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**WORLD HEALTH ORGANIZATION COLLABORATING CENTRE
FOR NURSING, MIDWIFERY & HEALTH DEVELOPMENT**

Challenges for the Nursing Workforce: Staffing for Patient Safety

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What do we know in Australia

- Workforce trends:
 - Health employs more workers than ever
 - Increased demand & competition for skilled employees
 - Working less hours than ever
 - Aging (population & staff)
- Nurses and midwives specifically:
 - More registered nurses & midwives are employed than a decade ago
 - Less enrolled nurses (second tier)
 - More unregulated workers - PCAs/AINs

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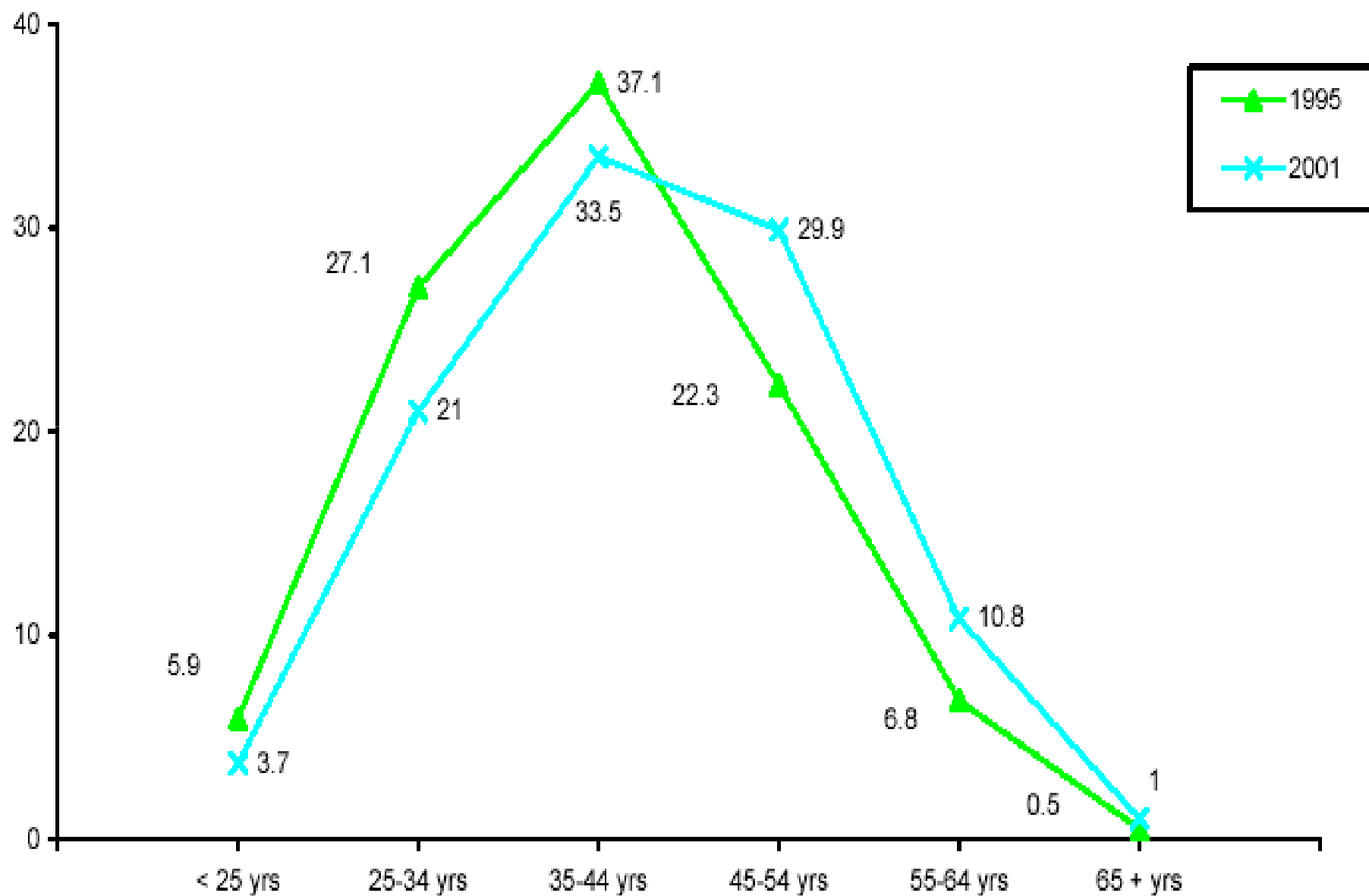
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In Australia

- > 239,000 nurses registered, 207,000 working
- > Average age of nurses is 45
- > Percentage over 55 increased to 20% by 2005
- > 14% nurses retire every five years
- > 90,000 expected to retire by 2020 (AHWI 2008)
- > NSW – 6700 nurses left the State health system in the past year

Figure B5: Nursing workforce, age distribution (%), 1995 to 2001



Source: AIHW Nursing Labour Force Survey

Figure 4.3 Projections of the number of registered nurses, 2000-2020

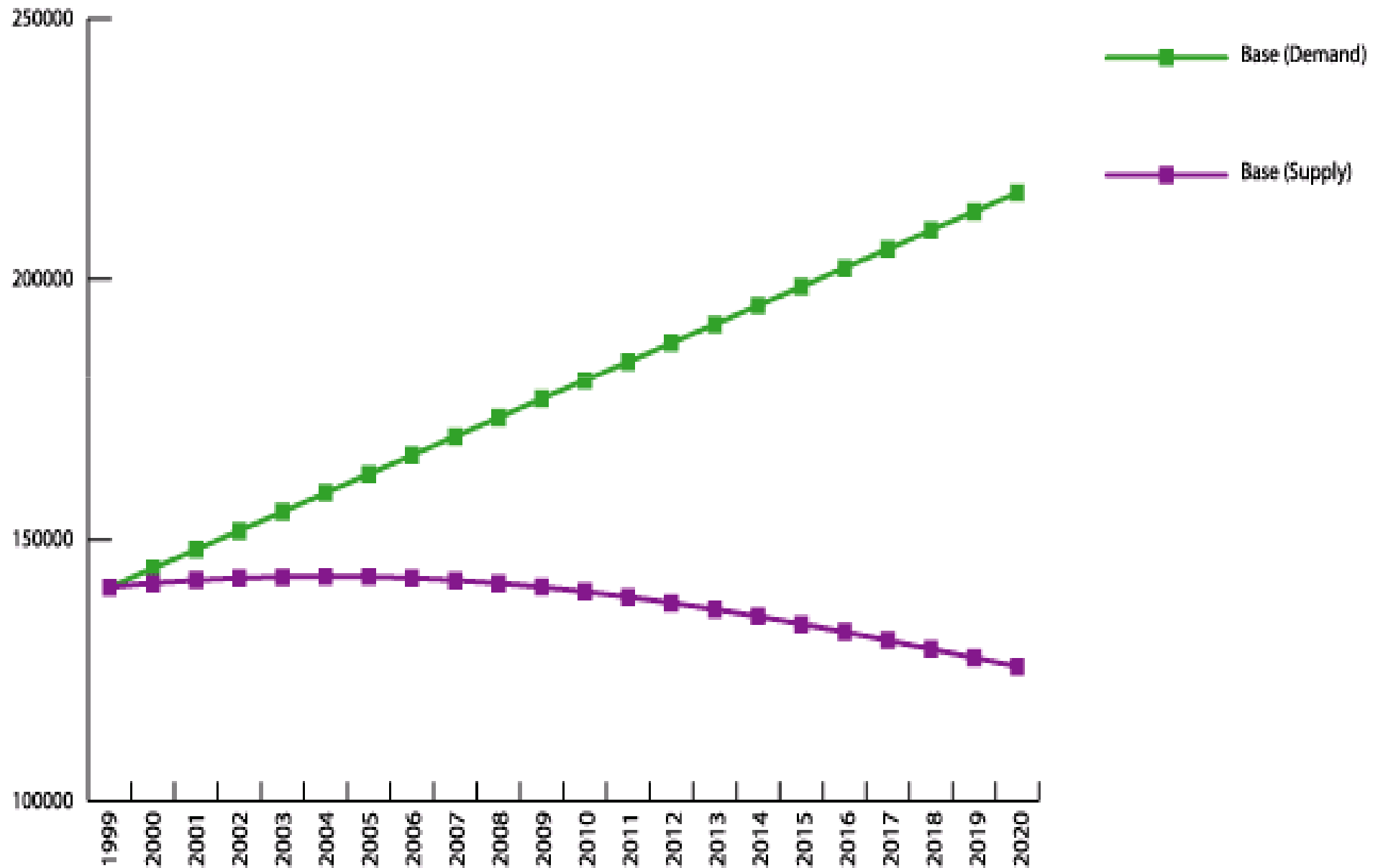
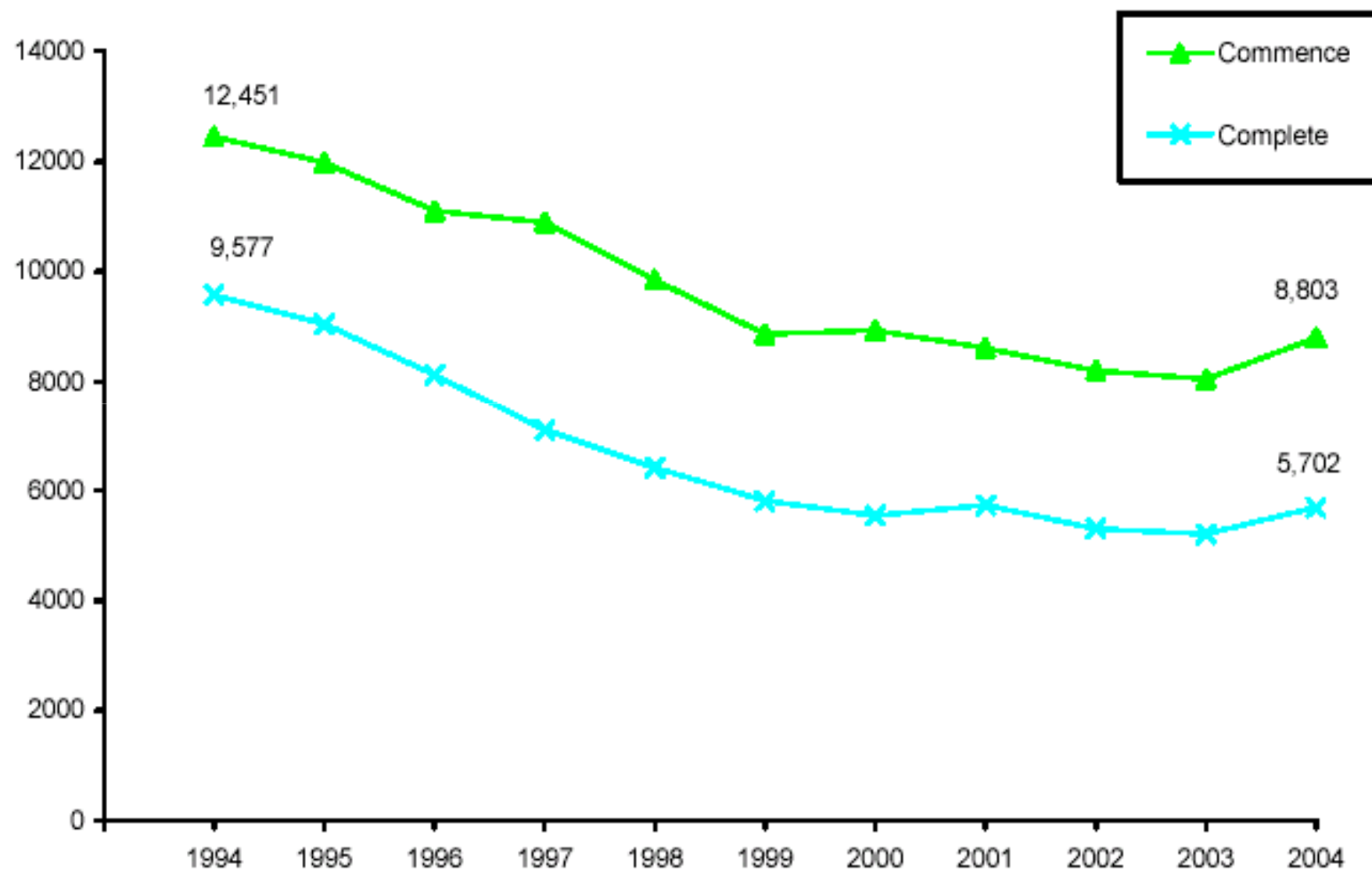
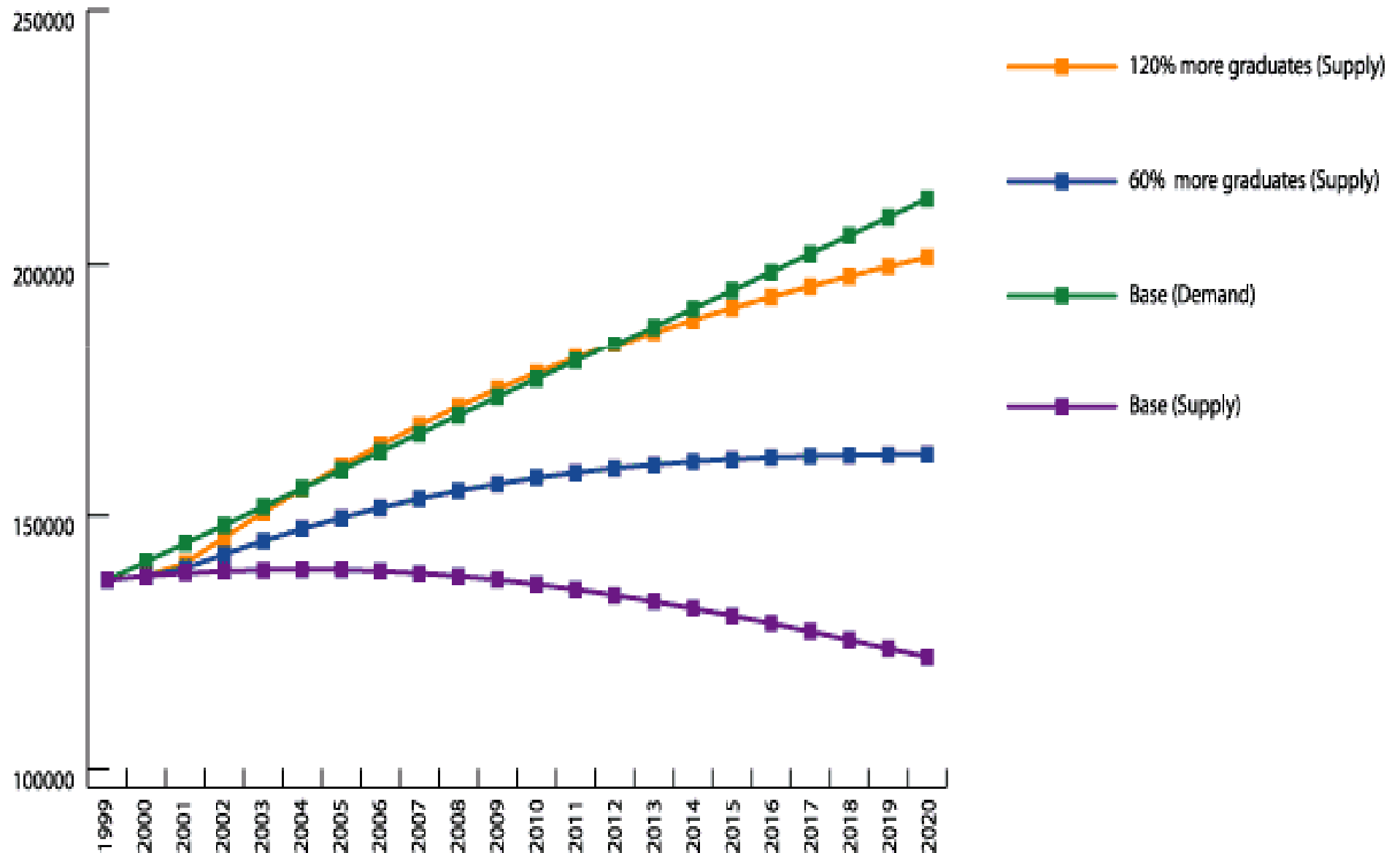


Figure B8: Nursing, undergraduate commencements and completions, Australian citizens, 1994 to 2004



Source: AIHW

Figure 4.4 Projections of registered nurses, allowing for an increase in the number of new graduates, 2000-2020



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Why is this important?

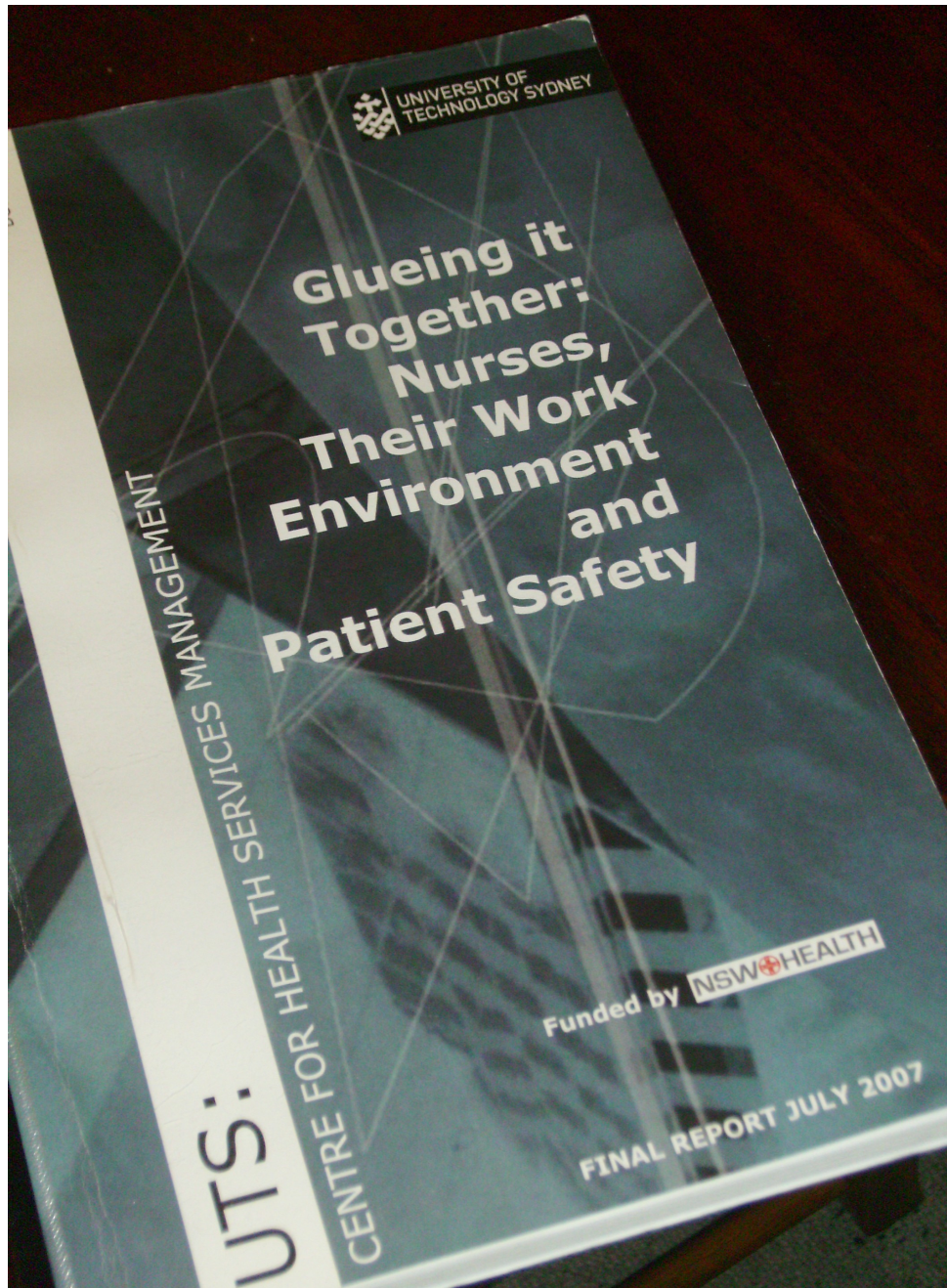
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Staffing to patient outcomes

- 24% 'sentinel events' related to nurse staffing levels (AHA 2002)
- RNs decrease morbidity and mortality (Tourangeau et al. 2006, Aiken et al. 2003)
- Higher RN hours/patient decrease length of stay (LOS) & complications (Needleman & Buerhaus 2001)
 - Nursing sensitive outcomes
 - The ward level - NSW Study (Duffield et al. 2006/7)



“My discovery, as a patient first on a medical service and later in surgery, is that the institution is held together, glued together, enabled to function as an organism, by the nurses and by nobody else...”

Lewis Thomas, MD, The Youngest Science, (1983 p.67)

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Definitions

- Skillmix = the proportion of registered nurses (RNs)
- Nursing sensitive outcomes
 - CNS complications, DVT, decubitus ulcer, GI bleeding, pneumonia, sepsis, shock/cardiac arrest, UTI, failure to rescue, physiologic/metabolic derangement, pulmonary failure, surgical wound infection, mortality, length of stay (Needleman et al. 2001)
 - Falls, medication errors

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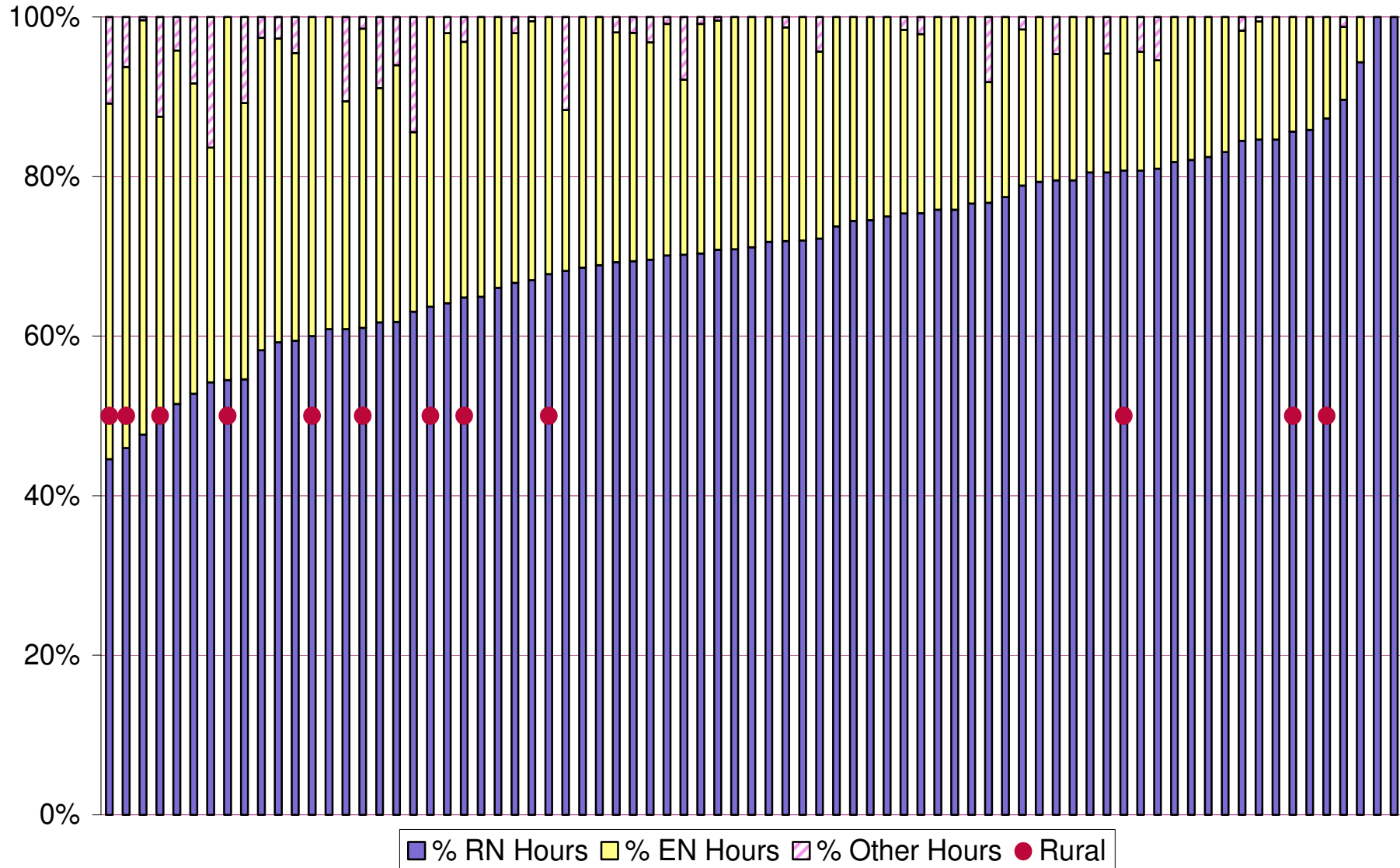
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Nursing Sensitive Outcomes (Needleman et al. 2001)

- Decubitus Ulcer (Pressure Ulcer)
 - Caused by prolonged pressure on skin areas, usually due to immobility - mobilisation and positioning of patients are central nursing activities
- Pneumonia
 - Two key risk factors are prolonged immobility, which leads to inadequate ventilation of parts of the lungs, and inappropriate or failure to perform pulmonary hygienic techniques - nursing care influences both risk factors

Percentage Of RN, EN, Other Nurse Hours Worked Per Ward (Duffield et al. 2007)



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Patient Outcomes

- A higher proportion of RNs resulted in decreased rates of
 - Decubitus ulcers, gastrointestinal bleeding, sepsis, shock, physiologic/metabolic derangement, pulmonary failure as well as “failure to rescue”
 - Fewer falls
- Fewer medication errors (most were without medical consequence to the patient) when
 - A nurse educator was present on the ward
 - The proportion of planned admissions increased
 - The proportion of nurses working on their “usual” ward increased

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Patient Outcomes 2

- Patients were more likely to experience a medication error or other adverse outcomes where
 - Nurses experience physical violence or threat of violence
 - Nurses delayed the completion of tasks
- Decreased adverse events (falls, medication errors, pneumonia) with
 - Specialist nursing support on the ward (CNC)
 - A nurse educator on the ward
 - More hours of housekeeping

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Nurse to Patient Ratios

- Nurses caring for > 8 patients vs < 4 results in a 30% increased chance of dying
- Their capacity to provide surveillance decreases as patient numbers increase (Aiken et al. 2003)

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Nurse to Patient Ratios

- Nurses caring for > 8 patients vs < 4 results in a 30% increased chance of dying
- Their capacity to provide surveillance decreases as patient numbers increase (Aiken et al. 2003)
- RN staff only
 - AM - Mean **5.7** (2.2 – 14.7)
 - PM - Mean **6.6** (2.2 – 21.3)
 - Night – Mean **11.8** (3.7 – 36)

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The Work (Practice) Environment and Patient Safety

- Adverse patient outcomes increase as ward environments become less stable
 - Fewer permanent staff
 - Fewer nursing hours per patient day
 - Decreased perception of nurse leadership
 - No nurse educator support
 - More patients per bed
 - Higher levels of perception of violence

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Our Role

- > Reiterate the importance of skilled nursing for patient safety
- > Maintain supply through education and retention strategies
- > The role of nurse managers – executive and first-line

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Thank you

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