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The Living Conditions of Aboriginal People in Victoria

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Abstract

Since the home forms a central and prominent component of our lives, the quality of the housing structure and appliances within the home will thus partly reflect the quality of our lives. To this end, this paper presents information collected as part of a broader project, the Koorie Energy Efficiency Project (KEEP) which was one of 20 piloted national projects funded by the Department of Industry, Innovation and Science Low Income Energy Efficiency Program.

Based on data collected from 867 Aboriginal households in Victoria from 2013–2015, it is revealed that most homes are rented (86%) and constructed more than 20 years ago (67%). Housing constructed more than 10 years ago is at risk of not being energy efficient and typically requires extra work to be done on the home itself to ensure it is more energy efficient. However, this appears to be rarely practiced by landlords. For example, 36% of Aboriginal householders report having no insulation in their homes, and although 60% report having ceiling insulation, only 19% report having wall insulation. Adequate insulation ensures heat is retained during winter, and coolness is retained during summer, thus reducing the heating/cooling energy burden. With low insulation levels, Aboriginal tenants have little choice but to increase their energy use, or live in sub-optimal thermal comfort conditions.

Furthermore, fixed appliances that typically come with the home also impact on the quality of home life possible. For example, 12% of Aboriginal households report having no cooking appliance (no oven and no stove), while 13% report having no fixed heating appliance. Since Victoria is one of the coldest states in Australia in terms of external temperatures, having no heating appliance is problematic and could be linked to subsequent health issues.

These findings attest to the limited capacity of Aboriginal householders to genuinely improve their energy efficiency when they struggle by living in inefficient housing structures, where being tenants, they are unable to make many improvements to the home itself, and are invariably stuck with low energy efficient fixed appliances or worse, none at all, so that running small energy hungry appliances becomes the only viable alternative.

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1. Introduction

Aboriginal and Torres Strait Islander Peoples (hereafter referred to as Aboriginal Peoples) represent less than 3% of the Australian population [1] and yet are known to struggle with many social and health issues in proportions much higher than the rest of the Australian population. Numerous reports, including the latest *Closing the Gap* report [2], attest to the discrepancies in mortality, health, employment and education, with little progress towards improving the situation. For many, their quality of life and well-being are constantly threatened. For example, in Australia, Aboriginal youth, particularly male, commit suicide at a higher rate than any other youth in the world [3]; an Aboriginal woman is 34 times more likely to be hospitalised from domestic violence than a non-Aboriginal woman [4]; an Aboriginal person is 15 times more likely to be imprisoned than a non-Aboriginal person, and Aboriginal youth are 25 times more likely to be imprisoned compared with non-Aboriginal youth [5]. Since most targets for *Closing the Gap* remain unmet, and that some outcomes are worsening, the situation has been described as a ‘national crisis’ [3,4,5]. The gulf between the living standards of Aboriginal Peoples and the rest of Australia is uncomfortably wide and growing larger. It is evident from these figures that what is being done, by and large, is not working well enough or not working at all.

In the context of residential energy, further hardships and disadvantage are being experienced by Aboriginal people. In 2012, the Consumer Utilities Advocacy Centre (CUAC) identified a number of barriers that exclude Aboriginal participation in the energy market, creating disadvantage and adversely affecting Aboriginal health and wellbeing [6]. This includes issues of debt and affordability, household energy consumption, navigating an increasingly complex energy market and the causal link between energy usage and living standards. Continually rising fuel prices, coupled with a highly complex energy sector in Victoria, amplifies their financial struggles; discomfort at home; inability to care for children and the elderly; poor health and general lower quality of life creating energy-related disadvantage. CUAC’s research revealed that Aboriginal consumers in Victoria were being disconnected and restricted from energy and water services in higher numbers than the rest of the population [6].

In an effort to understand some of the reasons behind the energy-related disadvantage experienced by many Aboriginal Victorians, and as part of a broader project to improve their plight, the Koorie Energy Efficiency Project (KEEP) was formed, funded by the Department of Industry, Innovation and Science as part of the national Low Income Energy Efficiency Program (LIEEP). KEEP involved the collaboration between six not-for-profit organisations, three of which were Aboriginal. The purpose of this paper is to report on part of the findings of KEEP as they relate to the home. Since the home forms a central and prominent component of our lives, the quality of the housing structure and appliances used within the home may shed light on the reasons why many Aboriginal Victorians struggle with energy bills and energy efficiency.

2. Methodology

At the start of the project, KEEP project partners decided that a direct approach to the home would be needed to provide proper support. It was important that the Aboriginal householder felt comfortable and were in a position to learn more about energy usage in the home and how to lower their bills. Partners decided to train several Aboriginal people on household energy efficiency and on how to deal with the energy sector (*e.g.*, consumer rights, hardship programs, advocacy, *etc.*). These trainees became the project’s Community Development Officers (CDOs) so that Aboriginal people were visiting the homes of Aboriginal households to have a 1-2 hour one-on-one exchange. During each household visit, CDOs provided tips on how to lower energy use in the home (*e.g.*, lower the heating thermostat, turn off lights when leaving a room, minimise the use of dryers, and so on). Invariably, the CDO was asked to help the householder with their current bill or disconnection notice. In those cases, CDOs would contact the

household's energy provider and advocate on behalf of the householder. CDOs were also responsible for collecting data about the home and householder. To ensure comparability among LIEEP projects, the Commonwealth (the DIIS) requested that every project asks a common set of questions (called 'schema data'). Specific details were thus collected regarding insulation, home features, appliances and householder demographics. As part of KEEP, CDOs asked the householder questions and recorded their verbal responses, producing self-report survey data. A total of 867 usable responses were obtained (from a sample of $n=1124$), representing Aboriginal households across Melbourne metro, regional and rural Victoria. The sample is geographically and demographically spread such that it is deemed representative of the Victorian Aboriginal population.

3. Results / Discussion

3.1. Victoria at a glance

Victoria is uniquely positioned with regard to the energy sector with approximately 26 retailers and 5 wholesalers vying for the consumer energy market. Further, the use of electricity and gas in the home are unique. For example, the Australian Bureau of Statistics (ABS) reveal that Victorians use the highest proportion of gas for home heating compared with other states and territories (*e.g.*, 65% in VIC compared with 25% in NSW) [7]. Also, almost 70% of Victorian households use gas for hot water, which is the highest in the country. They also use the least amount of electricity to heat water (28%) compared with other states and territories (*e.g.*, TAS 90%, NSW 66%) [7]. Further, Victorians spend more on residential energy, on average, than most states and territories (\$46 per week) surpassed only by ACT households (\$50 per week) [8]. This means that the average Victorian home is subject to a higher weekly energy bill and higher expenditure on gas than homes elsewhere. The implications for low-income households is that energy bills will represent a larger proportion of their disposable income, that this proportion is likely to rise as fuel costs rise. It also suggests that efforts to reduce consumption and thus bills in Victoria will have less effect in homes that do not use gas for heating. Given that Victoria experiences 4.5 times more cold days than hot, and that gas use increases by 158% in the cold months [9], low-income households particularly struggle through the colder months of the year in terms of affording energy bills. The risk of people remaining cold in their homes by not turning on the heater in order to cut back on energy use and bills carries dangerous health consequences, particularly as previous findings have shown that people are more likely to die in their homes due to cold than heat [10]. It appears that efforts to support Aboriginal households to become more energy efficient would help on many fronts, not least of which is improvements in their health and well-being.

3.2. KEEP findings

Understanding the home and household characteristics for Victorian Aboriginal households may help shed further light on this situation. Results from KEEP reveal that 86% of participants are renting their home and only 12% own their home (either outright, or with a mortgage). These figures are in stark contrast to overall population figures, where 25% of the population rent and 67% are home owners [11]. The majority of Victorian Aboriginal households that participated in KEEP report living in dwellings that are between 10-40 years old (78%). Specifically, 67% live in dwellings that are older than 20 years, 37% live in dwellings that are older than 30 years, and almost 14% live in dwellings older than 40 years (see Figure 1). Given that energy efficiency regulations in Victoria started in 2005 [9], this means that most Aboriginal people in Victoria live in housing that is not energy efficient. This situation is compounded by a previous result reported above, that most Aboriginal householders are tenants, as they are unable to modify structural aspects of the home (*e.g.*, major retrofits, including insulation), and similarly, are unable to upgrade fixed appliances (*e.g.*, heating, hot water services, cooling, *etc.*) or engage in new energy technology such as solar, due to being non-owners of the property. It is the combination of these two elements (tenants in old housing) that partly contributes to Aboriginal Peoples in Victoria being at a disadvantage regarding household energy efficiency, compared with the rest of the population.

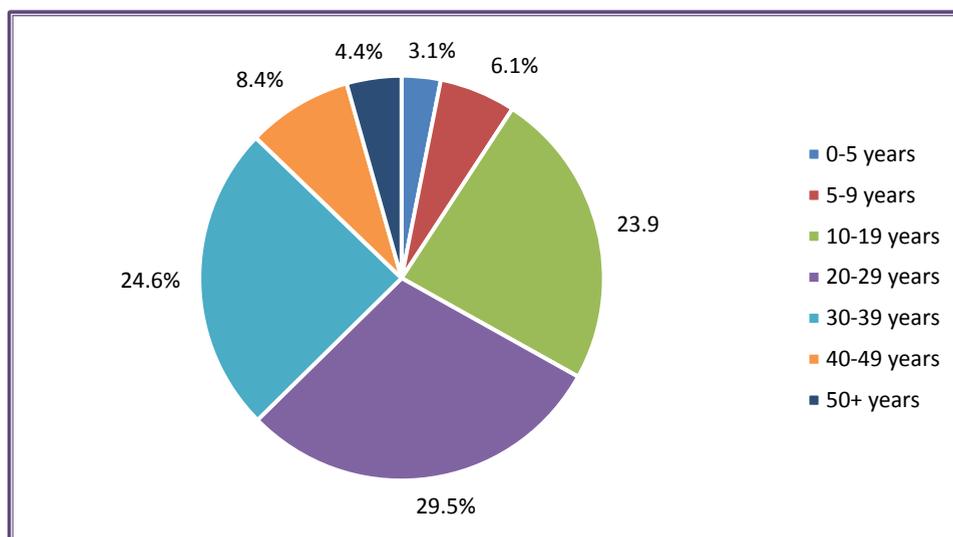


Figure 1: Distribution of Dwelling Age of Victorian Aboriginal Households

Having a well-insulated home can save up to 40% in heating and cooling bills [12] and so is an important feature to have if households wish to save energy and lower their bills. Four key types of insulation are possible in most homes, including ceiling, wall, floor and water-heating insulation. Ceiling insulation is vital as it is reported that up to 42% of heat in the home is lost through the roof [13]. KEEP participants reveal that, in total, 64% of Aboriginal households have some form of insulation, however they also report low frequencies of insulation in all categories:

- ceiling insulation: 60%
- wall insulation: 19%
- floor insulation: 6%
- water-heating insulation: 0.03%

While ceiling insulation is the most frequently reported type, it still means that more than one third of homes report having none. Furthermore, for insulation to remain effective and keep drafts and gaps at bay, it needs to be topped up every 15 years or so [13]. However, given that most dwellings are over 20 years old (67%) it is likely that most ceiling insulation has not been topped up by landlords since construction and that the effectiveness of the insulation is compromised with regard to assisting with energy efficiency. The lack of other forms of insulation further implies that most Aboriginal households are faced with draft filled homes that will keep energy bills higher than they need to be, regardless of minor in-home behavioural adjustments that are made in an effort to reduce energy use/bills. Of great concern is that a significant proportion of KEEP participants reported their homes as having no insulation whatsoever (36%).

Given this situation, it is even more important that heating and cooling appliances in the home are energy efficient, as they represent approximately 40% of energy usage/bills [12]. It is also important that other appliances which are used regularly (*e.g.*, refrigerators) are energy efficient, and that those appliances which are very expensive to run (*e.g.*, dryers, blow-heaters) are used infrequently, in order to keep bills down. On average, it was found that KEEP participants have one refrigerator, one TV, one or two laundry appliances (washing machine and dryer), several cooking appliances and no computer (see Figure 2). Of concern is that some households report having no appliances that are usually considered essential: 7% report having no refrigerator ($n=62$); 12% report having no stove or oven ($n=106$); 11% report having no television ($n=95$). The implication is that these homes either make do with alternative, and possibly more expensive, options, or go without and live in sub-optimal conditions.

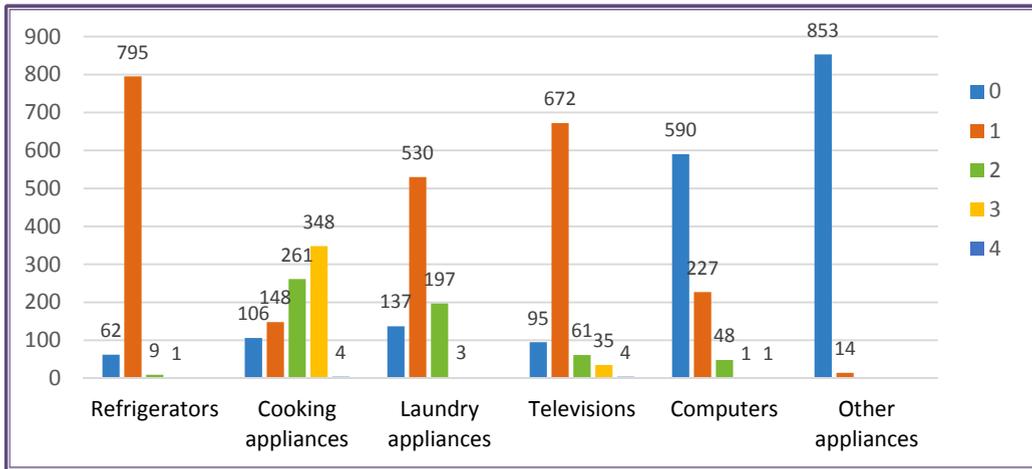


Figure 2: Frequency of Different Types of Appliances per Household

When examining heating more closely, Aboriginal households report that gas heating is the most common source (55%) and that most homes use a single source of heating (95%). The high use of gas in Victoria is problematic as gas is no longer considered to be the most cost effective way to heat homes and water. The two reasons for this is that gas prices have increased dramatically over recent years and electric appliances have become much more energy efficient [14]. If gas heating continues to rise, then its high prevalence in older housing stock presents an ever increasing burden to tenants, and in particular, to many Aboriginal households already struggling to pay their bill. It also implies that reducing gas usage should take priority over reducing electricity usage in gas-dependent homes and that capturing only electricity usage will be very limited in terms of reflecting household energy consumption, especially in Victoria.

Additionally, 12.5% of households report having no heating, while almost 20% report using energy-hungry appliances to stay warm (13% report using electric blow heaters; 6% report using bar or column oil heaters). This means that more than one third of Aboriginal households in Victoria have inadequate heating and little opportunity to reduce their energy consumption. The last aspect of interest regarding appliances is their energy star rating. From Figure 3, it is evident that most Aboriginal households have appliances with only 2-star or 3-star energy efficiency ratings. Although very little information was captured about the energy star rating of appliances, it appears that appliances used in most Aboriginal households are not particularly energy efficient. This further exacerbates the energy-related disadvantage they experience.

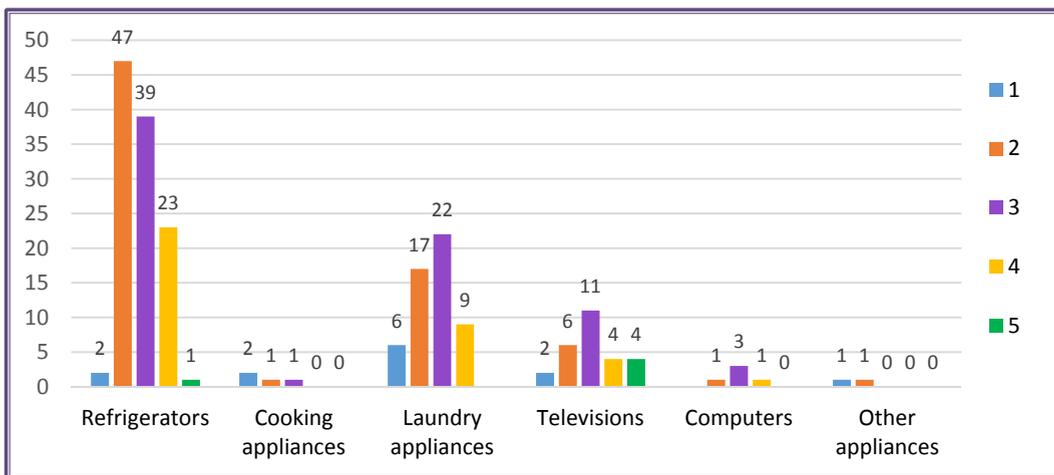


Figure 3: Energy Star Rating of Different Types of Appliances

4. Conclusion

Energy-related disadvantage for Aboriginal Peoples is complex. It is not simply a matter of ‘do this and all will be well’. Many LIEEP projects involved pursuing energy efficiency behavioural changes in the home with the assumption that if householders implemented certain behaviours, their energy usage and corresponding bills would be significantly reduced. For the LIEEP projects, some households indeed experienced significant reductions. However, a scan across many LIEEP project findings, drawn from individual final reports, indicate that behaviour change (only) programs, on average, reduced bills by less than 10% and for some projects, less than 5%. A caveat here is that like KEEP, some projects only used electricity energy consumption and bills in their analysis and excluded gas consumption and bills (although tips were provided in the home for both). This means that energy and bills may have been lower than what was captured.

Like many other vulnerable groups, Aboriginal Peoples are usually tenants and thus have limited or no capacity to make structural changes to the home to improve its energy efficiency. As tenants in old, draughty, barely insulated homes, Aboriginal householders in Victoria invariably resort to using energy-hungry appliances to keep warm due to insufficient or ineffective fixed heating appliances in their home, or they live in sub-optimal thermal conditions, which carries significant health risks for the whole family.

Homes in Victoria built before 2005 need to be upgraded with energy efficiency retrofits such as updated insulation (ceiling, walls and hot water system at the least), energy efficient hot water systems, energy efficient heating and cooling systems, energy efficient window coverings and door/window draught stoppers. They would also benefit from solar installations which would provide an alternative, low cost, energy source. For low income households, this generally means that the responsibility for this task rests with landlords. Since participants in the KEEP project were long-term tenants, mostly living in older non-upgraded homes, then we can assume that landlords are not acting on this task and are thus subverting their responsibility. Additionally, as the adoption of alternative energy sources spreads (e.g., solar panel/battery installations) it is likely that tenants will be the last to receive such upgrades, further adding to the energy bill burden. These findings can be used by relevant government bodies to use regulation and policy to mitigate and reverse this likely trend, though they should be mindful that many ‘landlords’ of low income tenants are government bodies themselves.

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