

# MONITORING ABF QUALITY THROUGH ROUTINE CLINICAL CODING AUDIT PROGRAMS

Department of Health and Human Services

Victoria

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# Overview: Victorian Audits of Admitted Patient Data

The audit program validates administrative and clinical coding data that is used in the acute admitted funding model via a 'recoding' mechanism

- Background
- Methodology
  - Sampling, Auditors, Recoding, Key indicators, Reporting
- Results and comments

# Background

1993: Casemix funding model for acute inpatients introduced

- Considered important to monitor the impact on the system

1993/1994 & 1995/1996: 'Proof of concept' audits conducted

- Development of methodology that stands today

1998/1999: First three year program begins

- 3 x 3 year programs completed
- 4<sup>th</sup> program underway

External contractors used to manage the audits

# Background

Focus is on opportunities for improvement (not punitive)

- Emphasis on improving maintaining data quality

Individual hospital issues are managed by the performance unit

State-wide issues are managed by various mechanisms within the department:

- Victorian coding committee
- Funding model team

# Methodology – sampling

Two stage cluster sample:

1. Random selection of hospitals that report acute episodes
2. Random selection of acute episodes
  - 1% - 2% of acute episodes audited – approx 12 000 episodes per year
  - Each hospital selected at least once; smaller hospitals once only
  - Maximum and minimum sample sizes mandated
  - 95% confidence interval stipulated
  - Contractors responsible for statistical methods used to achieve requirements

# Methodology – auditors

## Audit team selected by contractor

- Department mandates minimum standard
  - Completion of clinical coding auditing short course (LaTrobe University)
  - In house examination and training by contractor

## Victorian clinical coders/HIMs only

- Familiar with audit methodology and funding model

## Team large enough to:

- avoid conflict of interest issues; provide mentoring and succession planning; grow the auditing workforce

# Methodology – recoding

Web based software used for data collection, statistical analysis and management of audit

- Demographic and administrative data validated
  - Range of administrative items
  - Compliance with Victorian Hospital Admission Policy
- Blind recoding of episode of care
  - ICD-10-AM/ACHI clinical codes
  - Condition onset flags

# Methodology – support processes

## Daily meeting with hospital representative

- Discuss DRG changes
- Other significant findings

## Dispute resolution

- Second auditor adjudication when agreement can't be reached
  - Blind recoding
  - Contractor management around the issue in dispute

## Exit meeting

- Discuss all findings: DRG change, funding impact, other issues



# Methodology – key indicators

## Rate of DRG change

- Expressed as percentage of sample
- 95% Confidence interval provided
- Type and reason for change (e.g. wrong Pdx; ACS not followed)

## Funding impact

- Expressed as:
  - percentage of sample
  - net WIES variance (actual and percentage of sample WIES)
  - gross WIES variance (actual and percentage of sample WIES)
  - reasons for change (e.g. DRG change, incorrect count of CMV)

# Methodology – other indicators

## Clinical coding changes

- Principal diagnosis
  - *Incorrect condition selected*
  - *Incorrect code assigned (correct condition)*
- Additional diagnoses and Procedure codes
  - *Incorrect code*
  - *Unjustified code*
  - *Missing code*

# Methodology – other indicators

## Demographic/administrative changes

- 26 items in total
  - Dates/times
  - Sex
  - Admission Weight
  - Separation Mode
  - Hours of CMV
  - Qualification status (newborns)
  - Leave days
  - Acute care certificate
  - Criteria for admission

# Methodology – reporting

## Individual hospital report

- Approximate two month turnaround
- Benchmarking information included in report
- Recommendations require a management response from hospital
- Final to hospital with department acceptance of response
- Monitoring and follow up of hospital implementation of recommendations

## Annual state-wide report and end of program report to department

- Aggregation of results
- Recommendations for the department

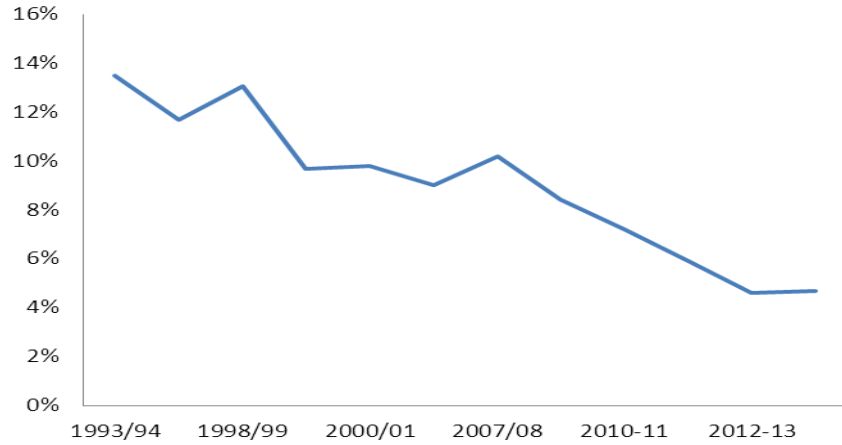
# Results –weighting

## State-wide results are weighted/estimated

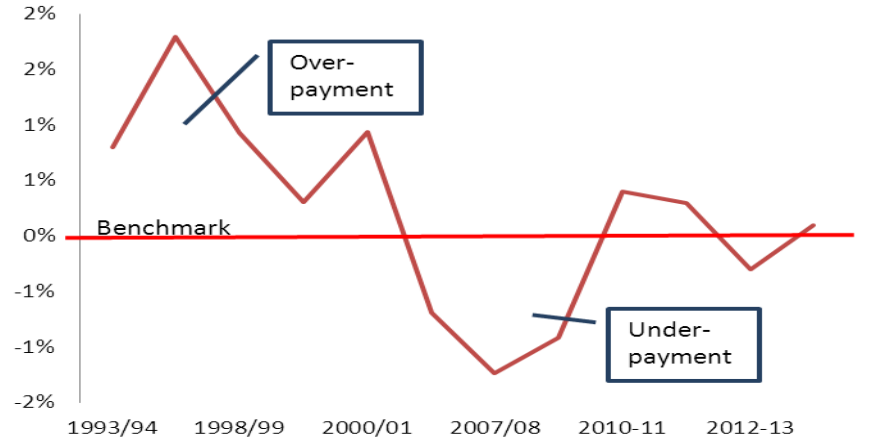
- Department stipulates quality of result estimate
  - Methodology is responsibility of contractor
  - Contractor required to employ statistician
- An example:
  - Two stage weighting process, by:
    - » First weighting the results for all sampled campuses up to their total episodes or total WIES values, to obtain each stratum-wide (peer group) error rate estimate, and then
    - » Weighting these up to their corresponding stratum total episodes or total WIES scores, to obtain the corresponding overall population error rate estimate.

# Results – DRG changes and funding impacts

## Rate of DRG Change



## Impact on Funding: WIES change



# Results – clinical coding

Error categories differed between programs

Denominators used to calculate rates also differed

- Trends over time therefore not available

2013-2014

- Episodes with a coding change = 38%
- Principal diagnosis errors = 9% of sample
- Additional diagnoses errors = 18% of audit additional diagnoses
- Procedure code errors = 8% of audit procedure codes

# Condition onset flag

## Results 2013-14

Results		Health Service assigned prefix				Total matched prefixes	Total matched codes
		P Primary	C Complication	A Associated	M Morphology		
Auditor assigned prefix	P	98.1% (26766/27294)	0.9% (255/27294)	1.0% (272/27294)	0.0% (1/27294)	26,766	27,294
	C	10.3% (449/4347)	89.3% (3881/4347)	0.4% (17/4347)	0.0% (0/4347)	3,881	4,347
	A	13.8% (678/4916)	0.1% (4/4916)	86.1% (4234/4916)	0.0% (0/4916)	4,234	4,916
	M	2.1% (26/1225)	0.0% (0/1225)	0.0% (0/1225)	97.9% (1199/1225)	1,199	1,225
<b>Total codes with a matched prefix</b>						<b>36,080</b>	<b>37,784</b>
<b>Total codes with a matched prefix %</b>						<b>95.5%</b>	



# Benefits

## Longstanding program with established methodology

- Encourages internal auditing practices and compliance with coding standards.
- Supports workforce development
- Increases our confidence in the quality of coded data
- Provides an environment for development of other audit programs

## Provides a free external audit to hospitals regularly

- Increases hospital confidence in data quality

# Limitations

## Discontinuity between contractors may impact on consistency:

- in application of statistical methods used to select hospitals for audit
- in sample sizes
- in weighting the overall result.

## Lack of formal qualifications for auditors

- training on the job
- additional work for contractors
- assumptions that a good coder makes a good auditor

# Questions?

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