

PSYCHOLOGICAL DISTRESS ASSOCIATED WITH EQUINE INFLUENZA

Mel Taylor, Kingsley Agho, Gary Stevens, Beverley Raphael

Science of Mental Health and Adversity Unit (SciMHA)
School of Medicine, University of Western Sydney

Eradicating Equine Influenza in NSW: Perspectives of Victory
15 – 16 December 2008

Presentation Outline

I. 2007 Study introduction

- Human impacts of equine influenza study
- Measurement of psychological distress

II. Findings

- National impact – control zones, industry sectors, age
- Data modeling – risk factors

III. The Good News

- 2008 Follow-up study - evidence of recovery
- Psychological distress and biosecurity

I. 2007 Study Overview

- Human Impacts of Equine Influenza Study
 - Context and motivation
 - complement economic surveys
 - personal and professional interest
 - complexity in range of impacts/industry sectors
 - Study Aims
 - To investigate the biosecurity response and psycho-social impacts of equine influenza
 - Content
 - broad ranging: risk perception, impacts of biosecurity, support social impacts, psychological distress, resilience.

Study methodology

–Inclusive

- wide range of respondents, sensitivity to inequity issues

–Methodology

- online 166 item 'research survey'

–Participants

- horse owners and those involved in the horse industry
- self-selected sample



Administration & limitations

–Distribution

- via AHIC Horse Emergency Contact Database, 8000 addressees

–Timing

- 15 November (T+ 12 weeks), but evolving sample...

• Limitations

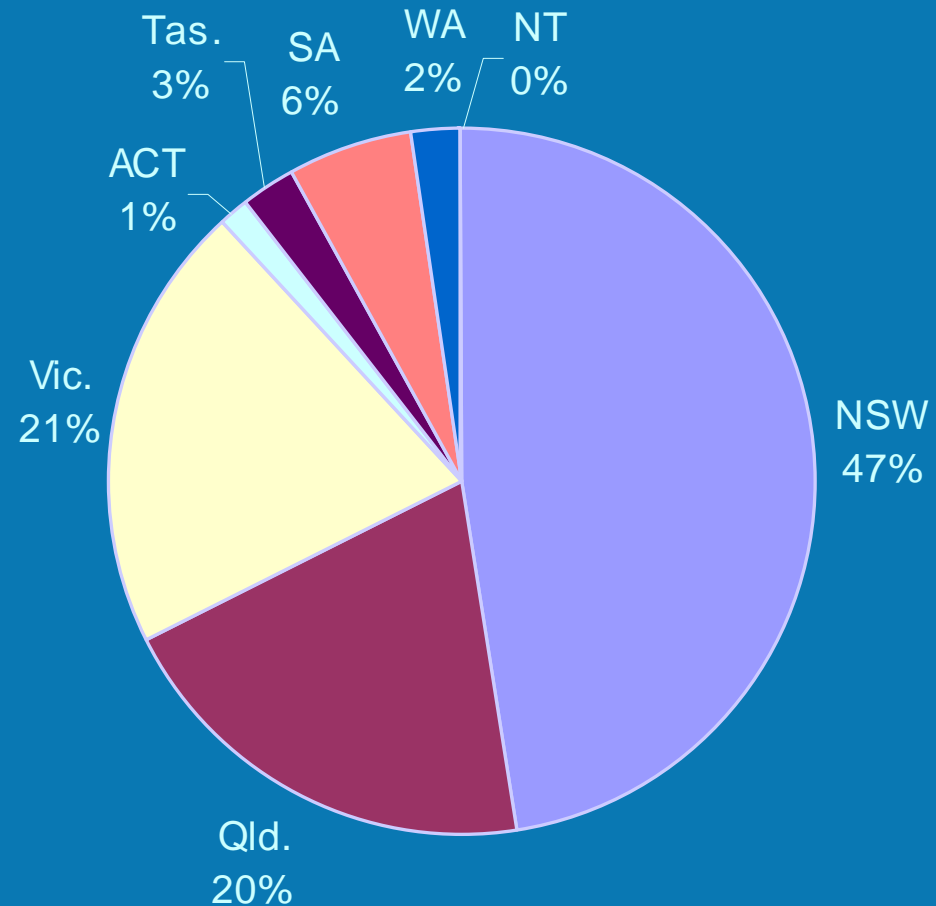
- not a representative sample of the whole horse-owning/industry population
- no baseline measure – can't say what people were like *before* EI

Measurement of Psychological Distress

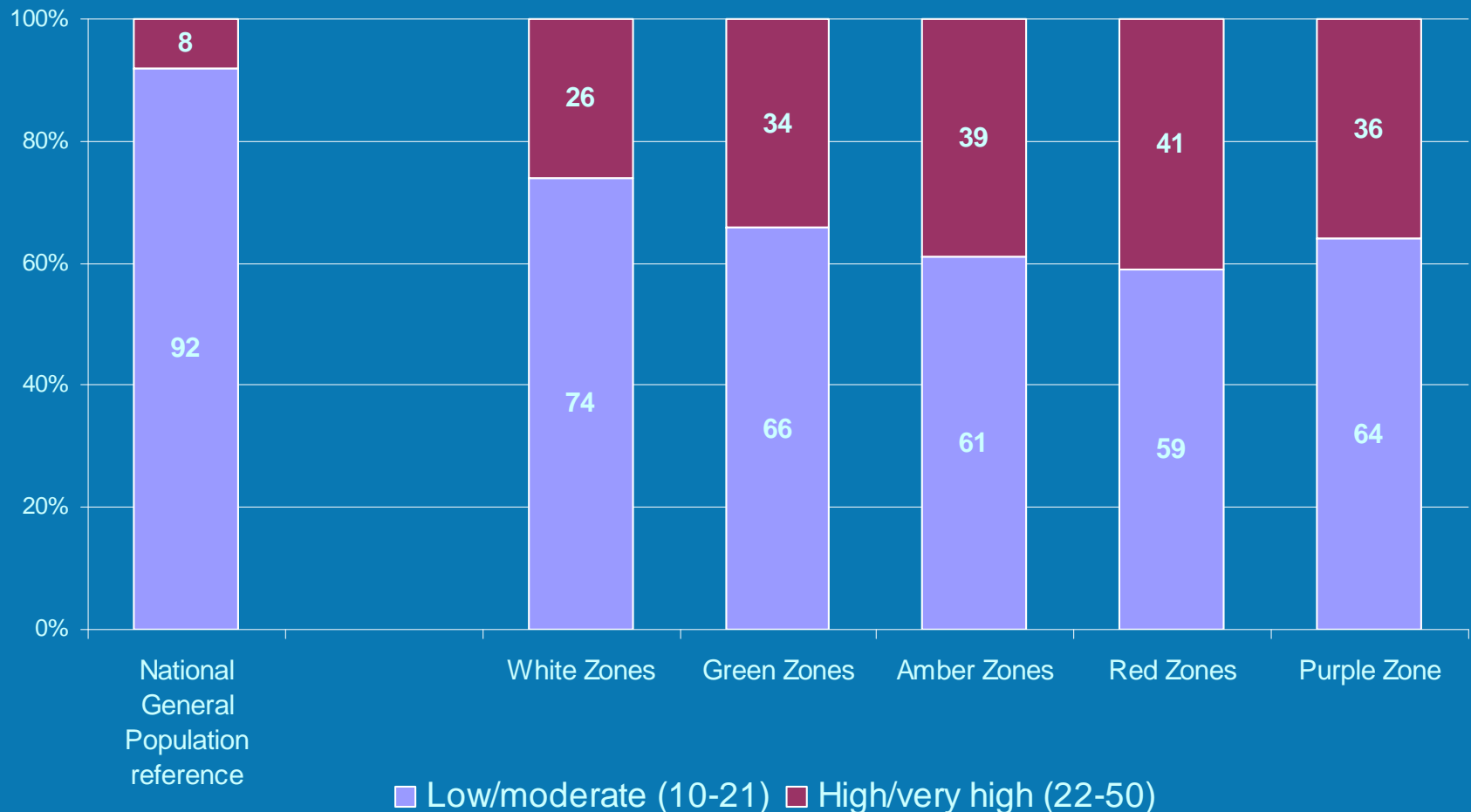
- Measured using the Kessler 10 (K10)
- Ten items
 - composite score from 10-50
 - Low (10-15); Moderate (16-21); High (22-29); Very high (30-50)
- Advantages
 - Widely used in Australia and baseline population data available
 - Links to mental disorders and intervention strategies
- Only one measure of psychosocial impact included in study

II. Findings - sample

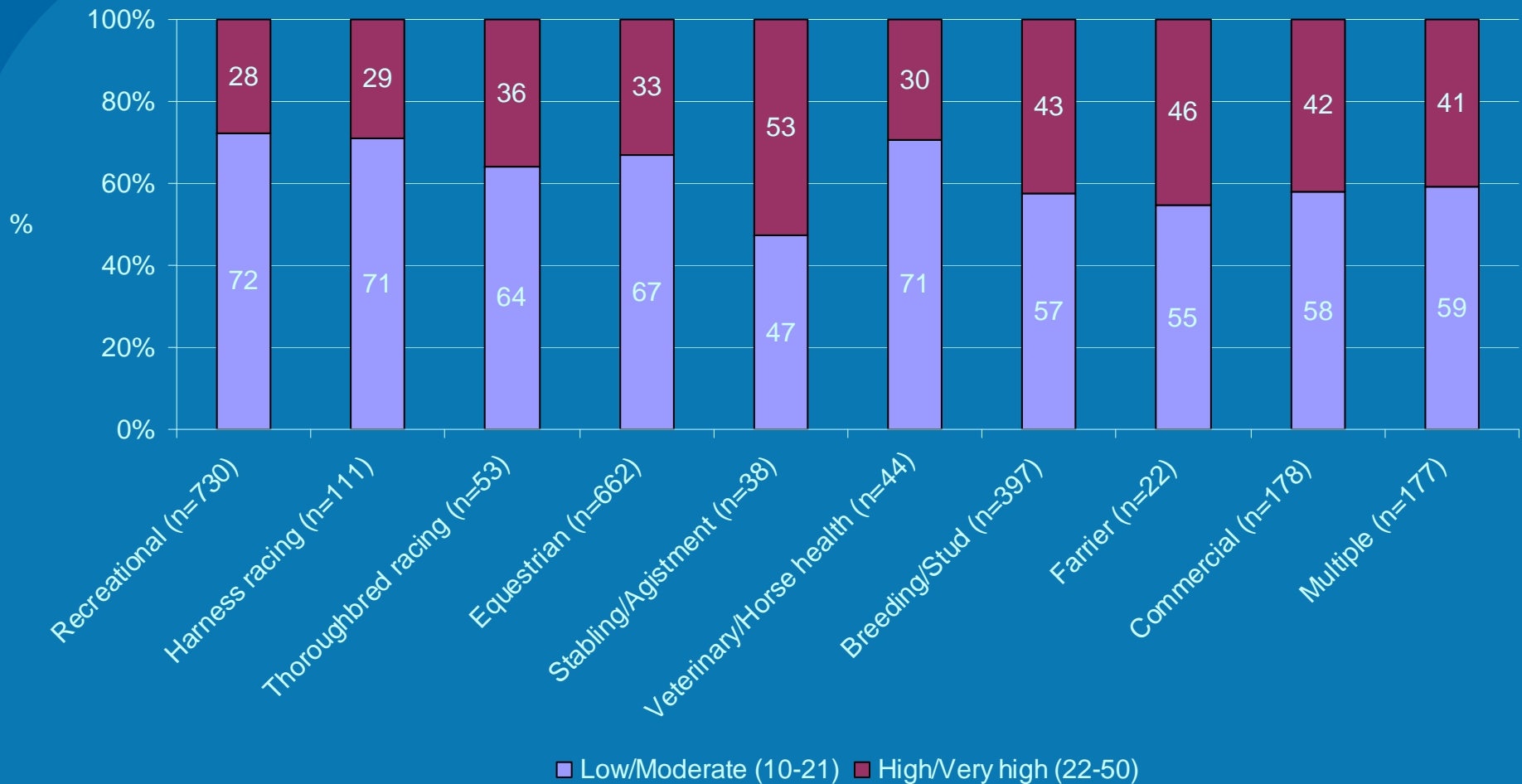
- 2760 responses analysed
- Geographical distribution
 - 67% infected states (NSW/Qld)
 - 33% uninfected states
- Across all industry sectors
 - recreational (30%)
 - equestrian (27%)
 - breeding (16%)
 - commercial (7%)
 - harness racing (5%)
- In infected states 43% had experienced EI directly



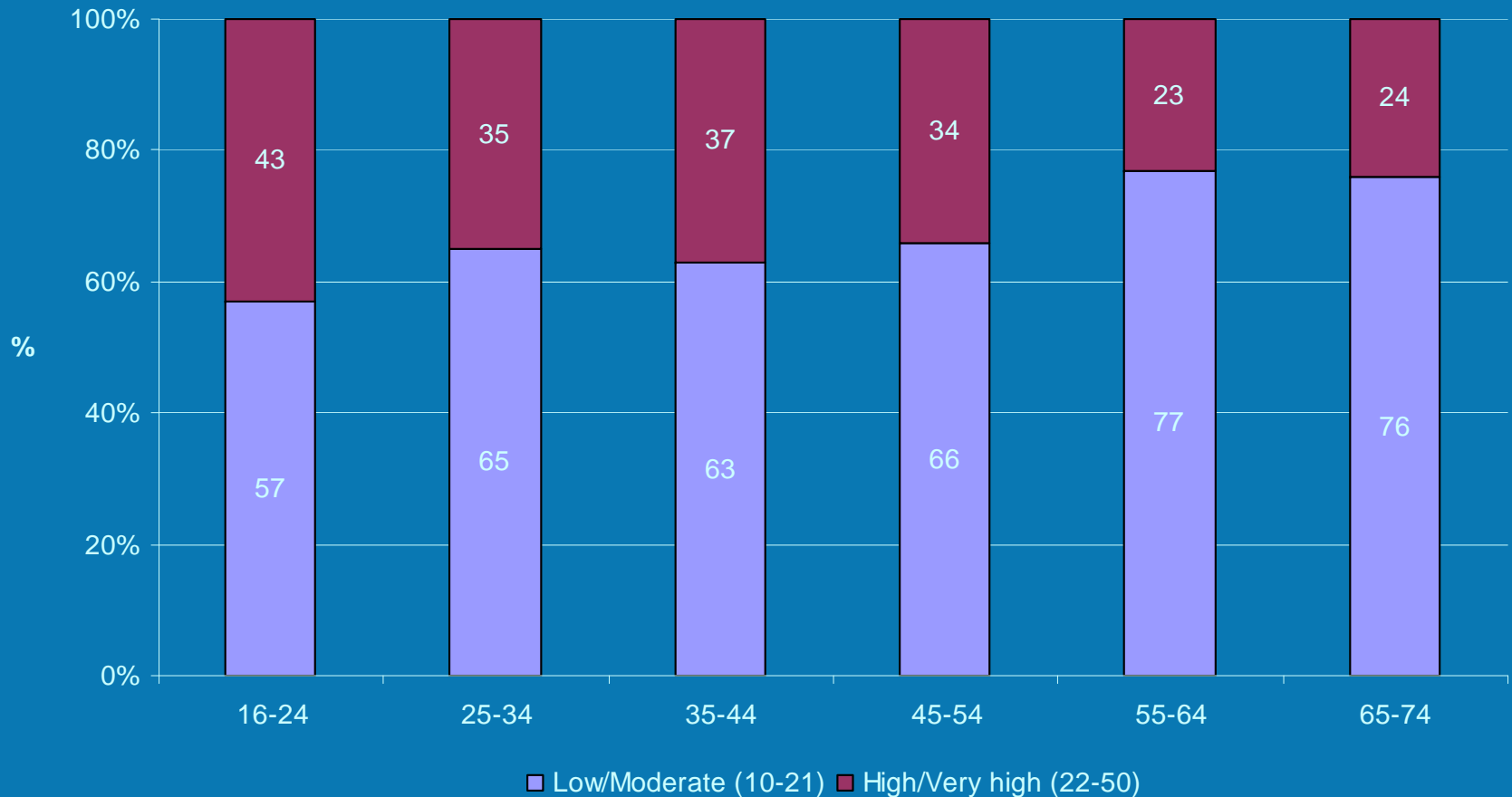
Psychological distress by EI control zone



Psychological distress by industry sector



Psychological distress by age



Risk factors for high psychological distress

–Statistical analysis

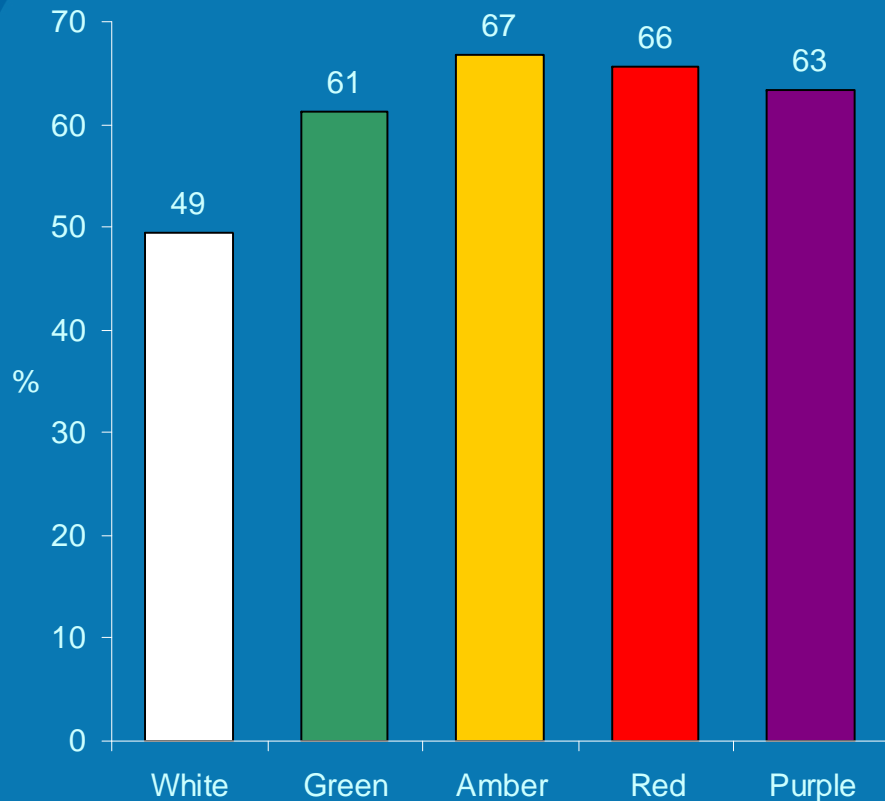
- Backward stepwise binary logistic regression analysis

–Factors associated with high psychological distress

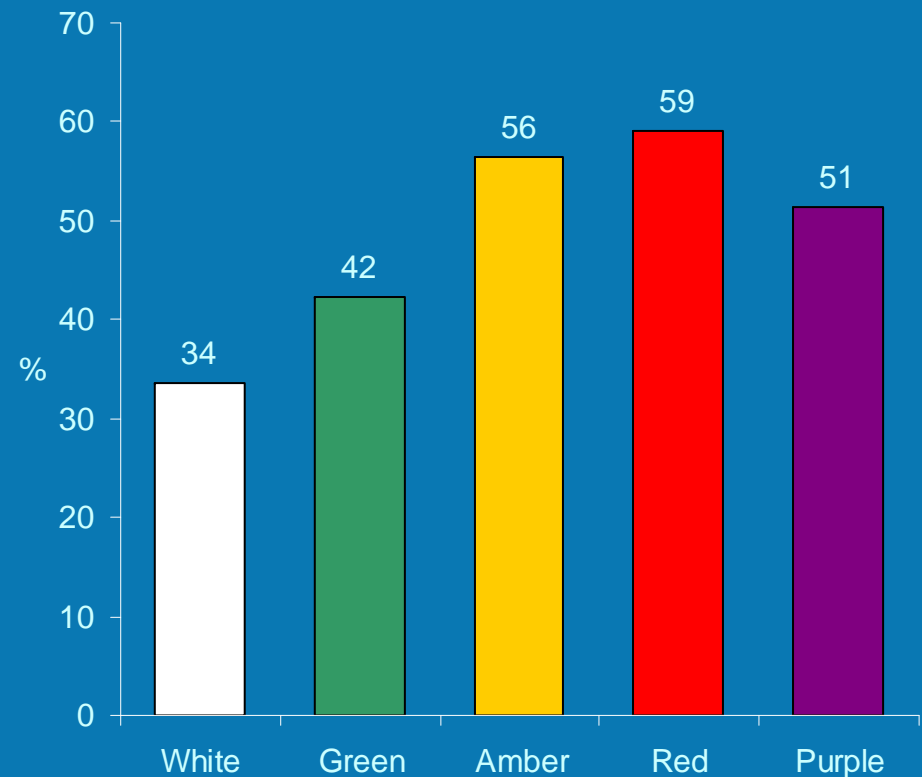
- EI control zone (red > amber > purple > green)
- Younger people (<24)
- Lower educational status (School Certificate/none)
- Income related to horse industry

High psychosocial impacts by control zone

Social impact



Emotional impact



Percentage of respondents in each colour zone reporting 'a lot/extremely'

III. The Good News

–2008 Follow-up study

- Launched on 2 December 2008
- 1224 respondents from the 2007 study

–Focus – two main areas

- Psychosocial recovery (incl. psychological distress)
- Changes in biosecurity practices

–Response to date

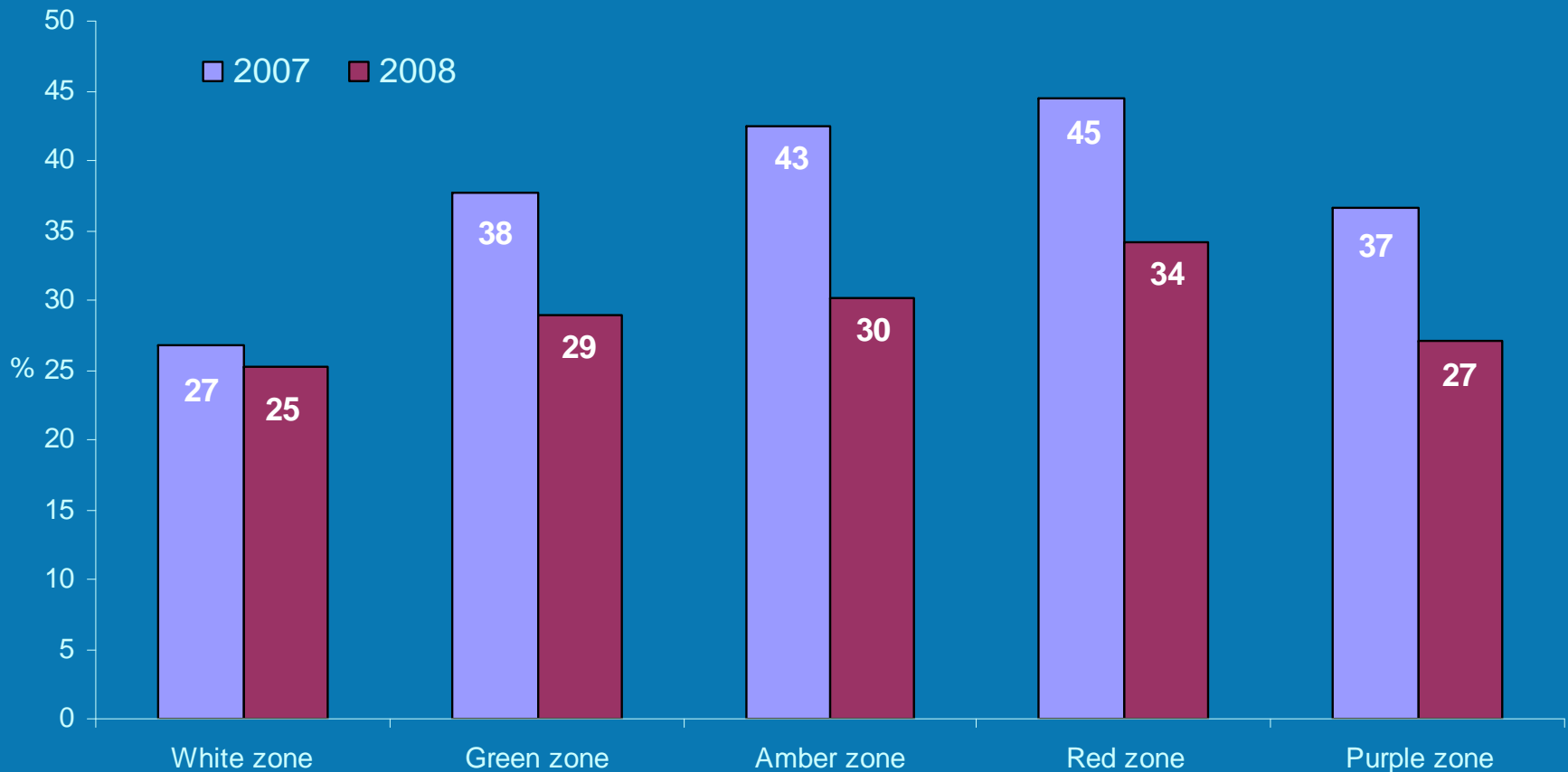
- 637 respondents (52%)

–Study extended (9 Dec) to include all on HECD

2008 Follow-up study

Preliminary data (n=560)

Percentage reporting high/very high psychological distress during E1 outbreak and 12 months later



Biosecurity analysis and psychological distress

–Data from 2007 Study

- Development of a Biosecurity Behaviours Index based on 11 behaviours during EI outbreak
- Prevalence of ‘high’, ‘moderate’ and ‘low’ compliance
- Factors associated with ‘low’ compliance

–Psychological distress?

- Low psychological distress associated with ‘low’ compliance
 - i.e. higher psychological distress appears to be good for biosecurity!

Thank you

Psychological distress associated with equine influenza

Research article available online/open access at
<http://www.biomedcentral.com/1471-2458/8/347>

melanie.taylor@uws.edu.au

