Planning legal assistance services by area: is SEIFA the answer?

Julie People, Maria Karras, Christine Coumarelos, Catriona Mirrlees-Black and Stephanie Ramsey

Abstract: *Results from the Legal Australia-Wide (LAW) Survey demonstrate that certain disadvantaged groups are particularly vulnerable to legal problems. Thus, data that identify the demographic groups with high legal need and pinpoint how to reach these groups would clearly facilitate planning effective and efficient legal assistance services within a jurisdiction. While this link between disadvantage at the individual level and the experience of legal problems is well established, less is known about the relationship between legal problems and the level of disadvantage in different geographic areas. The present paper examines whether or not area-level disadvantage can be used to identify people who have high legal need. The paper examines this question by using the most widely recognised measure of area-level disadvantage in Australia – the Socio-Economic Index for Areas (SEIFA).*

The paper outlines the nature and strength of the relationship between SEIFA and legal problems. Unlike individual measures of disadvantage, SEIFA was only weakly related to the experience of legal problems. It is concluded that SEIFA should not be used on its own to plan legal assistance services, and is likely to be most useful when supplemented with individual-level data on disadvantage, other data sources and local information regarding existing services and barriers.

Background

Research conducted in Australia and overseas over the past 20 years has yielded a substantial evidence base regarding the public's experience of legal problems.[i] One of the most recent contributions to the body of legal needs research and the largest in scale is the 2008 Legal Australia-Wide Survey (LAW Survey) (Coumarelos, Macourt, People, McDonald, Wei, Iriana, & Ramsey 2012).

In line with earlier research (e.g. Currie 2007; Genn 1999; Pleasence 2006), the LAW Survey demonstrated the strong link between disadvantage and vulnerability to legal problems (Coumarelos et al. 2012). The LAW Survey found that the prevalence of legal problems was higher in particular for people with a long-term illness or disability (hereafter people with a 'disability'), people who had lived in disadvantaged housing, single parents and people who had been unemployed. In the case of disability, follow-up analyses showed that increased prevalence was generally evident for different types of physical illness, but particularly apparent for mental illness (Coumarelos, Pleasence & Wei 2013). Furthermore, vulnerability to legal problems for many disadvantaged people is coupled with low capacity to avoid or effectively deal with such problems, as well as particular barriers to accessing mainstream legal assistance (e.g. Forell, McCarron & Schetzer 2005; Karras, McCarron, Gray & Ardasinski 2006). Legal problems were also found to cluster together, with just 9 per cent of LAW Survey respondents accounting for 65 per cent of reported legal problems (Coumarelos et al. 2012).

However, Coumarelos et al. (2012) found that a few indicators of disadvantage were not consistently linked with increased legal problem prevalence. People with government payments as their main source of income, low education levels or a non-English main language did not typically have increased prevalence according to general measures of legal problems. Nonetheless, some of these disadvantaged groups had elevated experience of particular types of legal problems even though they did not have elevated experience of legal problems overall. For example, respondents whose main source of income was government payments experienced legal problems that tended to reflect their socioeconomic disadvantage, including family problems concerning children and relationships, government problems related to the receipt of government payments, health problems and rights

problems related to discrimination and unfair treatment by police. In contrast, wealthier respondents tended to experience legal problems that appeared to reflect higher rates of economic activity and workforce participation, including consumer, money and employment-related legal problems.

Due to the LAW Survey and other research, many aspects of the Australian public's experience of legal problems are now relatively well understood. Drawing on the existing research, the Law and Justice Foundation of New South Wales has proposed a comprehensive framework to inform the planning and delivery of legal assistance services (Pleasence, Coumarelos, Forell & McDonald 2014). In this report, Pleasence et al. (2014) argue that legal assistance services should, as far as is practicable, be:

- **targeted** to reach those with the highest legal need and lowest capability

- **joined-up** with other services to address complex life problems

- **timely** to minimise the impact of problems and maximise the utility of services

- **appropriate** to the needs and capabilities of users.

A number of tools and data sources will be required to ensure that legal services can be designed with these characteristics in mind. For instance, to target services to those most in need and with the lowest capability requires the identification and locating of both high legal need and gaps in services currently provided. In addition, barriers to accessing legal services such as distance, cost, low capability and any cultural barriers will need to be considered.

It is well recognised that the vast distances in many rural and remote areas of Australia provide numerous challenges to the equitable provision of services and infrastructure. These challenges can be compounded by the concentration of populations with high legal needs and low capability in some remote areas (cf. Pleasence et al. 2014). Consequently, legal outreach is a key method for reaching disadvantaged groups by bridging access barriers such as distance, and limited personal resources and capability. However, given finite resources, the question is how to optimise the location of outreach services and incorporate them effectively and affordably (Pleasence et al. 2014). It is therefore of value to consider the extent to which individual and area-level measures of disadvantage

can contribute to the identification of legal need and the planning and design of legal services in different geographical areas.

Individual and area-level measures of disadvantage

As noted above, research has demonstrated the strong link between certain indicators of disadvantage and vulnerability to legal problems (e.g. Currie 2007; Coumarelos et al. 2012; Genn 1999; Pleasence 2006). Generally, however, such legal needs research has considered disadvantage at the individual level, such as an individual's disability status, employment status, family status and income. In contrast, links between vulnerability to legal problems and area-level factors (e.g. factors associated with the area in which people live) have been examined by relatively few studies (e.g. Coumarelos et al. 2012; Dignan 2006; Maxwell et al. 1999). When area-level factors have been examined, they have generally involved a comparison between different geographic locations, such as urban and rural areas, and have produced mixed results about the link between geography and legal problem experience (Coumarelos et al. 2012, Dignan 2006; Maxwell et al. 1999).

Commissioned by the National Association of Community Legal Centres (NACLC), the National Legal Needs & Strategic Planning Framework reports (including the Strategic Planning Toolkit) used small area modelling to estimate legal need in local government areas in Australia.[ii] These reports primarily drew on the English and Welsh Civil and Social Justice Surveys and to a lesser degree on the survey of legal needs in NSW published by the Law and Justice Foundation of New South Wales in 2006. Small area modelling uses data from a large area (e.g. an entire jurisdiction) to estimate rates for small areas (e.g. postal areas). Given this modelling relies on estimation, it is useful to provide information on the likely precision of the estimates, such as the range or 'confidence interval' within which the estimate for each small area may realistically fall (Whitworth 2013). Such information also allows comparison between areas to determine whether any apparent differences in their estimates are reliable or 'statistically significant' (cf. Whitworth 2013). The reports do not discuss whether the differences between the estimates of legal need for different areas are statistically significant (cf. Whitworth 2013). In addition, as the modelling relies largely on English and Welsh survey data, variables related to legal need in the Australian context such as

Indigenous status and remoteness could not be properly considered.

The relationship between legal problem prevalence and the level of relative disadvantage within a geographic area has not previously been tested using data collected from the LAW Survey.

The Socio-Economic Index for Areas (SEIFA), developed by the Australian Bureau of Statistics (ABS), summarises the socioeconomic conditions of geographic areas within Australia (ABS 2006). There are four different indexes, each capturing a different aspect of relative socioeconomic disadvantage. SEIFA indexes are rankings. Each index ranks different geographic areas of Australia according to a score that is created for the area based on characteristics of people, families and dwellings within that area. The Index of Relative Socio-Economic Disadvantage (IRSD) summarises a range of information about the economic and social resources of people and households within an area. The SEIFA IRSD score (hereafter referred to as 'SEIFA') summarises variables derived from the Census that indicate disadvantage, such as low income, low educational attainment, unemployment, disability, single parenthood, rented housing, Indigenous background, poor English proficiency, and dwellings without motor vehicles or internet connection.[iii]

It is worth noting that only some of these indicators of disadvantage were shown by the LAW Survey to have strong links to increased legal problem prevalence (particularly disability, single parenthood, housing circumstances and unemployment). The rest of these indicators either failed to show such links consistently or were not examined by the LAW Survey (cf. Coumarelos et al. 2012). The SEIFA score for an area represents the average level of socioeconomic disadvantage of all the people who reside in that area, not the level of disadvantage of the individual people themselves (Adhikari 2006). A low SEIFA score indicates relatively greater disadvantage compared to other areas, while a high score indicates a relative lack of disadvantage compared to other areas.

Planning legal assistance services across Australia in accordance with the framework outlined by Pleasance et al. (2014) and targeting available resources to people who need them most requires an understanding of gaps in legal services, as well as information about the legal needs of target clients.

Coumarelos et al. (2012), among others, have shown that disadvantaged people have a high level of legal need. Therefore, it is important to consider individual-level measures of disadvantage, such as disability status, family status, housing circumstances and employment status. A measure that can identify geographic areas where there is high legal need could also play an important role in planning and targeting legal assistance services. As a widely recognised and used measure of area-level disadvantage, it is important to examine whether SEIFA can provide a useful measure of identifying areas of high legal need.

New analyses from the LAW Survey

This paper uses data collected from the LAW Survey along with SEIFA to determine the extent to which an individual's experience of legal problems can be predicted by the level of disadvantage in the postal area where they live. We examined both 'general' measures of legal problem prevalence and measures of the prevalence of specific types of legal problems. The relationships between the experience of legal problems and SEIFA are then discussed to assess whether SEIFA can be useful in identifying areas of high legal need.

The relationship between SEIFA and the prevalence of legal problems in general
Several analyses were conducted to examine whether there was a relationship between SEIFA and various 'general' measures of legal problem prevalence – that is, if any legal problem was experienced, if any substantial legal problem was experienced, if multiple legal problems were experienced and the total number of legal problems experienced.

No clear or consistent relationship at this broad level was found. That is, an area's relative ranking of disadvantage according to SEIFA was not found to be consistently associated with the prevalence of legal problems experienced by people living in that area.[iv] These findings appear to contrast with LAW Survey findings that some individual indicators of disadvantage showed strong links to general measures of legal problem prevalence (Coumarelos et al. (2012). However, as noted above, SEIFA includes some indicators of disadvantage – low income, low education levels and a non-English main language – that failed to show relationships with the four general measures of legal problem prevalence using LAW Survey data.

The relationship between SEIFA and the prevalence of specific legal problems types
The LAW Survey measured 129 specific types of legal problems, which were categorised into 12 broad problem groups and 27 problem subgroups for various analyses. Using regression analysis on each of the 12 broad problem groups, Coumarelos et al. (2012) demonstrated that prevalence varies by type of problem. As noted above, some legal problems are more likely to be experienced by people with particular types of disadvantage. In addition, some of the indicators of disadvantage that failed to show strong links to increased legal problem prevalence according to general measures were nonetheless related to increased prevalence of specific types of legal problems (Coumarelos et al. 2012). For these reasons, it was also important to examine whether SEIFA is related to the experience of particular types of legal problems, as these relationships may not be detected by the general measures of legal problem prevalence.

Twelve multilevel binary logistic regression analyses were therefore conducted to determine whether there was a relationship between SEIFA and the experience of each of the 12 broad problem groups examined by Coumarelos et al. (2012), as shown in Table 1.[v] It is worth noting that there were insufficient numbers to conduct similar regression analyses on each of the 27 legal problem subgroups examined by Coumarelos et al. (2012). Each of the 12 regression analysis examined the relationship between SEIFA and the experience of legal problems independently of the effects of gender and age. Gender and age were included because these variables were previously found to be significantly related to legal problem prevalence, with age in particular having a strong association (Coumarelos et al. 2012).[vi] SEIFA was split into quartiles[vii] for all analyses, with quartile 1 representing the most disadvantaged geographic areas and quartile 4 representing the least disadvantaged geographic areas.

The regression analyses showed significant relationships between the level of socioeconomic disadvantage of a geographic area and the prevalence of 9 of the 12 legal problem types: accidents, consumer, credit/debt, crime, family, health, housing, money and rights problem types. (See Appendix for full results and Table 1 for a summary.)

The relationship between SEIFA and the nine problem types were, however, not all in the direction of higher legal need in disadvantaged areas. There were no significant relationships between SEIFA and the employment, government and personal injury problem types.

Specifically, compared to people living in areas with SEIFA scores within quartile 4 (the least disadvantaged geographic areas of Australia), people living in areas with SEIFA scores within:

- quartile 1 (the most disadvantaged areas) were significantly less likely to experience housing problems
- quartiles 1 and 2 were significantly less likely to experience consumer and money problems
- quartiles 1, 2 and 3 were significantly less likely to experience accident problems
- quartile 1 were significantly more likely to experience credit/debt and family problems
- quartiles 1 and 2 were significantly more likely to experience crime and rights problems
- quartiles 1 and 3 were significantly more likely to experience health problems.

A number of reasons may explain the above patterns. First, people living in more disadvantaged areas may be less likely to experience certain types of housing, consumer, money and accidents problems because they have less opportunity to engage in activities that may lead to these types of problems, such as owning a house, purchasing large amounts of consumer

goods and services, owning a business or driving a motor vehicle. It is worth noting in this context that the LAW Survey captured both legal problems that are likely to arise directly out of disadvantaged circumstances and legal problems that more often arise from more affluent circumstances, reflecting greater economic activity and economic independence. Some of the 12 broad problem groups are less homogeneous than others in their mix of 'disadvantaged' and 'affluent' problems. For example, the housing problem group includes both problems related to renting public housing and problems which can arise for home owners. Similarly, the consumer problem group covers problems related to paying for basic services such as utilities and problems associated with buying luxury goods. As a result, the relationship of each problem group to disadvantage is likely to reflect its constituent problems. As already noted, there were insufficient numbers to conduct the current regression analyses on smaller, more homogeneous problem categories (e.g. the 27 problem subgroups).

Second, more disadvantaged areas have been defined by a number of factors including low incomes, lower levels of employment, lower levels of education, poor health and higher levels of single parenthood (ABS 2006), plus these areas also are more likely to experience higher rates of crime (Weatherburn 2001). Therefore, people living in these areas may be more likely to experience problems related to credit/debt, family, health, crime and rights.

Table 1. Percentage of respondents with legal problems, by problem type and SEIFA quartile

Problem type	SEIFA Quartile 1 (Most disadvantaged)	SEIFA Quartile 2	SEIFA Quartile 3	SEIFA Quartile 4 (Least disadvantaged)	N
Accidents	5.8 *	6.6 *	7.7 *	9.7	1,601
Consumer	19.7 *	19.0 *	21.1	21.9	4,254
Credit/debt	7.5 *	5.8	6.3	6.3	1,323
Crime	15.3 *	14.8 *	14.5	13.1	2,945
Employment	6.3	6.6	6.2	5.9	1,286
Family	5.9 *	5.2	5.0	4.3	1,032
Government	10.5	11.1	10.3	10.9	2,217
Health	4.6 *	2.9	3.3 *	3.0	690
Housing	11.0 *	11.3	11.7	12.6	2,428
Money	4.2 *	5.0 *	6.1	6.8	1,179
Personal injury	6.9	7.3	7.2	6.6	1,441
Rights	6.4 *	6.6 *	5.8	4.8	1,200

Note: N = 20 663 respondents.
* Indicates that the regression analyses revealed a significant difference (p<0.05) in the prevalence of legal problems compared to respondents living in the least disadvantaged areas of Australia (SEIFA Quartile 4).

How strong is the relationship between SEIFA and legal problems?

As already noted, SEIFA was not significantly related to the prevalence of three problem types: the employment, government and personal injury problem types. In addition, while SEIFA was significantly related to the prevalence of the other nine problem types, these relationships were generally not particularly strong.[viii] Table 1 supports this notion, and shows that, for each problem type, the percentage of people experiencing that type of problem did not vary markedly by SEIFA quartile. For example, for credit/debt problems, 7.5 per cent of people living in the most disadvantaged areas (quartile 1) experienced credit/debt legal problems, compared to 6.3 per cent of people living in the least disadvantaged areas (quartile 4). This indicates that although significant differences were detected by the regression analyses, in practice, these differences are relatively small. The differences in the percentages of people who experienced legal problems of each problem type were more pronounced when respondents were categorised using individual-level demographic variables (see Coumarelos et al. 2012) rather than SEIFA. For example, regression analyses by Coumarelos et al. (2012) indicated that legal problems concerning credit/debt were more likely to be experienced by people with a disability and by people who been unemployed than by others. Credit/debt problems were experienced by 10.7 per cent of people with a disability compared to 5.4 per cent of those without a disability, and 13.1 per cent of people who had been unemployed compared to 5.6 per cent of people who had not been unemployed.

SEIFA is susceptible to having a weaker relationship with legal problem prevalence than individual-level measures of disadvantage because it is an *average* measure of the disadvantage of *all* people within a geographic area and not all individuals within an area are necessarily disadvantaged. Indeed, it is recognised across sectors such as heath, justice and welfare that using measures like SEIFA can result in an ecological fallacy – a conclusion which is false because it is based on attributing aggregate characteristics of particular areas to individuals (see Baker & Adhikari 2007, McGee, Wickes, Corcoran, Bor & Najman (2011). This may explain the smaller differences in the percentages of people experiencing problems between SEIFA quartiles than between categories of individual-level measures of disadvantage (e.g. people with a disability versus others).

In addition, the present analysis examined the relationship between SEIFA and legal problem prevalence at the postcode level, as this was the smallest spatial unit that was measured by the LAW Survey. It is possible that the relationship between SEIFA and legal problem prevalence would be stronger for smaller geographic areas.

Apart from the varying levels of disadvantage experienced within a particular geographic area, there are a number of other possible explanations for the relatively weak relationship between SEIFA and legal need. First, although LAW Survey analyses found that the link between legal need and disability was particularly strong in the case of mental illness (Coumarelos et al. 2013), SEIFA does not distinguish between physical and mental illness. In addition, two of the indicators of disadvantage included in SEIFA were found by the LAW Survey to be linked to decreased reporting of legal problems – namely, low levels of education and having a non-English main language (Coumarelos et al. 2012). As Coumarelos et al. (2012) argued, it is unclear whether the low reporting levels of these disadvantaged groups reflect low prevalence of legal problems (e.g. due to less opportunity to participate in various economic or social activities that give rise to legal problems) or reflect a reduced ability or willingness to conceptualise various situations as constituting problems. Pleasance et al. (2012) further elaborate on the complex relationship between social participation and legal needs. Importantly, they note that while low levels of social and economic participation may lead to a lower number of certain types of legal problems, the legal problems experienced will take a greater toll due to limited resources and reduced legal capability of such isolated groups.

Conclusion

The above results demonstrate that measures of an individual's level of disadvantage are better at predicting that individual's likelihood of experiencing legal problems than SEIFA. While SEIFA does detect differences in legal problem prevalence across 9 of the 12 problem types, these differences are relatively small, and in terms of planning for service delivery, may be less informative. Overall, an individual's personal experience of certain types of disadvantage (in particular disability, disadvantaged housing, single parenthood and unemployment) is a more useful measure for whether that individual is likely to

experience legal problems than the level of socioeconomic disadvantage in the area in which they live. Because some people who live in disadvantaged areas are not disadvantaged and conversely, some people in less disadvantaged areas are highly disadvantaged, conclusions based solely on SEIFA do not necessarily apply to every person living in an area and can be misleading (Baker & Adhikari 2007).

Although the relationships between SEIFA and legal problem prevalence were relatively weak in the present study, the results are nonetheless broadly in keeping with previous research showing a link between disadvantage and increased legal need. Previous research has similarly found that disadvantage is more likely to be associated with the increased prevalence of some legal problem types than others, possibly due to disadvantaged circumstances providing less opportunity to engage in activities that can lead to certain problems.[ix]

Implications for service planning and delivery
The relationship between SEIFA and legal problems did not prove to be strong or straightforward. For this reason, SEIFA should not be used on its own to identify areas of high legal need. SEIFA data can be used as a first step in identifying areas that may experience high or particular legal needs, provided that other data sources are drawn on to ensure the targeting of legal services to those who are most in need. Without these additional sources, pockets of high disadvantage and legal needs may well be missed while areas of lower need receive services. In addition to an area's SEIFA score, any available demographic data such as housing and social security data, particularly if these are available for smaller areas, will be important to understand the particular type and distribution of disadvantage experienced in an area. For example, social security data and ABS data may be useful for targeting those with a disability and/or single parents.

As argued above, particular measures of disadvantage, such as disability, disadvantaged housing, single parenthood and unemployment, where available, will be very important to consider in the planning and delivery of services as it is these measures that were found to most strongly predict the likelihood of experiencing legal problems.

Further, as Pleasance et al. (2014) note, the 'infrastructure' or 'environment' of an area also needs to be closely investigated to plan legal services effectively. A local understanding of service gaps and barriers and cultural factors will be crucial, such as that offered by the Cooperative Legal Services Delivery (CLSD) Program in NSW. The Cooperative Legal Service Delivery (CLSD) Program is a regionally-based approach to legal service delivery in NSW that aims to improve outcomes for economically and socially disadvantaged people by building cooperative and strategic networks of key legal services and community organisations.[x]

CLSD networks draw on data from sources such as the ABS, the Law and Justice Foundation of New South Wales and Legal Aid NSW to inform planning in their particular region. In addition, through sharing information, these networks are a key forum for understanding the existing legal and non-legal service environment, and the physical and cultural barriers that may exist to accessing these services in a particular region. Such data and contextual information clearly facilitate the appropriate and efficient planning of services to those most in need. Systematic issues identified through the CLSD Program are reported to the NSW Legal Assistance Forum.

Another approach, outlined by Pleasance et al. (2014), to identifying those who are at risk of legal problems is to focus on key transition or crisis points in vulnerable peoples' lives rather than considering where they reside. Transition or crisis points can include major life changes in health, housing, employment and family status or accidents or criminal activity. Targeting the types of organisations that vulnerable people are likely to come into contact with during these times of crisis or transition (such as courts, family relationship centres, domestic violence support centres, homeless shelters, community health centres) may provide an ideal opportunity to reach disadvantaged people at a time of emerging or significant legal need.

The present paper has examined the usefulness of SEIFA and individual measures of the elevated *experience of legal problems* for planning legal services. However, also relevant for targeting legal services is the identification of people with low *legal capability* – that is, people who are less able to

resolve the legal problems they face effectively. They may lack the knowledge, skills, competence or financial resources to seek professional assistance or to self-help, or they may face other barriers that prevent them from accessing justice (Coumarelos et al. 2012; Pleasence et al. 2014). Certain disadvantaged groups, such as those with low education levels or a non-English speaking background are more likely to ignore their legal problems (Coumarelos et al. 2012). Thus, proxy measures of 'legal capability' may also be useful tools when planning legal assistance service provision.

In summary, SEIFA can be used as a starting point to identify areas of high or particular legal needs but should not be used in isolation. Other information will also need to be considered to ensure that services are provided to those who are most at risk of legal problems and least able to resolve these problems successfully without assistance. Such information may include individual measures of disadvantage or other demographic data at a more local level, proxy measures of legal capability, and knowledge regarding the current service environment, along with any existing barriers to accessing services.

References

Adhikari, P 2006, *Socio-Economic Indexes for Areas: Introduction, Use and Future Directions, 2006*, cat. no. 1351.0.55.015, ABS, Canberra.

Australian Bureau of Statistics (ABS) 2006, *Information paper: an introduction to socio-economic indexes for areas (SEIFA)*, 2006, cat. no. 2039.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) 2008, *Census of Population and Housing: socio-economic indexes for areas (SEIFA), Australia: data only, 2006 (preliminary),* cat. no. 2033.0.55.001, ABS, Canberra.

Baker, J & Adhikari, P 2007, *Socio-Economic Indexes for Individuals and Families, 2007,* cat. no. 1352.0.55.086, ABS, Canberra.

Currie, A 2007, *The legal problems of everyday life: the nature, extent and consequences of justiciable problems experienced by Canadians*, Department of Justice Canada, Ottawa.

Coumarelos, C, Macourt, D, People, J, McDonald, HM, Wei, Z, Iriana, I & Ramsey, S 2012, *Legal Australia-Wide Survey: legal need in Australia,* Law and Justice Foundation of NSW, Sydney.

Coumarelos, C, Pleasence, P & Wei, Z 2013, *Law and disorders: illness/disability and the experience of everyday problems involving the law*, Updating justice, no. 22, Law and Justice Foundation of NSW, Sydney.

Dignan, T 2006, *Northern Ireland Legal Needs Survey*, Northern Ireland Legal Services Commission, Belfast.

Forell, S, McCarron, E & Schetzer, L 2005, *No home, no justice? The legal needs of homeless people in NSW*, Law and Justice Foundation of NSW, Sydney.

Forell, S, McDonald, HM, Ramsey, S & Williams, SA 2013, *Review of Legal Aid NSW outreach legal services, Stage 2 report: evolving best practice in outreach — insights from experience*, Law and Justice Foundation of NSW, Sydney.

Genn, H 1999, *Paths to justice: what people do and think about going to law*, Hart, Oxford.

Karras, M, McCarron, E, Gray, A & Ardasinski, S 2006, *On the edge of justice: the legal needs of people with a mental illness in NSW*, Law and Justice Foundation of NSW, Sydney.

Maxwell, GM, Smith, C, Shepherd, PJ & Morris, A 1999, *Meeting legal service needs*, Institute of Criminology, Victoria University of Wellington, Wellington.

McGee, TR, Wickes, R, Corcoran, J, Bor, W & Najman, J 2011, *Antisocial behaviour: An examination of individual, family, and neighbourhood factors*, Trends and Issues in Crime and Criminal Justice, 410: 1-6.

Pleasence, P, Coumarelos, C, Forell, S & McDonald, HM 2014, *Reshaping legal assistance services: building on the evidence base: a discussion paper*, Law and Justice Foundation of NSW, Sydney.

Pleasence, P 2006, *Causes of action: civil law and social justice*, 2nd edn, Stationery Office, Norwich.

Pleasence, P, Buck, A, Balmer, NJ, O'Grady, A, Genn, H & Smith, M 2004, *Causes of action: civil law and social justice*, Stationery Office, London.

Judith Stubbs & Associates 2012, *National Legal Needs &Strategic Planning Framework reports – prepared for National Association of Community Legal Centres* (NACLC).

Weatherburn, D 2001, *What Causes Crime?*, Crime and Justice Bulletin no. 54, New South Wales Bureau of Crime Statistics and Research, Sydney.

Whitworth, A 2013, *Evaluations and improvements in small area estimation methodologies*, National Centre for Research Methods, University of Southampton, Southampton, http://www.natsem.canberra.edu.au/publications/?publication=evaluations-and-improvements-in-smal-area-estimation-methodologies

Appendix Table 1: Regression results for the 12 problem groups

		Accidents		Consumer		Credit/debt		Crime		Employment		Family	
		B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
SEIFA	Quartile 1 v. 4	**-0.553**	**0.097**	-0.122	0.062	**0.199**	**0.098**	**0.196**	**0.070**	0.085	0.103	**0.345**	**0.111**
	Quartile 2 v. 4	**-0.403**	**0.088**	**-0.178**	**0.058**	-0.078	0.097	**0.162**	**0.067**	0.142	0.096	0.207	0.108
	Quartile 3 v.4	**-0.260**	**0.083**	-0.057	0.056	-0.020	0.096	0.118	0.066	0.041	0.097	0.148	0.109
Gender	Female v. Male	-0.015	0.065	**-0.142**	**0.043**	**-0.209**	**0.071**	**-0.161**	**0.049**	**-0.145**	**0.072**	**0.494**	**0.081**
Age	15–17 v. 65+	0.326	0.191	-0.187	0.136	0.054	0.333	**1.196**	**0.132**	**2.950**	**0.411**	0.274	0.330
	18–24 v. 65+	**1.258**	**0.123**	**0.500**	**0.089**	**1.571**	**0.187**	**1.384**	**0.106**	**3.617**	**0.384**	**0.620**	**0.230**
	25–34 v. 65+	**0.833**	**0.123**	**0.768**	**0.080**	**1.871**	**0.177**	**1.166**	**0.103**	**3.287**	**0.383**	**1.634**	**0.188**
	35–44 v. 65+	**0.668**	**0.124**	**0.880**	**0.078**	**1.580**	**0.178**	**1.118**	**0.102**	**3.214**	**0.383**	**1.904**	**0.184**
	45–54 v. 65+	**0.488**	**0.128**	**0.730**	**0.079**	**1.375**	**0.181**	**0.937**	**0.104**	**3.421**	**0.382**	**1.316**	**0.191**
	55–64 v. 65+	0.237	0.143	**0.547**	**0.085**	**1.243**	**0.190**	**0.764**	**0.111**	**2.661**	**0.391**	**0.870**	**0.211**
Constant		**-2.830**	**0.114**	**-1.775**	**0.074**	**-3.956**	**0.176**	**-2.779**	**0.098**	**-5.771**	**0.386**	**-4.615**	**0.197**

		Government		Health		Housing		Money		Personal injury		Rights	
		B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
SEIFA	Quartile 1 v. 4	-0.027	0.080	**0.455**	**0.130**	**-0.153**	**0.078**	**-0.504**	**0.112**	0.069	0.099	**0.309**	**0.107**
	Quartile 2 v. 4	0.037	0.075	-0.033	0.138	-0.113	0.072	**-0.337**	**0.100**	0.132	0.093	**0.358**	**0.101**
	Quartile 3 v.4	-0.061	0.075	**0.118**	**0.132**	-0.098	0.071	-0.132	0.094	0.084	0.092	0.191	0.103
Gender	Female v. Male	**-0.171**	**0.056**	**0.371**	**0.098**	-0.033	0.054	**-0.288**	**0.074**	**-0.316**	**0.069**	-0.038	0.074
Age	15–17 v. 65+	-0.383	0.199	**-1.142**	**0.412**	**0.357**	**0.155**	**-0.916**	**0.343**	**2.204**	**0.217**	**2.531**	**0.225**
	18–24 v. 65+	**0.689**	**0.113**	-0.054	0.196	**0.737**	**0.111**	-0.348	0.202	**2.258**	**0.197**	**1.986**	**0.214**
	25–34 v. 65+	**0.641**	**0.107**	**0.334**	**0.163**	**0.911**	**0.101**	**0.398**	**0.151**	**1.723**	**0.198**	**1.898**	**0.210**
	35–44 v. 65+	**0.702**	**0.104**	0.315	0.161	**0.813**	**0.101**	**0.882**	**0.140**	**1.802**	**0.196**	**2.112**	**0.205**
	45–54 v. 65+	**0.571**	**0.106**	0.074	0.170	**0.566**	**0.105**	**0.971**	**0.138**	**1.775**	**0.197**	**1.522**	**0.213**
	55–64 v. 65+	**0.567**	**0.112**	0.220	0.175	**0.399**	**0.113**	**0.943**	**0.144**	**1.369**	**0.209**	**1.028**	**0.235**
Constant		**-2.535**	**0.100**	**-3.822**	**0.158**	**-2.516**	**0.096**	**-3.038**	**0.133**	**-4.176**	**0.189**	**-4.648**	**0.206**

Note: N = 20 663 respondents per regression. Significant differences (at the 95% level) are presented in bold.

Endnotes

i The term 'legal problem' refers to a problem that is justiciable in that it raises legal issues with the potential for legal resolution, regardless of whether the respondent recognised this or took any action involving the justice system (cf. Genn 1999).

ii Judith Stubbs & Associates 2012. See http://www.naclc.org.au/resources/LNAF_Report_Appendix_1_Study_Methodology.pdf , for a description of the approach taken.

iii The SEIFA Index used in this report is derived from the 2006 ABS Census of Population and Housing. The 2006 rather than the 2011 SEIFA Index was used as data collection for the LAW Survey was undertaken in 2008, therefore the 2006 Index is more representative. The 2006 SEIFA is constructed from variables regarding: internet connection; employment type; education; income; public renting; unemployment; one parent families; households paying rent; disability status; private dwellings with no car; Indigenous status; private dwellings requiring one or more extra bedrooms; marital status; English proficiency. Note: the proportion of Indigenous persons in an area was included as a variable in the 2006 SEIFA IRSD but not the 2011 SEIFA IRSD (see ABS 2006 for details).

iv Preliminary analyses indicated that patterns between SEIFA and general measures of legal problem prevalence may have been masked by differences between problems types. The regression analysis examining the relationship of SEIFA (and gender and age) to the prevalence of any type of legal problem showed that compared to people living in SEIFA quartile 4, those living in quartile 2 had significantly fewer legal problems of any type. No other significant relationships between SEIFA and the general measures of legal problem prevalence were detected.

v Two levels were used in the model: state and person. The legal problem groups are identical to the 12 problem groups used in the LAW Survey (Coumarelos et al. 2012). Respondents to the LAW Survey were assigned a SEIFA score (ABS 2006) according to the postcode of their area of residence. Data were weighted as described in the LAW Survey (Coumarelos et al. 2012).

vi Other demographic variables used by Coumarelos et al. (2012) as individual predictors (Indigenous status, disability status, education level, employment status, family status, housing type, main income, main language and remoteness) were captured as part of the SEIFA in the present analysis rather than as individual predictors. They could not be included as individual predictors in the analysis due to collinearity.

vii The SEIFA was not divided into more than four categories due to the limited numbers of problems within some problem types.

viii See the relatively small effect sizes (β) in Appendix Table 1, particularly for consumer, credit/debt, crime and housing problems.

ix Using LAW Survey data, Coumarelos et al. (2012) found that some legal problem types were elevated for several of the disadvantaged groups they examined, while other problem types were only elevated for one or two disadvantaged groups. It is notable that the problem types with increased prevalence in the more disadvantaged SEIFA quartiles in the present study – credit/debt, crime, family and rights – also had increased prevalence for several of the disadvantaged groups examined by Coumarelos et al. (2012).

x See http://www.legalaid.nsw.gov.au/what-we-do/community-partnerships/cooperative-legal-services-delivery-clsd-program.