

Australasian Maternity Outcomes Surveillance System 'AMOSS'

Working together to improve the
Safety and Quality of Maternity Care in
Australasia

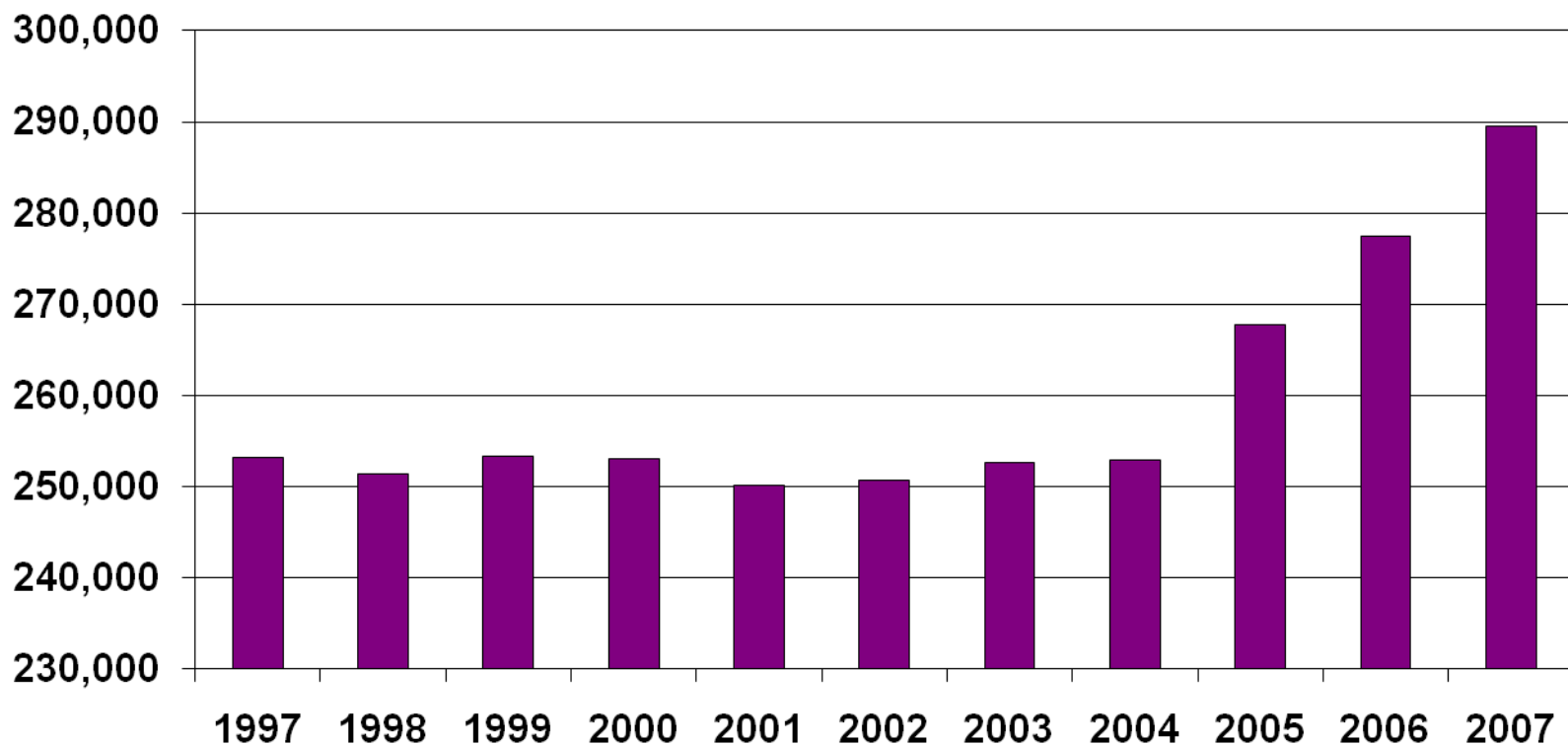


AMOSS

- Changing obstetric profile: Australia & NZ
- Background to AMOSS
- Aims of AMOSS
- The AMOSS system: how it works
- AMOSS conditions
- Partnerships
- Progress report and achievements

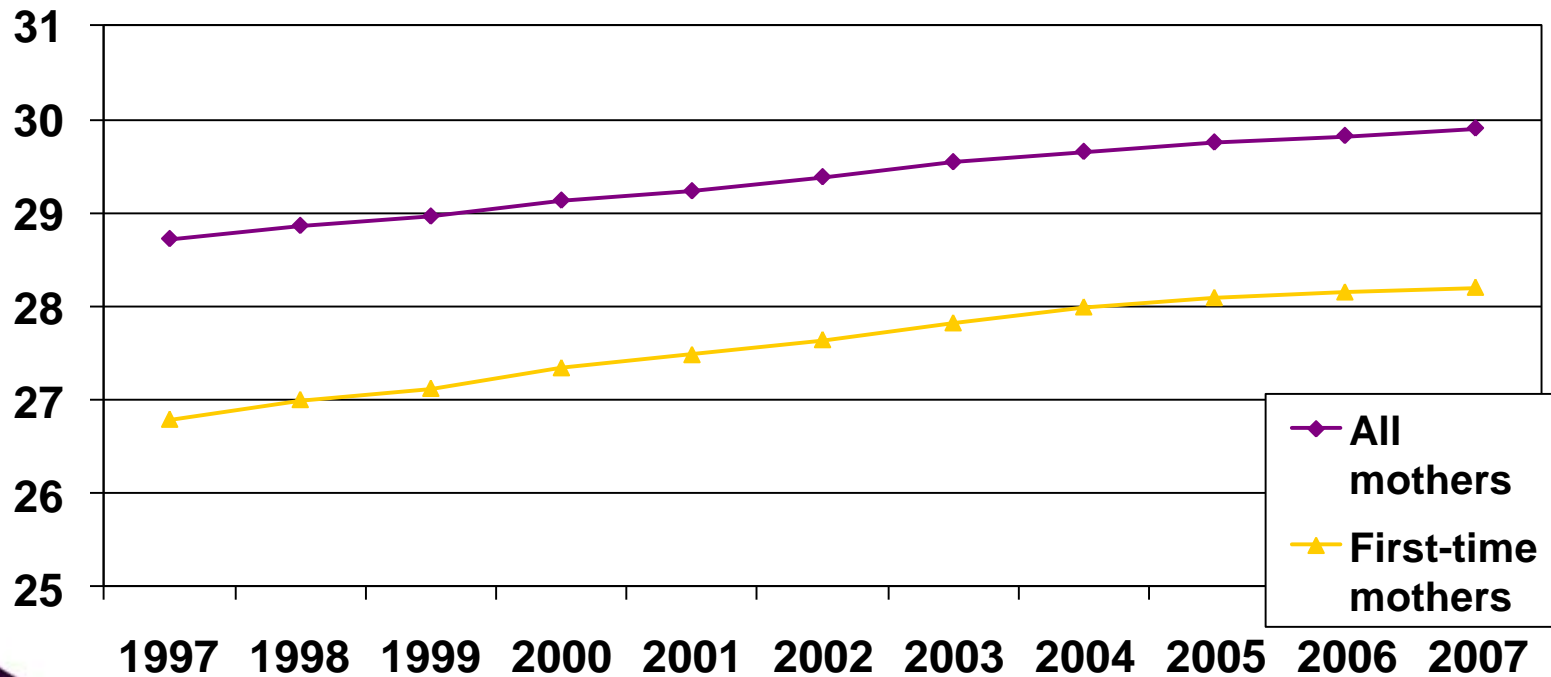


Women who gave birth, 1997–2007



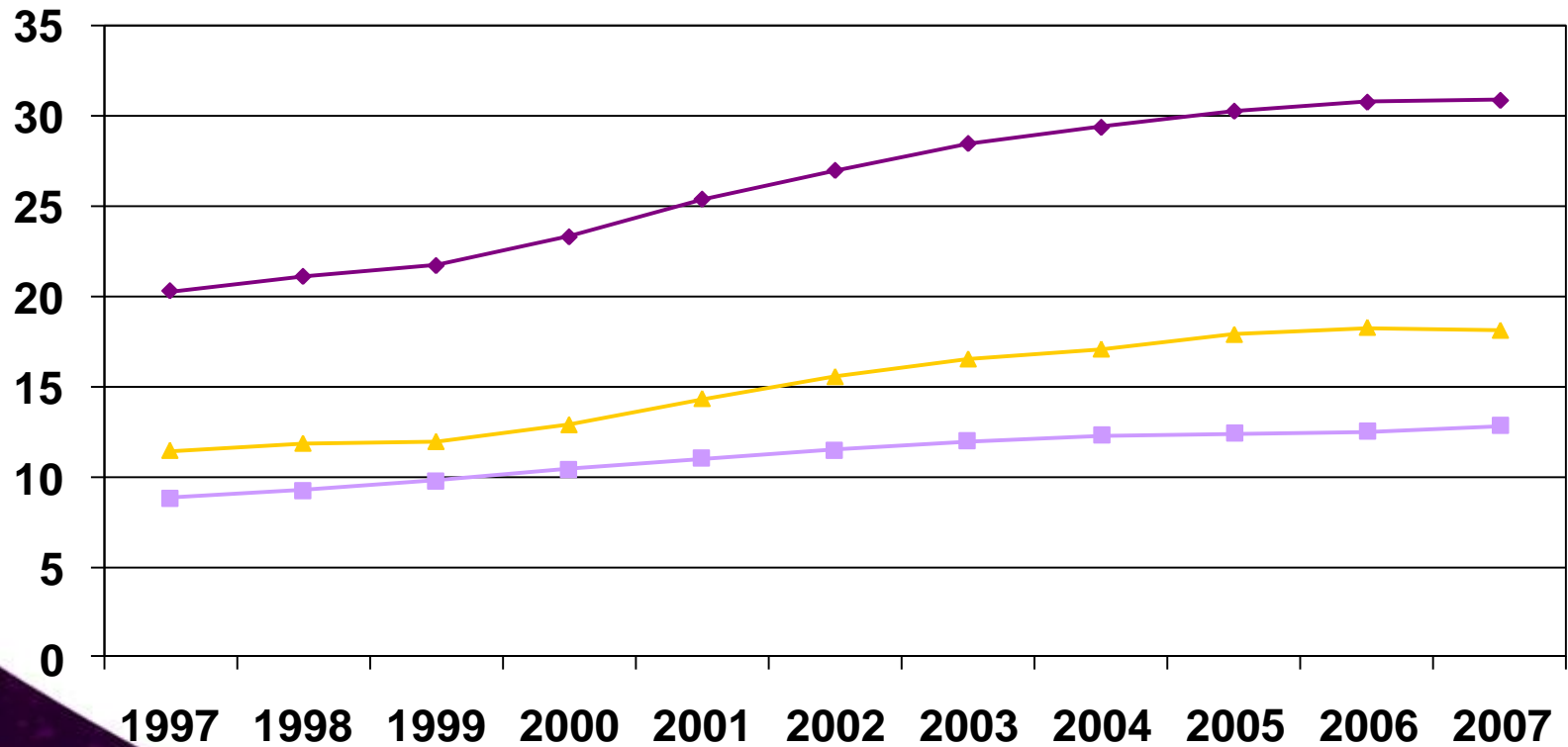
Source: AIHW NPSU NPDC 2009

Mean age of first-time mothers and all mothers, 1997–2007



Source: AIHW NPSU NPDC 2009

Caesarean section rates, 1997–2007



Source: AIHW NPSU NPDC 2009

Rare severe disorders of pregnancy

- Incidence is unknown
- Outcomes not well described
- Associated with high mortality rates
- Studies into 'near-miss' events may give more insight into risk factors and possible means of prevention
- Lack of evidence based information
- No nationally agreed definition
- Proxy measures (ICD-10-AM diagnostic & procedure codes)
 - No system of surveillance

Why is a national monitoring system needed?

- Lack of robust evidence for clinical practice
- Maximise the safety & quality of maternity care & outcomes
- Burden on healthcare sector not quantified
- Inform policy & future services

¹ Report of the Maternity Services Review Next steps: developing a national plan

Recommendation 1:

That the Australian Government in consultation with states & territories & key stakeholders agree & implement arrangements for:

consistent, comprehensive national data collection, monitoring & review, for maternal & perinatal mortality & morbidity”

1. Improving Maternity Services in Australia, The Report of the Maternity Services Review 2009. Attachment A: Summary of Recommendations pg 57.

The AMOSS system

- Aims of AMOSS
- AMOSS surveillance
- AMOSS conditions
- Research protocols
- Data collection



AMOSS national monitoring system

- *Australasian* Maternity Outcomes Surveillance System
- Active monitoring (surveillance) & research system of selected rare & severe disorders of pregnancy
- Australia and New Zealand
- Network of hospitals >50 births per year
 - AMOSS coordinators
- National Health & Medical Research Council Project Grant # 510298. 2008-2012.

Aims of AMOSS

- To improve the knowledge of rare obstetric disorders and their management.
- To develop the methodology of AMOSS and to implement a national network of collaborators.
- To use AMOSS to undertake national research of rare obstetric disorders evident during pregnancy and the puerperium.
- To translate research findings into policy, clinical guidelines and education resources for clinicians.

Surveillance - active case finding

- Passive
 - Maternity Provider-initiated
- Active
 - AMOSS - initiated

Surveillance of maternal morbidity

- Estimate magnitude of the problem
- Determine geographic distribution of illness
- Portray the natural history of a disease
- Define a problem
- Generate hypotheses, stimulate research
- Evaluate control measures
- Monitor changes
- Detect changes in health practices
- Facilitate planning

Features of AMOSS

- Rare (<1:1000) conditions
- Severe morbidity (diagnosis/clinical markers/management of interventions)
- Mortality
- Each condition: collect data over a 12-month period
- Hospital-based (> 50 births)

Research system

- Incidence studies
 - Epidemiology of condition
- Case control studies
 - Investigate risk factors, management & outcome
 - 1 case: 2 controls
 - Hospital controls

Translation of findings

- Creating clinical guidelines
- Education, resources
- Knowledge transfer to the clinical setting to improve safety and quality of maternal care and outcomes
- Influence policy development

Study protocols & Instruments

- Adaptation of UKOSS protocols
- Peer review
- Instruments developed
- Data dictionary
- Input data validation
- (*see amoss.com.au & amoss.co.nz*)

2010 conditions

- Antenatal pulmonary embolism
- Amniotic fluid embolism
- Eclampsia
- Placenta accreta
- Morbid obesity (BMI>50)
- Peripartum hysterectomy
- (+ Influenza in Intensive Care)

Possible conditions for 2011+

- Rheumatic heart disease
- Cancer in pregnancy
- Admission to ICU
- Solid organ transplant recipients
- Communicable diseases
- Myocardial infarction
- ... and others

Features of AMOSS - getting the data

- Web-based data management system
- Auto-generated monthly e-mail
- Active case finding - monthly negative reporting
- Data entry via secure website – view and review cases submitted
- Standard input screen - inbuilt data validation
- Contemporaneous summary report

www.amoss.com.au &
www.amoss.co.nz

- The hub of AMOSS
 - Data collection system
 - Advisory group forum
 - Consumer forum
 - Resources, research papers, links
 - Latest news

AMOSS partnerships

- Consultation
- New Zealand partners
- Project Board
- Advisory Group
- College & Jurisdictional representatives



Consultation

Midwives, Obstetricians and Anaesthetists

Practitioners

Royal Aust & New Zealand
College of Obstetricians
Gynaecologists
(RANZCOG)

NACCHO and
Aboriginal and
Torres Strait
Islander groups

DOHA

WHA
APSU

AIHW

PMMRC

Other Professional
Colleges - RACP,
ANZCA, SOMANZ,
RANZCP

Australian College of Midwives

Statewide
perinatal
committees / DoH

State/
Territory
Health
Depts

CANA

New Zealand College of Midwives

Consumers

Australia Commission of
Safety & Quality in Health
Care (ACSQHC)

Participating
hospitals -
private, public

Maori and Pacific Islander
groups

Australia College of Rural and Remote Medicine

Joint Faculty of Intensive Care Medicine

Role of the project board

- Accountable for the implementation of AMOSS
- Ensure that the project deliverables align with the project plan and original grant proposal.
- Provide expert advice on research methodologies, data protocols, scientific merit and equitable access to surveillance data.

AMOSS Project Board

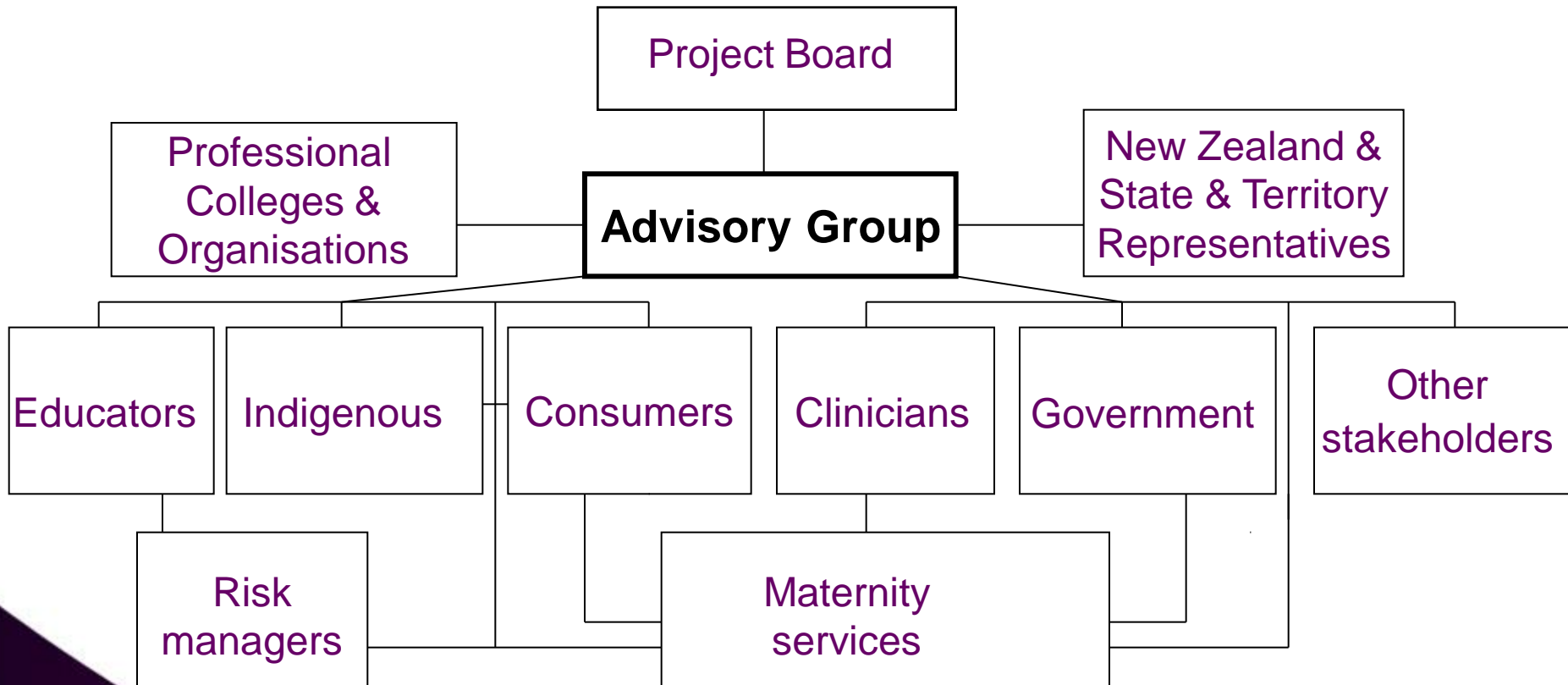
Chief investigators:

- Associate Professor Elizabeth Sullivan, Perinatal and Reproductive Epidemiology & Research Unit, School of Women & Children's Health, University of New South Wales
- Professor Michael Peek, Nepean Clinical School, University of Sydney
- Dr Marian Knight, National Perinatal Epidemiology Unit, University of Oxford, United Kingdom
- Professor David Ellwood, School of Clinical Medicine, Australian National University Medical School
- Professor Caroline Homer, Faculty of Nursing, Midwifery and Health, University of Technology, Sydney
- Professor Lisa Jackson Pulver, Muru Marri Indigenous Health Unit, School of Public Health and Community Medicine, University of New South Wales

Associate investigators:

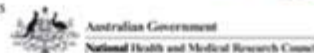
- Professor Elizabeth Elliott, Australian Paediatric Surveillance Unit; The Children's Hospital at Westmead, Sydney
- Dr Claire McLintock, Department of Obstetrics and Gynaecology, University of Auckland, New Zealand
- Dr Jane Thompson, Women's Hospital Australasia
- Dr Nolan McDonnell, Department of Anaesthesia and Pain Medicine, King Edward Memorial Hospital for Women, Western Australia
- Dr Yvonne Zurynski, Australian Paediatric Surveillance Unit, The Children's Hospital at Westmead, Sydney
- Professor Tessa Ho, Office of Medical Education, Faculty of Medicine, University of Sydney
- Dr Wendy Pollock, La Trobe University/Mercy Hospital for Women

Stakeholders

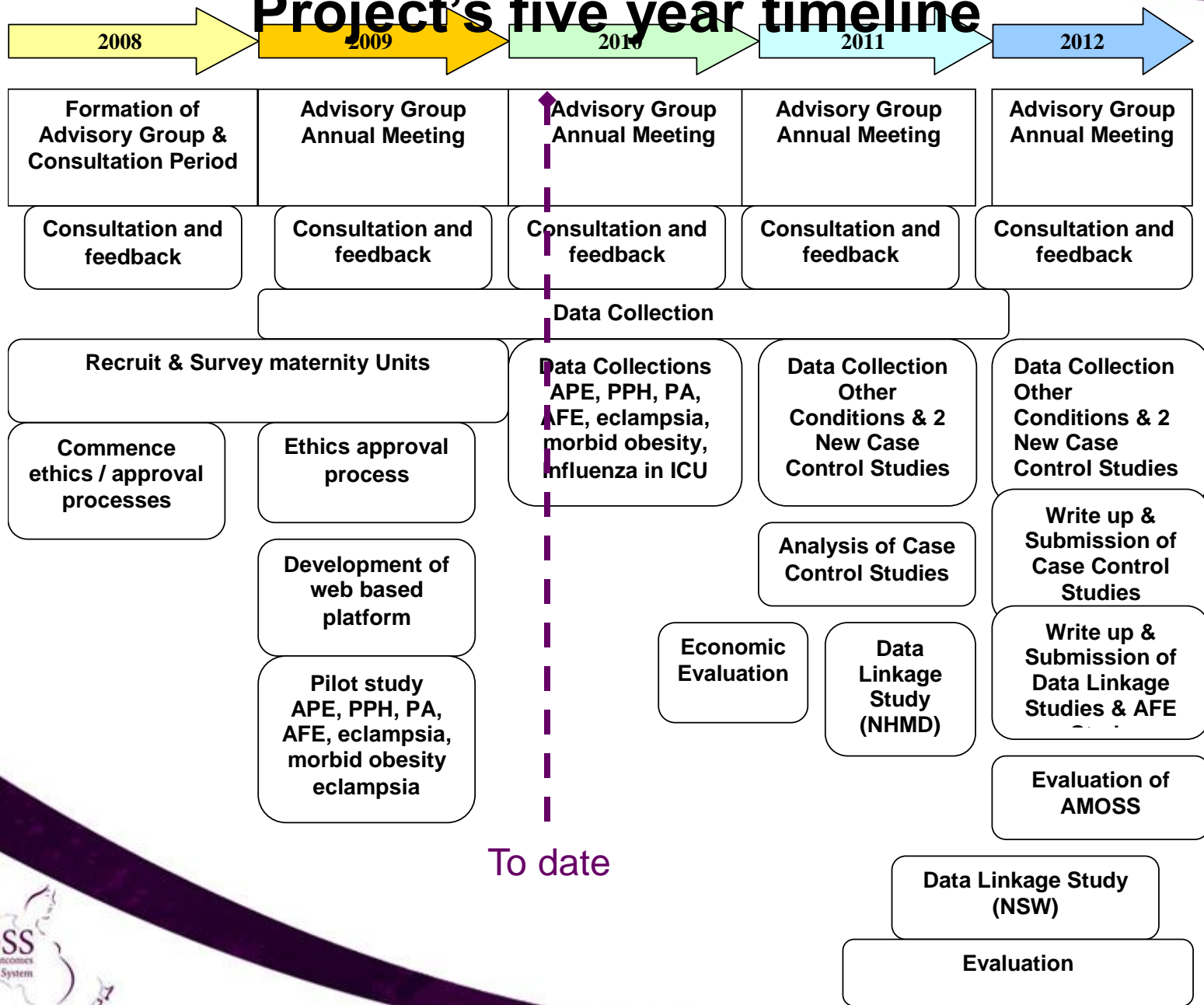


AMOSS status report

- Phases
- Progress to date
- Achievements



Project's five year timeline



To date

AMOSS phases

- Phase 1
 - Consultation
 - Developing AMOSS
 - Governance
 - National survey
 - Recruitment of sites
 - Extension of AMOSS to New Zealand
- Phase 2
 - Implementation and evaluation

Progress report

- June 2009 launch Parliament House
- Ethics and governance processes
 - AMOSS now covers over 70% of births in Australia and all of New Zealand
- Recruitment of sites continues
- Web based system
 - collecting data on 2010 conditions
- Collaborative work
 - ANZICS/AMOSS - H1N1 INFINITE study
 - Paper accepted for BMJ
 - UKOSS and INOSS
- National survey mapping maternity services
 - Paper pending

Summary

- AMOSS: a viable national surveillance & research system
- Collaborative approach
- Better knowledge of rare obstetric disorders
- Improved maternal outcomes