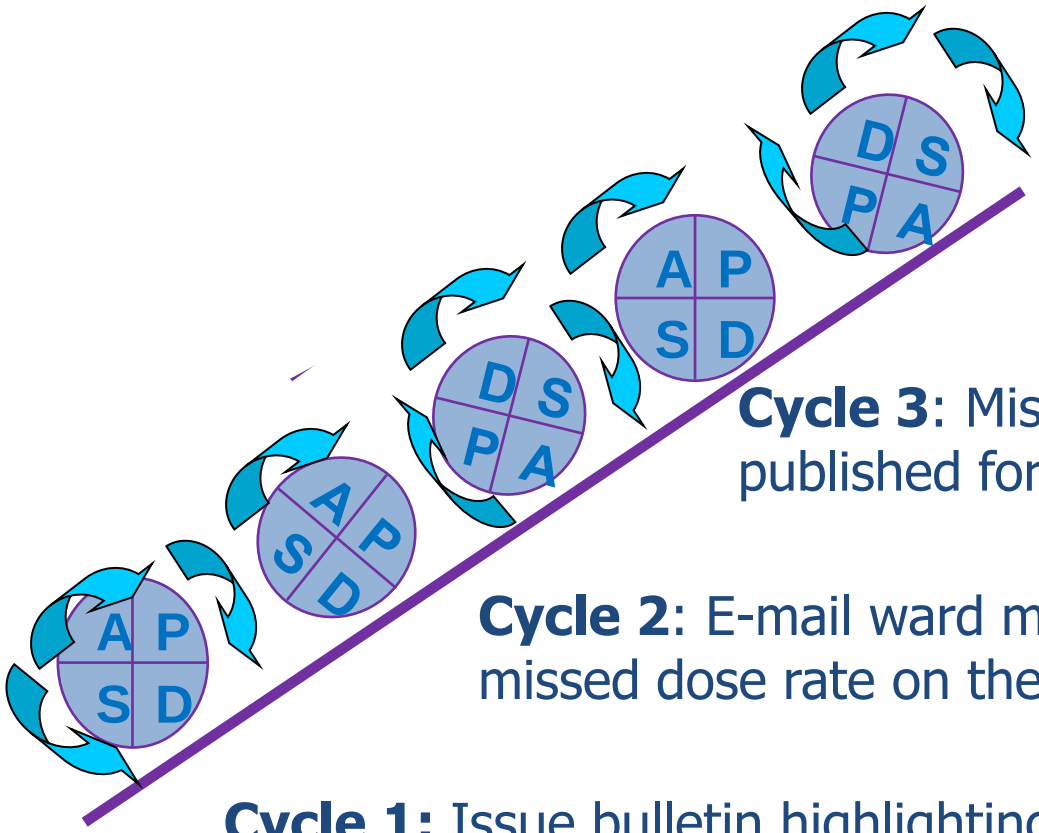
- Project aim:
  - To reduce omitted doses of medication to less than 0.5% of total doses due by the end of March 2015

Driver diagram

Reducing omitted doses of medication on the MHCOP wards



Sequence of PDSA's



Cycle 4: Individualised ward poster published fortnightly.

Cycle 3: Missed dose league table published fortnightly.

Cycle 2: E-mail ward managers informing of the missed dose rate on their wards and asking for action

Cycle 1: Issue bulletin highlighting missed doses will be monitored

Example of league table

Missed Doses of Medication on MHCOP Wards

Date of publication: 19th November (Issue 8)

Time covered by data: 2 weeks

Ward		No. doses due	No. doses not signed for	% doses not signed for
1	Cedar Lodge	1292	0	0.00%
2	Columbia	2327	1	0.04%
3	Ivory	2058	2	0.10%
4	Larch Lodge	1172	2	0.17%
5	Thames House	1601	3	0.19%
6	Leadenhall	2768	19	0.69%
Total		**11,218**	**27**	**0.24%**

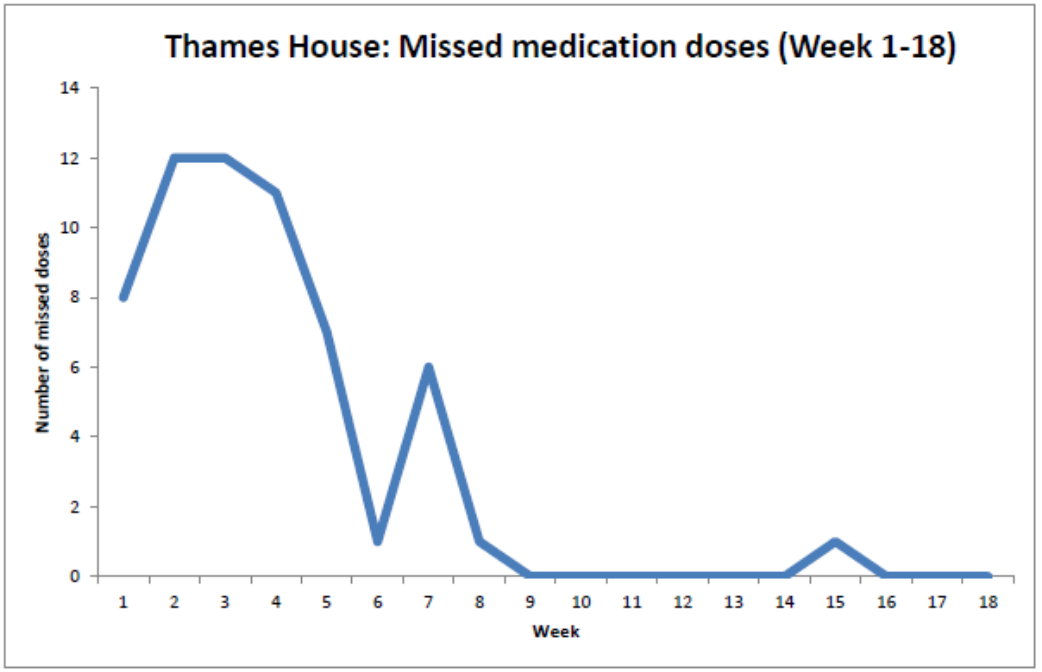
Example of ward poster

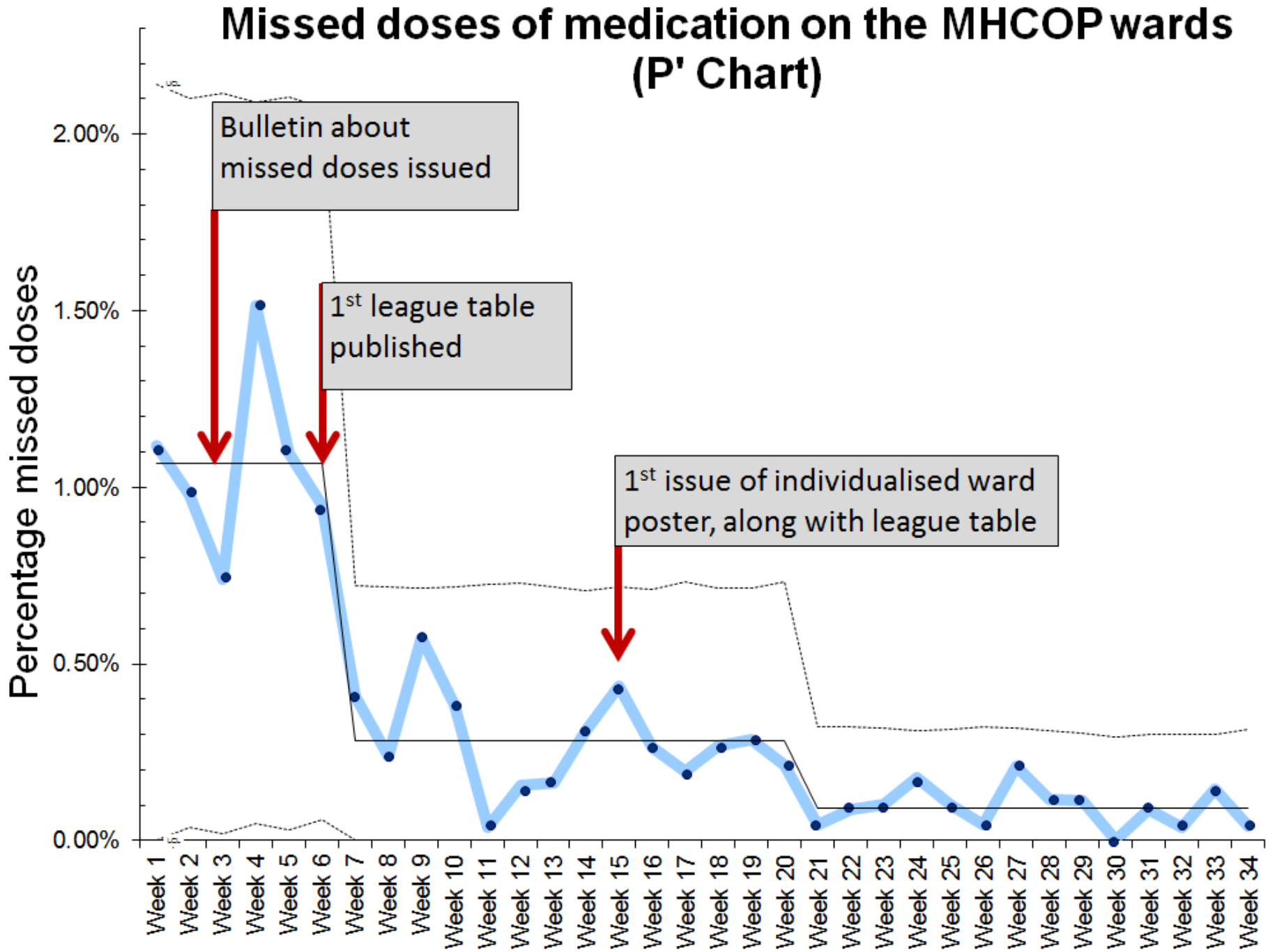
Thames House: Missed doses summary

It has now been

3 weeks

since a dose of medication was missed on Thames House Ward




Missed doses of medication on the MHCOP wards
(P' Chart)
Percentage missed doses
2.00%
1.50%
1.00%
0.50%
0.00%
Bulletin about missed doses issued
1st league table published
1st issue of individualised ward poster, along with league table
Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Week 13
Week 14
Week 15
Week 16
Week 17
Week 18
Week 19
Week 20
Week 21
Week 22
Week 23
Week 24
Week 25
Week 26
Week 27
Week 28
Week 29
Week 30
Week 31
Week 32
Week 33
Week 34

Data

- Before the project:
  - Missed dose rate during 6-weeks baseline monitoring:
    - **1.07% (2,871 missed doses per year)**
- After the project:
  - During the past 6 weeks:
    - **0.06% (154 missed doses per year)**
  - **2717 missed doses prevented**

Financial data

- Estimate of cost-saving:
  - 2717 medication errors will result in an average of 26 adverse drug events[1]
  - One adverse drug event is estimated to cost £1,477[2]
  - Cost-saving from avoiding 26 adverse drug events per year on 6 MHCOP wards: £38,402

1: Bates DW *et al*. Relationship between medication errors and adverse drug events. J Gen Intern Med. 1995 Apr;10(4):199-205.
2: Senst BL *et al*. Practical approach to determining costs and frequency of adverse drug events in a health care network. Am J Health Syst Pharm. 2001 Jun 15;58(12):1126-32

Learning

- Raising awareness of a problem can lead to improvement
- Allow teams to develop their own strategies for action
- Healthy competition can help drive improvement
- We should reward good practice rather than punishing bad
- Visual display of information can be very effective

Future plans

- Plan to test on other inpatient wards
- Plan to test further change ideas:
  - Monthly league tables rather than fortnightly
  - Link with psychology QI project:
    - Mindfulness training for staff giving medication