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Viewpoint

Multiple housing problems: A view through the housing niche lens

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A B S T R A C T

This paper presents an alternative view on the patterning of housing problems – across populations and within people. The conceptualization of housing problems through a 'housing niche' lens allows the cumulative influence of multiple housing vulnerabilities to be better visualized and understood. Using a large, representative sample of the Australian population, the analysis describes and models patterns of multiple housing problems, the characteristics of the population at risk, and reflects on the implications for how policy might better understand and respond to multiple housing problems.

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1. Introduction: the problem with housing problems

Throughout the post-WWII period Australia was a nation characterised by good quality housing for all, with a strong public housing safety net for those unable to compete in the private market. Relative to almost all other nations, Australians enjoyed very high housing standards, and most of our population attained "The Great Australian Dream" of home ownership (Badcock & Beer, 2000). However, Australia's housing honeymoon seems to have ended. We now have around two million Australians living in unaffordable housing (Bentley, Baker, & Mason, 2012), a rapidly shrinking public housing safety net (SCRCSSP, 2001 and 2013), decreased outright ownership (Flood & Baker, 2009), substantial pockets of concentrated poverty and disadvantage in the private rental market (Hulse, Burke, Ralston, & Stone, 2012), and each night more than 100,000 Australians are homeless (ABS, 2012). In this context, Australia has an increasing concern with housing problems, including homelessness, a housing affordability crisis, housing insecurity, decreasing home ownership, and undersupply in the private and social rental markets (ABS, 2012; Wood & Ong, 2011; Flood & Baker, 2009; Hulse et al., 2012; Commonwealth of Australia, 2011). In response to these problems there is substantial research, policy and media attention focused on measuring, understanding effects, describing vulnerability, and developing interventions to address Australia's housing problems in our cities and regions.

Though the importance of responding to housing problems is clear, the conceptual focus on separate housing problems limits our understanding and may have substantial impact on the effectiveness of our responses. Even though we tend to focus analysis and understanding on separate and distinct housing problems (for example analysing the mental health effects directly attributable to unaffordable housing costs (Bentley et al., 2012), or the effect attributable to tenure mix on labour market outcomes (van Ham & Manley, 2009)), it is important to remember that they are often experienced *in combination* – for example many people with affordability problems also have housing quality issues, and they may also be precariously housed. Because housing fulfils many roles in individual lives – across and beyond shelter, wealth creation, ontological security, and locational advantage – households may be able to adjust to separate housing problems within a set of problems. As an example, housing affordability alone may have limited impact on a household if they are able to adjust the household budget or their rental costs. But multiple housing problems are much more difficult to adjust to. This means that a conceptual focus on housing problems may underplay their impact on people, incorrectly describe who is most vulnerable, and result in mis-formulated intervention responses. Acknowledging multiple housing problems infers the need for work that shifts conceptual focus from separate 'housing problems', to 'people at risk'. An analytical focus on people experiencing housing problems allows us to account for multiple housing problems, but also to acknowledge the structures and processes that make people vulnerable, better identify those in our population who are especially susceptible, and directly address (or at least better protect) people from the negative effects.

The paper considers Australian housing problems using the 'conceptual lens' (Smith, 2012) of housing niches. The niche framework is a valuable new conceptual approach for understanding the cumulative effects of multiple housing problems in Australia, potentially allowing us to visualise the niches where complex bundles of housing problems

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are caused, reinforced, and mediated by the social, economic and physical environment. Building on earlier work within social epidemiology, an ecological conceptualisation was compellingly first applied to housing in the US by Saegert and Evans (2003). Within Saegert and Evans' work proposing a housing niche framework, housing is regarded as being bound within a web of social conditions and fundamental causes. Here, resources, neighbourhood conditions, housing characteristics, societal and structural processes are seen to filter some groups into housing niches. Attributes within these niches may then act to reinforce existing disadvantage and inequality.

This paper utilises the housing niche framework to re-examine the pattern and accumulation of housing problems across and within a population. Applying the niche approach to a large Australian dataset, the analysis explores relative vulnerability to multiple housing problems and the implications for the design of interventions, of a focus that is shifted from separate housing problems, to people at risk.

2. 'Risk' and the conceptual evolution of housing niches

There are substantial parallels between the way that we view housing problems and the evolving conceptualisation of risk. The early work of Link and Phelan (1995) is an important basis for the modern understanding of risk. This cornerstone work moved the focus in social epidemiology research from the investigation of separate 'proximal' causes (the closer and often easier to measure items, such as poor diet or smoking) alone, and highlighted the importance of broader 'fundamental causes' (the more distant and complex items such as socioeconomic status, and welfare) in the production of ill-health. Importantly, they suggested that we could not properly understand the causes of disease without understanding the interplay of direct risk factors and social and structural causes which put people at risk of disease. These 'fundamental social causes' are well described in Phelan, Link, and Tehranifar (2010). A major policy implication of this conceptualisation is that it suggests the need for more complex responses to addressing health inequalities that go beyond addressing just intervening risk factors between the underlying cause and the health inequality (Phelan et al., 2010). The multi-dimensional understanding of risk proposed in their work is of substantial potential to housing research, challenging a consideration of the means by which housing problems, and broader vulnerabilities work together.

Just as (ill) health can be seen in the context of multiple, direct and indirect risk factors, housing problems can be conceptualised similarly. Relating Link and Phelan's conceptualisation of risk of ill-health to housing problems, Saegert and Evans (2003) described the presence of housing niches as an outcome of risk. In their model, housing niches are "particular locations in the ecology of residential settings that can be occupied by specific groups" (p. 571). They suggest that, on the basis of their individual characteristics, people are actively filtered into particular residential situations (dwellings and places) by societal processes, access to income and wealth, and the structural and policy environment. Once in a disadvantageous housing niche, the resulting locational and social exposures accumulate, and affect health, wellbeing and broader life chances.

Subsequent to Saegert and Evans' initial description of housing niches, Saegert and others have notably applied the model to analyses of poor residents (especially children) in rental housing (Saegert & Evans, 2004), mortgage foreclosure among African American households (Saegert, Fields, & Libman, 2011), and low to moderate homeowners in the US Foreclosure Crisis (Greer, Saegert, & Thaden, 2014). Throughout the development of this work they have built a picture of the structural variables that affect tenure and housing investment opportunities, broader economic influences and neoliberalism, the role of housing policies, differential access to quality, location, locational advantages, opportunities and effects of asset accumulation (Saegert & Evans, 2004, p. 83; Libman, Fields, & Saegert, 2012a, 2012b) in creating and reinforcing housing niches. This social ecological approach encourages consideration of the breadth of housing related influences on individuals and their households, rather than measuring specific parts of the relationship. Ultimately, such a focus allows the complex processes that create and reinforce disadvantage to be examined, and potentially allows us to think about policy responses in different ways (Saegert & Evans, 2003).

In concluding their 2012 paper, Libman, Fields and Saegert call for future research that applies the niche model. This current paper takes up that call in the Australian context, providing an Australian housing niche analysis. Following a discussion of the conceptual basis for housing niches, the paper describes and models a disadvantageous housing niche, examines the characteristics of key groups occupying this niche, and reflects on the implications of the housing niche framework for how we might understand and respond to housing problems.

3. Materials and methods

Filtering membership to housing niches are the cumulative social and structural processes of housing-related advantage and disadvantage (such as access to resources, advantaged neighbourhoods, and good housing). In this analysis we characterise cumulative niche risk across six characteristics – affordable and secure housing, relative locational advantage, employment in the household, welfare recipience, and disability in the household. These were selected to reflect the web of resources, neighbourhood conditions, housing characteristics and vulnerabilities that may filter people into housing-related disadvantage in the Australian context, detailed below. As will be noted in the conclusion of this paper, the analysis described here is confirmatory, undertaken to test the validity of a conceptual shift of focus from separate to multiple housing problems, and explore what this might mean for our understanding of, and responses to, accumulations of vulnerability within the population.

Housing affordability is an important membership characteristic. It is a key determinant of housing market position, and the ability to obtain adequate and appropriate housing. Housing affordability has been shown in both quantitative (Bentley, Baker, Mason, Subramanian, & Kavanagh, 2011) and qualitative (Burke, Pinnegar, & Phibbs, 2007) studies to directly affect health and wellbeing. The measure of affordable housing used in this analysis is based on the '30/40 measure', which is widely used (Baker, Bentley, & Mason, 2013; Baker, Mason, & Bentley, 2015; Mason, Baker, Blakely, & Bentley, 2013; Whitehead, 1991) as a robust and reliable estimation of housing affordability (Nepal, Tanton, & Harding, 2010). The 30/40 measure classifies individuals and their households as being in unaffordable housing if they are in the lowest 40% of the income distribution and expending more than 30% of their equivalised disposable household income for rent or mortgage costs.

Housing (tenure) security was selected as the second housing niche membership characteristic in this analysis. Tenure security has been shown across a number of studies to be an important determinant of health, wellbeing and economic security (for example Burgard, Seefeldt, & Zelner, 2012). Following previous work on insecure and precarious housing (Mallett et al., 2011), an individual was defined as living in insecure housing if they were part of a household that satisfied at least two of the following three criteria: paying more than 30% of their household income on rent or mortgage payments; in private rental; and having experienced a forced change of residence (through eviction, property becoming unavailable or being required to relocate between social housing properties) in the past 12 months. A combination of two or more of these defined housing that was insecure (for example forced moved and private rental).

A large and growing body of work highlights the importance of locational advantage/disadvantage in creating and alleviating broader vulnerabilities (see Pawson & Herath, 2015 for a comprehensive discussion). To reflect locational vulnerability in this analysis we utilise an Index of Relative Advantage and Disadvantage (IRAD). This index is

included to provide a proxy measure of the degree to which people may receive relative advantage or disadvantage from the locations in which they live. The Index of Relative Advantage and Disadvantage (IRAD) is produced (as part of a suite of relative measures) by the Australian Bureau of Statistics, and is based upon data from the Australian Census of Population and Housing – a robust and compulsory five-yearly national Census. The IRAD index summarises a number of socio-economic variables (across income, education, employment, occupation, housing, access to internet and private transport) for the population at various spatial scales (ABS, 2006) to estimate relative levels of advantage and disadvantage across the whole of Australia. By construction, the IRAD index ranks contiguous administrative units across Australia on a continuum from most disadvantaged to least disadvantaged. A low score indicates a high proportion of relatively disadvantaged people in the area while a high score indicates a high proportion of relatively advantaged people (ABS, 2011). We define those in the lowest two deciles as having this niche membership characteristic.

The presence (or absence) of employment is regarded as a key factor in creating and reinforcing disadvantage (Benach, Vives, Tarafa, Delclos, & Muntaner, 2016). Over and above the basic effects of poverty, joblessness is solidly implicated as instrumental in contributing to social and economic disadvantage. We classify people who are in households where no one is employed as having the household unemployment niche membership characteristic. Australian data allows us to distinguish unemployment from labour market non-participation (e.g. retirement) and we are therefore able to focus niche membership characteristic specifically on unemployment.

The receipt of welfare is an obvious indication of niche membership. It reflects existing vulnerability – be that the inability to work, the need for assistance, or as a general indicator of economic disadvantage. We select those who receive at least one form of government financial assistance: Receives Government Pension; Receives Government Allowance; Receives Government Non-Income Support Receives Government Benefit NEI classify Receives Government Parenting Payment. Finally, the presence of long-term disability in the household is well established as an indicator or broader disadvantage (Kavanagh et al., 2015). We classify people who report a long term disability, or have a household member with a long term disability, as having this niche membership characteristic.

The study uses data from the Household, Income and Labour Dynamics in Australia (HILDA) survey. HILDA is an ongoing, representative survey of Australian households and individuals, based upon a nation-wide probability sample. Conducted annually since 2001, there are now 14 waves of available data. Information is collected from household members aged 15 years and over using face-to-face interviews and self-completion questionnaires. This analysis utilises data from the most recently available 2014 annual wave. We restrict our analysis to respondents aged 16 years and older, this was designed to reflect earliest school leaving age, after which children could be considered adults. After exclusions and missing data the total analytical sample was 17,480 observations, within this there were 10,821 observations with at least one problem (representing 62% of the total sample).

4. Results: what is a (disadvantageous) housing niche?

When the simple accumulation of housing niche risk factors is examined across the study sample (n = 17,480), we see that the majority (n = 6659) have no housing niche risk factors, one third (n = 5904) have just one risk factor, a smaller proportion (n = 3248) have two, and just under 10% (n = 1669) have multiple (3 or more). It is this sub-sample of almost 1700 people identified with multiple housing niche risks that we are regarded as our (disadvantageous) housing niche in this analysis. We classify them as our housing niche cohort, on the basis that three or more of the measured risk factors is an accumulation sufficient to tip people into the broader vulnerabilities discussed by Saegert and Evans (2003).

When the characteristics of the housing niche cohort are compared to those of the full sample population (Table 1) there are a number of stark differences, and a few similarities. Most striking is the pattern of opposing gradients for income. There is a strong association between niche cohort membership and having very low incomes. This is perhaps unsurprising, as even though income is not a direct housing niche risk component it is implicated in at least three of the risk factors defining membership. That said, when considering appropriate intervention responses for members of the niche cohort, income must be is an important consideration. While more than 90% of the broader population have affordable housing costs, a much smaller proportion (51%) of the niche cohort have affordable housing costs. Examining housing tenure, the niche cohort group have low rates of home ownership compared to the broader population, and almost 60% of this niche group are private renters. Similarly, almost half of the cohort are not participant in the labour force, and less than one third are employed. Of note, the unemployment rate for the niche cohort is almost 6 times that of the broader population. Perhaps unsurprisingly then, the educational

Table 1
Comparison of housing niche cohort with total population, by summary characteristics.

	Housing niche cohort	Total population
% male	44.22	47.40
Age cohort (years)		
15–19	6.37	8.93
20–29	33.61	40.31
30–49	30.26	31.89
50–59	13.97	8.42
60–75	15.78	10.46
Income decile		
1	26.78	7.65
2	22.35	8.52
3	14.80	8.38
4	13.12	7.82
5	6.17	7.27
6	6.17	8.88
7	2.70	8.95
8	3.89	11.38
9	2.82	13.55
10	1.20	17.59
Housing affordability		
Affordable housing costs	51.17	90.46
Unaffordable housing costs	48.83	9.54
Tenure		
Home ownership	25.79	68.83
Rent-public	11.12	3.73
Rent-private	58.79	26.19
Other	4.29	1.25
Labour market status		
Not in the labour force	46.49	33.16
Unemployed	23.31	4.32
Employed	30.20	62.52
Household structure		
Couple with kids	20.66	41.65
Couple no kids	18.11	32.05
Lone parent	19.26	9.81
Lone person	41.96	16.48
Education		
Degree +	10.80	24.02
Diploma/adv diploma	6.24	9.01
Cert III & IV	21.97	21.91
Year 12	18.91	15.60
Year11 and below	42.08	29.46
Long term disability		
No	43.20	80.54
Yes	56.80	19.46
General health		
Fair/poor	24.19	16.51
Good or above	75.81	83.49

profile of the niche cohort shows lower rates of post high school education for the niche cohort. They are also three times more likely to have a long term disability compared to the broader population, and self-assessed general health is slightly more likely to be self-rated as 'poor' or 'fair'. The age distribution of the two groups is comparable, although the housing niche cohort is slightly older.

Overall, this brief description of the population defined within the housing niche shows them to be distinct from the broader population. Taken together, the economic, demographic, health and housing descriptors indicate substantial vulnerability within the niche cohort across low incomes, lower education levels, and poorer health. This observation is unsurprising considering niche membership is defined by a multiple accumulation of similar but still related vulnerabilities.

Importantly, though the population inhabiting the housing niche appears distinct from the broader national population, the combinations of risk factors that define their membership to the niche are strikingly different. When the combination of niche risk factors possessed by the 1669 persons in the cohort are examined, 40 distinct patterns are evident. Fig. 1 summarises these patterns – for example the most populous group is comprised of 214 people who share a common collection of housing niche risk factors. Their membership is defined by their common experience of living in households where at least one person has a disability, in areas of very low socioeconomic advantage, and receiving welfare assistance. They do however have secure and affordable

Fig. 1. An Australian housing niche, pattern of membership characteristics.

housing, and are unaffected by household unemployment. A second example grouping (and the second most common niche profile) comprises 157 people who have unaffordable housing, live in areas of very low socioeconomic advantage, and are in receipt of welfare assistance. Their tenure however is classified as secure, at least one household member is employed, and no one has a disability in the household. The remaining 38 groups are shown in the figure, and this overall view highlights the diversity of housing niche risk that can be characterised across a national population. This finding begs the important policy question – how to respond to a diverse housing niche.

5. Discussion and conclusion: responding to a niche understanding of housing problems?

This paper has reflected on the patterning of Australian housing problems – within and between people, using the conceptual lens of housing niches. This relatively simple analysis provides a challenge to the way that housing problems are currently understood and measured. To a great extent, housing research and policy is dominantly problem-focussed, whereby separate housing problems (such as affordability) are often addressed through separate policy programs, and sometimes across different policy domains (such as health or welfare). This problem-focussed approach means that multiple interventions can be separately directed to a person with multiple housing problems – each intervention blinded to another. A niche approach to housing problems necessitates a shifting of that focus onto the accumulation of vulnerabilities possessed by people. Because the focus is on people's accumulated vulnerability it suggests an alternate means to target responses, and likely a smaller (higher need) cohort for concentrated intervention.

Most simply, the analysis demonstrates the impact of targeting separate housing problems within the niche cohort. Considering housing affordability as an example, one policy focus might be to address housing affordability among lower income members of the whole sample? In the total sample population of 17,480, a problem-focussed response would suggest the targeting of housing affordability assistance to each of the 2170 persons whose housing is classified as unaffordable. The housing niche approach however, suggests that any policy response would most effectively be directed to those *within* the 2170 who *also* have other vulnerabilities (the niche cohort). Of the 2170 persons with housing affordability problems in the total sample, almost 1300 (60%) have unaffordable housing costs alone, or just one other vulnerability – and are therefore not classified as within the housing niche. A niche-informed response may selectively, and disproportionally target housing affordability assistance at the 881 persons within the housing niche cohort who *also* have unaffordable housing costs. An additional consequence of addressing housing affordability among the niche cohort would be a shrinking of the total cohort size by 586 persons – a substantial (35%) reduction. In examining housing-related vulnerabilities in sum rather than in isolation, this simple demonstration using the niche conceptual lens flags a substantial potential impact, alongside a means to better target scarce welfare intervention dollars.

The analysis also provides a view of the complexity of the experience of the housing niche across a population. Even in this limited exploration of just six membership characteristics, 40 different risk profiles were classified within the niche cohort. It is worthy of note that, beyond this initial examination of the housing niche approach, further work would include a larger collection of niche risk factors, it would be anticipated that this would reveal an even greater diversity of risk profiles.

In reflecting on the diversity of risk profiles it is valuable to consider how similar accumulations of niche risk factors are clustered and understood in other policy domains. Chronic disease comorbidity provides a useful analogous framework. Defined most simply as the "coexistence of two or more chronic conditions" (Pefoyo et al., 2015), the investigation of the patterns (or clusters) of comorbidities is a growing field of interest for health researchers (Holden et al., 2011). This is because one medical problem or illness possessed by an individual (for example
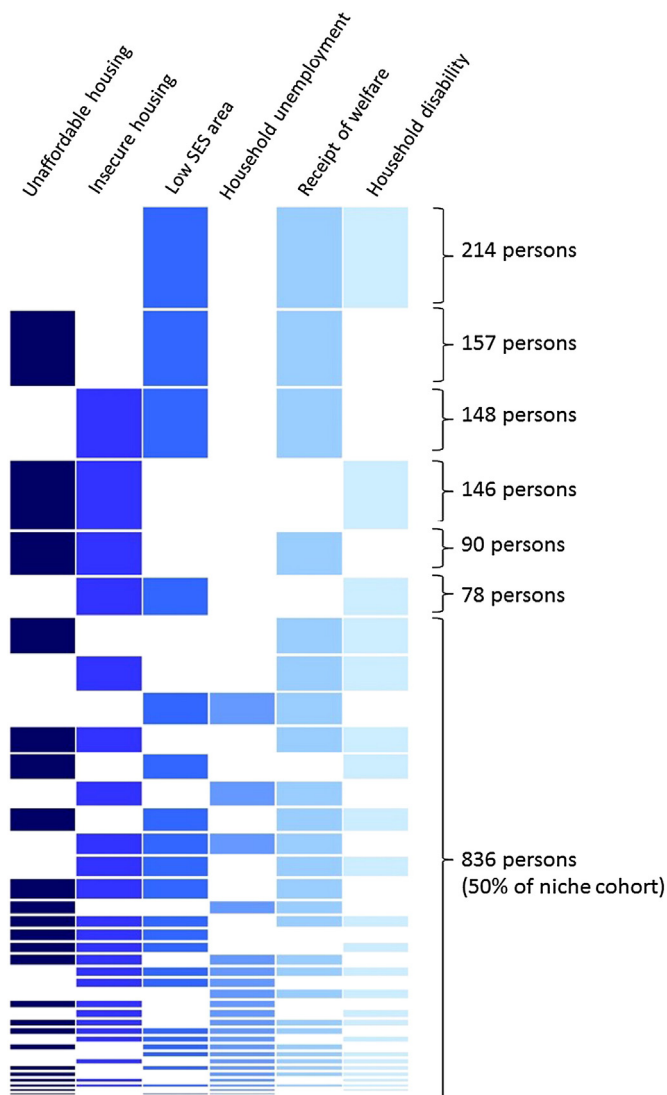
Diabetes) may interact with another (for example high blood pressure) – in known or unknown ways. Further, any treatment for one illness, may affect either a comorbidity – or be 'antagonistic' (Valderas, Starfield, Sibbald, Salisbury, & Roland, 2009) to the treatment for another. Understanding the existence or absence of clustering of particular combinations of health problems is of great potential importance to policy and prevention. Work within this field has attempted to find and characterise clusters of comorbidity, but such work tends to suggest little evidence of clusters, instead finding an 'unmanageable' number. Pefoyo et al. (2015) is a key recent example. In their large-scale Canadian analysis they found a high prevalence of comorbidity (almost one quarter of the study population), but no discernible pattern of clustering. The absence of typological clusters of common comorbidities is noted as a major challenge to population health interventions (van Oostrom et al., 2012; Vogeli et al., 2007).

This challenge of diverse comorbidity profiles almost directly mirrors the challenge flagged in this housing analysis – an unmanageable number of clusters of different niche risk factors. This makes it difficult to design population level responses. In responding to the challenge of multiple patterns of comorbidity, the health literature highlights the value of person-centred, rather than population-focussed responses (Dawes, 2010; Pefoyo et al., 2015). Similarly, the findings of this housing niche analysis also suggest the need for person-centred interventions, focussed on the relatively few people at multiple risk.

Implicit in our thinking about housing niches is an assumption that the *accumulation* of housing niche risks is more potent than the sum of separate risks – and that a common tipping point of resilience/effect may be reached. Though this simple cross sectional analysis does not explore the causal impacts of niche membership over time, previous work in the field provides a strong indication that multiple vulnerability has deleterious effects on health and wellbeing (for example Evans, Li, & Whipple, 2013). This is supported by a summary analysis of the sample, finding an inverse linear association between the number of niche risk factors, and both mental and physical health.

There are of course obvious limitations in this confirmatory analysis. We assume that a tipping point of accumulation of three housing niche risk factors is meaningful for exploring the housing niche conceptual lens, but we acknowledge the need for further more detailed work to identify and characterise a genuine tipping point (or tipping points) in the Australian and other populations. More sophisticated analyses might also differentially weight the niche membership components. Further work would also follow people over time and inter generationally to examine the ways that housing niche membership might manifest in other areas of life chance, perpetuate longer term disadvantage, or be transferred within families. We also note that the unit of analysis is the individual, and although this provides us with the ability to eventually measure individual outcomes, the analysis fails to account for potential clustering of some individuals into niche households. Further improvements to this approach would account for household clustering. This would enable the identification of niche households, and would likely have implications for the targeting of policy responses, as housing interventions may be household focussed.

This paper and the underlying analysis flags an alternate conceptualisation of housing problems, but what does this imply in policy terms? Essentially, the niche conceptualisation assumes that accumulated vulnerabilities are 'worse than the sum of their parts', and that policy priority might best be aimed at *persons* with an accumulation of problems – rather than at *separate problems*. This presents a step change challenge to government because interventions to address each different niche risk factor tend to be formulated and enacted by different parts of government. A niche-informed response may entail packages of assistance, and separate, focussed case management which is integrated across agencies. Though this infers a larger investment in welfare services, it may be partially (or even completely) offset by smaller intervention responses (or no response) for people with just one or two niche membership characteristics, because within the niche conceptualisation people are assumed to be more resilient to the effects of just one or two risks. From a policy and resource allocation perspective, this niche conceptualisation is also valuable in recasting the way that policy interventions might be provided within the welfare system. A person-centred approach infers the need to understand combinations of problems, and perhaps suggests responses that are not driven from within the silos of government policy jurisdictions. As well as inferring a redirection of policy focus away from people with one or two niche risk factors, as this analysis shows, the proportion of the population requiring niche cohort intervention is likely to be quite small. Effectively, a larger package of services would be required for a smaller (niche) cohort. This limited analysis of the Australian population indicates that a comparatively very small proportion of the population may be identified for higher level person-centred interventions, and this may be seen as attractive to governments in the rationing of scarce resources.

We end this paper with a call for new and more sophisticated work that applies the housing niche conceptual lens to consider the combined effect of housing problems on people. This simple analysis provides us with confirmation of the potential value of the approach and challenges us to consider new ways to address housing problems within the population, but further work is needed to establish causal evidence of effect, build more nuanced niche analyses, and model the outcomes of different interventions.

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