The Mental Health Impact of Fly-In Fly-Out (FIFO) work in Western Australia

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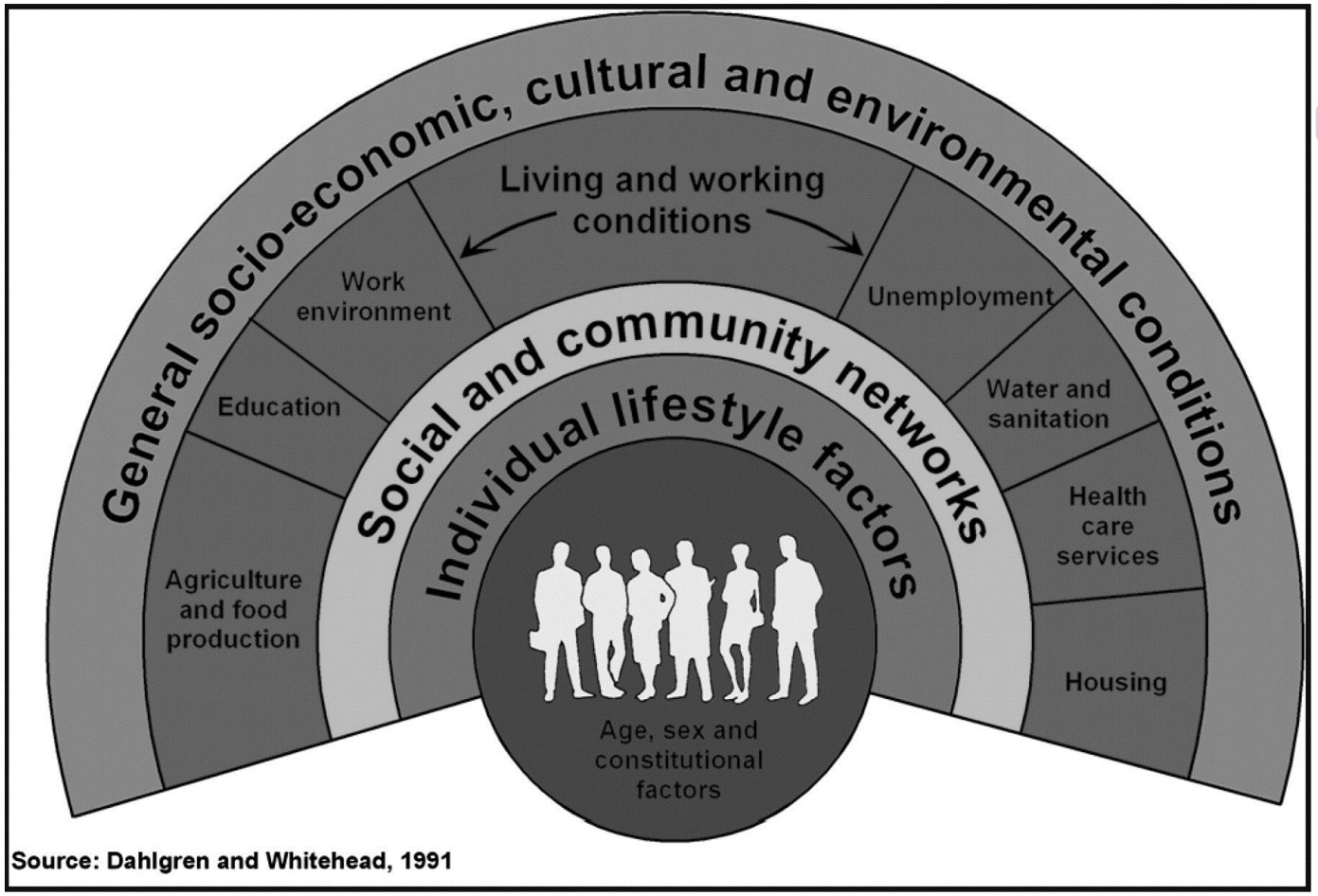
Outline of talk

- Limitations of existing frameworks to assess health risks and impacts at individual, family and community level
- Recent population level data on demography, health behaviours and health outcomes of FIFO compared to other workers
- Findings – mental health and chronic disease

Dahlgren and Whitehead's model of the social determinants of health



Bambra C et al. J Epidemiol Community Health 2010;64:284-291

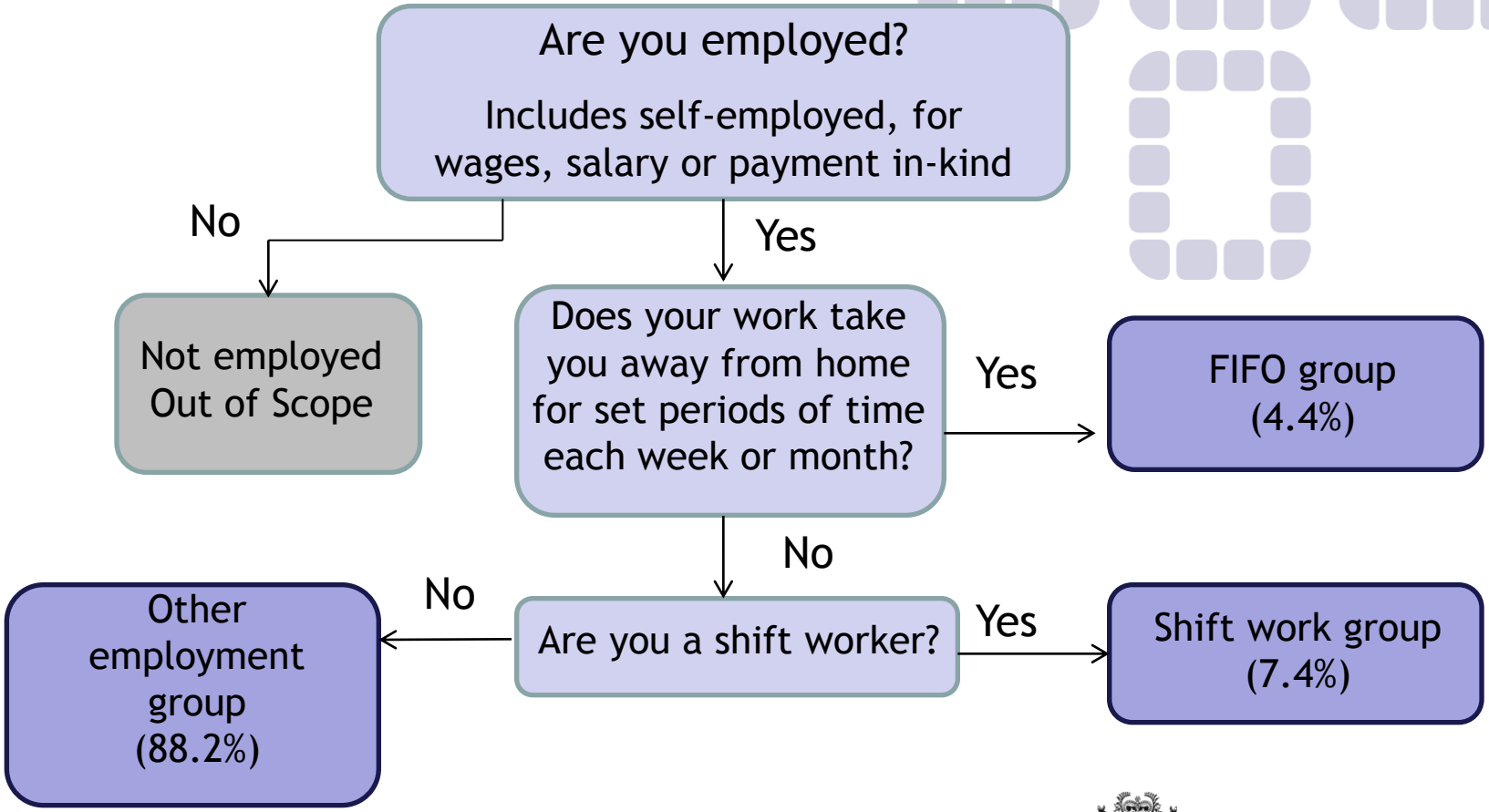
Health and Wellbeing Surveillance System Survey

- Running since 2002
- Monthly population based CATI surveys of about 500 people
- Self reported
- Home phone or listed mobile 9 am – 8 pm
- Response rate over 80%
- Sophisticated sampling, adjustment and weighting procedures
- Valuable trends for whole population over time

Study methods

- Years 2008-2010
- 16 years and over
- Sample of 11,906 employed (380 FIFO, 913 shift workers, 10,613 others equate to estimate of 4.4% FIFO)
- Reference: Joyce S, Tomlin S, Somerford P & Weeramanthri TS. Health behaviours and outcomes associated with fly-in fly-out and shift workers in Western Australia. *Internal Medicine Journal* 2013; 43: 440-444.

Methods



Government of **Western Australia**
Department of **Health**

Results 1 - Demography

Table 1: Demographic and employment characteristics

	Fly-in Fly-out workers	Other employment types
	%	%
Gender		
Male	88.5 *	54.2
Age (years)		
16-24	4.9 *	13.4
25-44	60.6 *	46.3
45+	35.5	40.4
Marital status		
Married/de facto	72.2	69.7
Living arrangement		
Living with family	12.3 *	19.4
Living with a partner and children	40.1	37.8
Education		
Year 12	8.6 *	13.3
Tafe/Trade qualification	52.0 *	42

** Difference is statistically significant*

Source: Joyce S, Tomlin S, Somerford P & Weeramanthri T (2012) Health Behaviours and outcomes associated with Fly-in Fly-out and Shift workers in Western Australia. *Internal Medicine Journal* (in press).

Results 2 – Demography, cont.

Table 1: Demographic and employment characteristics (cont)

	Fly-in Fly-out workers	Other employment types
	%	%
Area of residence		
Metropolitan	80.4	77.4
Socioeconomic indexes for areas		
Quintile 1 (most disadvantaged)	9.1	11.2
Quintile 5 (most advantaged)	25.8	26.1
Type of employment		
Heavy labour and/or physically demanding	25.6 *	16.5
Sedentary work	36.5	41.9
	Mean	Mean
Hours worked per day	11.4	7.5

** Difference is statistically significant*

Source: Joyce S, Tomlin S, Somerford P & Weeramanthri T (2012) Health Behaviours and outcomes associated with Fly-in Fly-out and Shift workers in Western Australia. *Internal Medicine Journal* (in press).

Results 3 – health risk

Table 2: Health behaviours by employment type

Health Behaviour	Fly-in Fly-out workers %	Other employment types %
Currently smokes	26.7 *	17.4
Insufficient physical activity	40.4	46.2
Insufficient fruit consumption	48.9	47.7
Insufficient vegetable consumption	87.7	87.9
Overweight or obese	79.3 *	68.0
Consumes more than two alcoholic drinks per day (high risk for long-term harm)	64.7 *	50.9
Consumes more then four alcoholic drinks per day (high risk for short-term harm)	29.8 *	21.5
	Mean	Mean
Number of drinking days	3.0 *	2.3
Number of drinks on a drinking day	4.2 *	3.4

** Difference is statistically significant*

Source: Joyce S, Tomlin S, Somerford P & Weeramanthri T (2012) Health Behaviours and outcomes associated with Fly-in Fly-out and Shift workers in Western Australia. *Internal Medicine Journal* (in press).

Results 4 – health outcomes

Table 3: Prevalence of health outcomes by employment type

	Fly-in Fly-out workers	Other employment types
Health outcomes	%	%
Heart disease	2.3	2.6
Stroke	0.0	0.6
Current asthma	6.4	8.6
Arthritis	10.5	14.4
Injury in the past 12 months	24.3	23.3
Current mental health problem	7.7 *	13.0
Diabetes	3.1	3.7

** Difference is statistically significant*

Source: Joyce S, Tomlin S, Somerford P & Weeramanthri T (2012) Health Behaviours and outcomes associated with Fly-in Fly-out and Shift workers in Western Australia. *Internal Medicine Journal* (in press).

Further questions – mental health

- Consider selection process and baseline characteristics (people *choose* FIFO work)
- Effect on family, relationships and parenting
- On site issues – lifestyle patterns, access to alcohol and other drugs
- Where to place services?
- Foreign workers – adjustment and transcultural issue

Further questions – chronic disease

- Consider the survey findings
- Workers on site – meals, exercise, lifestyle
- Where to place services – assume access when at home?
- Shape of workplace health programs/OHS
- What happens to motivation when you return home? Is there a ‘holiday’ phenomenon
- Role of electronic records etc to help with continuity of care

Conclusions

- FIFO lifestyle or work pattern a new phenomenon
- FIFO workers not a homogenous group – cannot generalise
- Lack a theoretical framework for dealing with this new and growing phenomenon
- Economic, social and health dimensions
- Many unanswered questions
- Need more data – quantitative as well as qualitative
- Address baseline health on entry and then follow up over time
- Specific aspects of FIFO work should inform physical and mental health policies
- Initially, consider access to GPs and role of workplace health programs