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Developing a global framework for conceptualising and measuring homelessness

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ABSTRACT

Homelessness has long been recognised as a global phenomenon, affecting poorer populations in both the developed and developing worlds. However, acute housing need has often struggled to achieve the same level of priority at an international level as the satisfaction of other basic needs, such as for food, water, healthcare and education. In this paper we present a broad-based Global Homelessness Framework as a means of providing a ‘frame of reference’ for cross-national engagement in this field, but recommend that concerted international action focuses on a relatively narrow definition of homelessness encompassing people without any form of accommodation (the ‘unsheltered’ group who are sleeping rough or in places not intended for human habitation) and those living in temporary or crisis accommodation specifically provided for homeless people. We demonstrate that current data is insufficient to generate a comprehensive and defensible worldwide ‘count’ of homeless people, and set out proposals to facilitate moves towards more reliable homelessness estimates at local, national and global levels. At the same time, however, we argue that at least some meaningful trend data is already available for large parts of the Global North, and for some countries and cities in the Global South, so that it would be both feasible and valuable to systematically track these ‘directions of travel’ over time.

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1. Introduction

Homelessness has long been recognised as a global phenomenon, affecting poorer populations in both the developed and developing worlds (Springer, 2000; UN Habitat, 2000). However, research and practice interventions on homelessness have tended to proceed down parallel paths in the Global South and Global North, involving discrete networks of key players, separate conceptual frameworks, and different methodologies. This separation in intellectual and policy effort has inhibited the progress of mutual learning between different world regions on homelessness. Moreover, and notwithstanding important developments, such as discussions of homelessness at Habitat I and II, and the establishment of the European Federation of National Organisations Working with the Homeless (FEANTSA) in 1989, acute housing need and homelessness have often struggled to achieve the same level of priority at

an international level as the satisfaction of other basic needs, such as for food, water, healthcare and education.

It is within this context that the charity Depaul International has recently partnered with DePaul University in Chicago to establish the Institute of Global Homelessness (IGH).¹ IGH seeks to serve as a central hub to help support international efforts to address homelessness, guided by policy- and practice-focussed research. One key aim of IGH is to build the ‘infrastructure’ required for key stakeholders across the globe to communicate effectively about the nature, causes and impacts of homelessness in their world regions, and to share promising approaches and interventions that may be transferable beyond their original sites.

This paper presents the first steps in building this infrastructure by attempting to develop both a ‘common language’ around homelessness and an agreed means of measuring the scale of homelessness and trends, in order to aid assessments as to whether policy and practice interventions are succeeding. It is divided into three principal sections. The first section sets out our proposed

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conceptual framework for defining and understanding homelessness at global level. The second section reviews the current state of statistical knowledge on the scale of homelessness across the world. The third section looks to the future, proposing a menu of methods that may be used to estimate homelessness, particularly unsheltered homelessness, as a means of progressing towards an overall global measurement and monitoring framework in this field.

2. Conceptualising homelessness at global level

Our first (ambitious) aim was to develop a conceptualisation of homelessness that could be considered internationally meaningful, with resonance in the Global South as well as the Global North. This conceptualisation is intended to provide a common language and reference point to frame exchanges on the topic of homelessness within and across world regions. It also needs to provide a robust basis for the development of a global estimate of the number of people affected by homelessness, and trends in the scale of this phenomenon.

In developing the conceptual framework underpinning this work, we drew upon a wide range of sources, including the 'European Typology of Homelessness and Housing Exclusion' (ETHOS), developed by FEANTSA and the European Observatory on Homelessness (EOH) (Edgar & Meert, 2006; Edgar, Harrison, Watson, & Busch-Geertsema, 2007), and critiques of this typology (Amore, 2013; Amore, Baker, & Howden-Chapman, 2011). The sustained programme of comparative work undertaken by Graham Tipple and Suzanne Speak on homelessness in the developing world (e.g. UN Habitat, 2000; Tipple & Speak, 2005, 2006, 2009; Speak, 2013), together with papers on homelessness definitions in specific developing world contexts (e.g. Cross, Seager, Erasmus, Ward, & O'Donovan, 2010; Kok, Cross, & Roux, 2010), were also key resources. Without wishing to underplay the very significant challenges presented by our attempt to grasp the nature of homelessness on a global basis, of which much more below, it is perhaps worth noting at this point that there was more by way of conceptual continuity across these very different world regions than one might have expected.

Drawing across this literature, we settled on the following as the core concept lying at the heart of our proposed global definition of homelessness: *Lacking access to minimally adequate housing*

More specifically, following the lead of Amore (2013, p.228), we understand homelessness as *“living in severely inadequate housing due to a lack of access to minimally adequate housing”* [emphasis in original]. This parallels the 'enforced lack' criterion now widely accepted in concepts of poverty and material deprivation (e.g. Lansley & Mack, 2015), and reflects our view that homelessness should be conceived of as 'severe housing deprivation' (see also Springer, 2000).

In other words, homelessness denotes a standard of housing that falls significantly short of the relevant adequacy threshold in one or more domains. The following three 'domains of home' – a refined version of the ETHOS conceptual domains (Edgar & Meert, 2006) – seem to us the appropriate ones within which to evaluate adequacy (see also UN Habitat, 2009, wherein the 'adequacy' of housing is assessed in broadly similar terms).

First, the **security domain** is a multi-dimensional domain that relates to “the extent to which households can make a home and stay there for reasonable periods if they wish to do so, provided they meet their legal obligations” (e.g. Hulse, Milligan, & Easthope, 2011). This includes both *de jure* security of tenure (having legal title to occupy) and *de facto* security of tenure (which relates to the practical likelihood of eviction). As in the ETHOS conceptualisation, *exclusive occupation* (i.e. the power to exclude others) is also a vital

feature of the security domain. But in addition, we would consider the *affordability* of housing as highly relevant to this domain, as inability to meet rental or mortgage costs is a key cause of housing insecurity.

Second, the **physical domain** pertains to having an adequate dwelling which meets the household's needs in terms of both the *quality* of the accommodation (durability, protection from the weather, provision of basic amenities, freedom from infestation and pollutants, and safety of one's self and one's possessions from external threats) and *quantity* of accommodation (not severely overcrowded).

Third, the **social domain** refers to opportunities to enjoy *social relations* in the home, as are culturally appropriate in the relevant community, and also the scope afforded for *privacy*. This domain further pertains to safety from *internal threats* (i.e. from other occupants) to both the person and their possessions.

Proceeding from this conceptual model, we envisage an operationalised Global Homelessness Framework containing three broad categories of people who may be considered homeless (see Table 1 below).

'**People without accommodation**', as captured in Category 1 above, refers to those sleeping in places not intended for human habitation, such as the streets, public roofed spaces or various forms of transport, who are variously referred to as 'roofless', 'living/sleeping rough', 'street homeless', or 'unsheltered' in countries around the globe. This group is excluded from all three domains of home, having no legal title to occupy any form of physically adequate accommodation, within which they can carry on normal social relations or achieve an acceptable degree of privacy.

An important sub-category of people without accommodation in the Global South are 'pavement dwellers' (Subcategory 1(d)) who live on the street in a regular spot, usually with some form of makeshift cover (Tipple & Speak, 2006; Wardhaugh, 2012). A pavement dweller's 'patch' may only be marked out by a mat or cardboard box, but in many cases tarpaulin sheets or other scavenged materials provide some form of rudimentary shelter. They may form small communities, but these are distinguishable from slum/informal settlements, typically located on the urban periphery, in being found in scattered sites in the city centre, and offering their occupants little scope to attain the sort of *de facto* security of tenure that would allow them to 'consolidate' and improve their dwelling (Tipple & Speak, 2009).

There is also a distinction to be drawn between street homeless adults (most of whom are men), and street children (mostly boys, and smaller in number than homeless adult males, but a group who have garnered a great deal of research and policy attention (UN Habitat, 2000; Kok et al., 2010)). With regard to the latter group, it is children 'of the street' (who sleep in public places) rather than children 'on' the street (who work on the streets but return to a family to sleep) who are most relevant to considerations of homelessness (Jones & Thomas de Benitez, 2012; Lam & Cheng, 2012; van Blerk, 2012). Pavement dwellers, on the other hand, commonly include entire households or families living together on the streets (Tipple & Speak, 2006; 2009).

People living in temporary or crisis accommodation, as denoted by Category 2 in Table 1, pertains to those living in accommodation formally provided by public or charitable bodies to cater for those who are unable to secure a dwelling for themselves. This includes night shelters, homeless hostels, and women's refuges, as well as camps, reception centres and similar provided for internally displaced people, asylum seekers, refugees and other migrants. In practice, people may live in this ostensibly 'temporary' provision for very extended periods of time. The physical conditions in such accommodation may be adequate (though this is far

Table 1
Proposed global homelessness framework.

Category	Subcategory
1 People without accommodation	1 (a) People sleeping in the streets or in other open spaces (such as parks, railway embankments, under bridges, on pavement, on river banks, in forests, etc.)
	1 (b) People sleeping in public roofed spaces or buildings not intended for human habitation (such as bus and railway stations, taxi ranks, derelict buildings, public buildings, etc.)
	1 (c) People sleeping in their cars, rickshaws, open fishing boats and other forms of transport
	1 (d) 'Pavement dwellers' – individuals or households who live on the street in a regular spot, usually with some form of makeshift cover
2 People living in temporary or crisis accommodation	2 (a) People staying in night shelters (where occupants have to renegotiate their accommodation nightly)
	2 (b) People living in homeless hostels and other types of temporary accommodation for homeless people (where occupants have a designated bed or room)
	2 (c) Women and children living in refuges for those fleeing domestic violence
	2 (d) People living in camps provided for 'internally displaced people' i.e. those who have fled their homes as a result of armed conflict, natural or human-made disasters, human rights violations, development projects, etc. but have not crossed international borders
	2 (e) People living in camps or reception centres/temporary accommodation for asylum seekers, refugees and other immigrants
3 People living in severely inadequate and/or insecure accommodation	3 (a) People sharing with friends and relatives on a temporary basis
	3 (b) People living under threat of violence
	3 (c) People living in cheap hotels, bed and breakfasts and similar
	3 (d) People squatting in conventional housing
	3 (e) People living in conventional housing that is unfit for human habitation
	3 (f) People living in trailers, caravans and tents
	3 (g) People living in extremely overcrowded conditions
	3 (h) People living in non-conventional buildings and temporary structures, including those living in slums/informal settlements

from always being the case), but occupants are generally excluded from the security domain (with no *de jure* or *de facto* security of tenure) and the social domain (with little privacy, security or safety from fellow occupants, and few opportunities for normal social relations).

Whether people living in the sorts of **severely substandard or highly insecure accommodation** captured in Category 3 of Table 1 should be considered homeless (rather than poorly housed) depends, we would argue, on how deficient their circumstances are with respect to the three domains of home indicated above. Moreover, in line with our conceptual framework, they would only be considered homeless if they were living in this severely inadequate or insecure housing "due to a lack of access to minimally adequate housing" (Amore, 2013, p.228), rather than because they had, for example, made a lifestyle choice to live in a caravan.

With slums and informal settlements (Subcategory 3(h)) providing shelter for many millions, if not billions of people in the developing world, a key definitional challenge is to distinguish between those who are 'homeless' and those who are 'inadequately housed' in such contexts. Tipple and Speak (2006, 2009) argue that opportunities for incremental improvement, predicated on at least some rudimentary *de facto* security of tenure, alongside access to basic amenities (usually on an informal basis) and the use of reasonably durable materials, are the key criteria pointing towards 'inadequacy' rather than homelessness.

This is undoubtedly the most contentious aspect of the proposed Global Homelessness Framework, and brings into sharp relief the difficulties in establishing a single definition of homelessness applicable across the world, as is now discussed.

2.1. A uniform global definition?

While we have argued above that the distinction between inadequate housing and homelessness rests on the severity of deprivation in the three key domains of home, it is also to at least some extent a political decision, embedded in varying economic, cultural and institutional contexts. We have therefore concluded that it would not be helpful to attempt to impose a single definition

of homelessness, applied uniformly across the globe.

For one thing, in order to be useful, a definition of homelessness must reflect to at least some extent the norms within that society (i.e. it has an inevitable relative dimension based on prevailing housing standards in that context). Amore (2013) argues that the predicted prevalence of a particular form of housing deprivation is irrelevant to considerations of whether, conceptually, it ought to be categorised as a form of homelessness. But we are mindful of Tipple and Speak's (2006) point that definitions which include "the vast majority of the developing world's population" (p.57) may "include too many people to be of use in prioritising resources for the most needy" (p.60).

It is, in any case, not necessary that all countries agree on all categories, or accept that all of these groups are part of the homeless population. What is more important – and feasible – is that we establish a Global Homelessness Framework that national and local definitions can be set in relation to, so that it can be clarified which of the subcategories are included and which are not in various policy conversations, service planning efforts and enumerations. This is a great advantage when comparing absolute numbers and trends across countries, and also for evaluating progress and bringing pressure to bear on policy makers and other key actors. The Framework presented in Table 1 is therefore offered as an aid to transparency, a (hopefully) useful 'reference frame' (Busch-Geertsema, 2010). If widely recognised and accepted, this Framework would allow stakeholders from different national and regional contexts to engage in meaningful dialogue with those from elsewhere – being clear where they are referring to similar and different categories of homelessness – and obviate the danger of talking 'past' each other about distinct phenomena.

However, at the same time, there is a case for recommending a clear and consistent definition of homelessness for the more specific purpose of focusing any new global initiative to tackle this aspect of severe deprivation. This definition has to have global resonance and be, at least in principle, capable of application in a meaningful way across countries with very different economic, housing and cultural contexts. We therefore recommend that a reinvigorated global effort to address homelessness focus on

Category 1 and Category 2(a–c) in Table 1 above, i.e. people without any accommodation, and those living in temporary or emergency accommodation specifically provided for homeless people. We propose this relatively narrow focus of attention for the following (inter-related) reasons.

First, these forms of ‘literal homelessness’, particularly street homelessness and shelters of various kinds, reflect a higher level of commonality across the globe (being present in both the developed and developing worlds) than do some of the other categories, which are more specific to particular world regions or periods of crisis (Cross et al., 2010). This commonality also permits global efforts to pursue measures of homelessness which are largely *absolute* rather than *relative* in nature (i.e. similar to the \$1.25 a day absolute poverty level), which would be more difficult with broader definitions which would inevitably be more culturally defined in nature.

Second, we have grounds for thinking that street homeless people in particular are often neglected in international and local strategies to tackle ‘homelessness’ in favour of more numerous and better organised groups living in inadequate housing, such as shack or slum dwellers whose circumstances, while often very poor, may constitute a ‘staging post’ in housing careers towards something more permanent and viable (Cross et al., 2010; Tipple & Speak, 2005, 2006, 2009).

Third, many other organisations and networks already exist to focus on slum dwellers, refugees, asylum seekers, and internally displaced peoples. We therefore judge that it would be neither appropriate nor sensible for any new initiative on homelessness to attempt to usurp the work of these well established and expert organisations.

In summary, the gap that we suggest requires to be filled is with respect to a population enduring extreme versions of housing deprivation, who are found in most if not all parts of the world, and whose needs tend to be neglected by current networks and international strategies. Our reasoning echoes the sentiments expressed by these South African authors:

“... broader definitions [of homelessness] risk losing the dynamics of actual street homelessness inside large and diffuse social categories: the destitute street homeless are a small and particular group as compared with the much larger, better known and less poor shack population and the many shelter-insecure urban dwellers.” (Cross et al., 2010, p.7).

2.2. Core characteristics of the proposed conceptual approach

A number of judgement calls have been made in developing both the Global Homelessness Framework, and the narrower definition of homelessness proposed above, meaning that the direction we are advocating brings in its wake both strengths and weaknesses. We readily acknowledge that others may take a different view on some of these judgements, and our hope is that the explanations offered below will provide a platform for further debate in developing a global agenda to tackle homelessness.

First, our proposed approach is entirely accommodation-orientated, being concerned with ‘severe housing deprivation’. We acknowledge that this excludes the deeper, non-material meanings associated with the concepts of ‘home’, particularly the connections with family and kinship, and other social ties and relations.

Tipple and Speak (2009) make the point that, while in the West homelessness is often associated with social exclusion, this is not necessarily the case, for example, with pavement-dwelling households: “It is not helpful ... to assume that street-homeless

people in developing countries are as isolated from mainstream society as many of those in industrialised countries” (p.79). Thus we appreciate that implying the loss of familial roots as well as the loss of shelter is not always appropriate in the developing world, with many people who live on the streets (to be close to their livelihoods) having a ‘home’ in their family’s place of origin, often in a rural village (see also Wardhaugh, 2012). Nonetheless, we would agree with Tipple and Speak (2005, p.351), that we should not be “quick to abandon the term homeless” in favour of more ‘neutral’ terms such as ‘houseless’ or ‘shelterless’, as homelessness has a resonance for lay people and an implied moral and policy imperative that we would seek to preserve.

Second, our approach is concrete, descriptive, and objective insofar as possible rather than subjective, i.e. focussed on how homeless people would classify their own situation. While of course we would acknowledge the importance of homeless people’s lived experiences and perceptions, the main exercise we are engaged in here is to enumerate severe housing deprivation across the globe, including comparing different countries and world regions. It is therefore vital that the definition employed is objective, operationalisable and measurable.

Third, our approach focuses entirely on those who are presently homeless, rather than those who are ‘at risk’ of homelessness, or who are ‘formerly homeless’. We agree with Amore et al. (2011) that, while these populations are highly relevant to homelessness policies, it is important to distinguish them clearly from the actual homeless population at any given moment.

Fourth, one potential weakness of our proposed definition is that it does not allow us to overcome the ‘service statistics paradox’ (Tipple & Speak, 2009), given that our inclusion of Categories 2(a–c) in Table 1 above means that those countries/cities with more homelessness services (specifically shelters and other emergency accommodation) will tend to report higher numbers of people using these services. That said, one might reasonably expect that levels of street homelessness will be correspondingly lower if these countries are providing viable alternatives to the street. The means of assessing that are discussed later in this paper.

3. Measuring global homelessness: the current position

As Tipple and Speak (2009) comment, while attempts at enumeration of homeless people are often controversial, the production of reliable estimates is a critical component in progressive policy development because “... numbers tend to drive investment and can enable lobbyists or officials to direct funding to address the problem” (p.103). Thus a ‘global estimate’ of the total number of homeless people is an important tool in garnering support for a worldwide initiative to address the problem.

Just as critical, or possibly even more critical, is to establish the basis for the periodic collection of homelessness data on a (reasonably) consistent basis in order to generate reliable trend statistics. Such trend data – which highlights negative and positive developments in the ‘direction of travel’ – is fundamental to evaluating the effectiveness of initiatives to resolve homelessness, enabling pressure to be brought to bear on governments and other stakeholders to ‘do better’ where necessary.

Having done an intensive search for existing data on homelessness at the national, regional and local levels in various world regions, we would contend that it is not possible at this stage to generate a defensible estimate of the global extent of homelessness. This is especially true in the Global South, but also in a number of European countries, for example, data on homelessness is extremely sparse. The basis for a global estimate is therefore still much too patchy for very large parts of the world. The position with respect to assessing trends on homelessness is somewhat more

optimistic, as discussed below.

Differences in methods and definitions in those territories which have conducted counts of homeless people have had a considerable influence on the large variations in homelessness rates (per head of population) found in the literature, which do not reflect accurately 'real' differences in the extent of the problem. For example, the last homelessness census in Australia (2011) found that 0.49% of the Australian population were homeless according to the Australian definition on census night (Australian Bureau of Statistics, 2012, p. 5), while the latest national homeless count in Chile, also in 2011, found only 0.07% of the Chilean population being "in the streets" (see Ministerio de Desarrollo Social, 2012, p. 49, author's own calculations).

To take South America as an example, we have identified the national count just mentioned in Chile (the second count of this type in Chile), and one national count in Uruguay (conducted in 2011), as well as in Brazil (conducted in 2007). In most of the other countries of this world region, numbers are only reported for some cities (e.g. from Bogota and some other Colombian cities) or for the capitals, for example in Argentina (Buenos Aires). This is not enough to produce a reliable estimate for South America. In other parts of the Global South the situation is even worse, and counts are either very out of date or non-existent.

Attempts in the past to build a global estimate have often combined data which were not comparable at all, because they covered different periods of time (e.g. point in time counts were combined with annual prevalence data), related to different groups of homeless people (data about street homeless people in one region were combined with data on users of homeless services or homeless people sharing with friends and relatives in other regions), or took a local homelessness rate (e.g. in large cities) as representative for the whole country or even for a whole world region (see examples in UN Habitat (2000) and Tipple & Speak (2009)).

In 2005 a 'Special Rapporteur on adequate housing as component of the right to an adequate standard of living' in his report to the UN Commission on Human Rights (UNCHR) announced that the "United Nations estimates indicate that approximately 100 million people worldwide are without a place to live. Over 1 billion people are inadequately housed" (see UNCHR, 2005, p. 2). In the same report an estimate of 20–40 million homeless people "in urban centres worldwide" is quoted from an earlier publication of the UN (2001), but the empirical basis for both estimates remains unclear.

Tipple and Speak (2009) provide the following worldwide estimates: between 3.8 and 216 million are homeless according to official figures; between 33.6 and 179 million are living on the streets; and between 41.6 and 730 million homeless households are living in inadequate housing. They acknowledge that these ranges are far too wide to be practically useful: "It seems that we should enumerate homeless people but currently we do not have the tools to do so with any accuracy" (p.119).

In 2006 the UN published *Recommendations of the Conference of European Statisticians for the 2010/2011 Censuses of Population and Housing* (United Nations Economic Commission for Europe, 2006), which included a definition of homelessness for those persons not living in private or institutional households: Two "categories or degrees of homelessness" were proposed (p. 109):

- Primary homelessness (or rooflessness): this category includes persons living in the streets without a shelter that would fall within the scope of living quarters.
- Secondary homelessness: this category may include persons with no place of usual residence who move frequently between various types of accommodations (including dwellings, shelters, and institutions for the homeless or other living quarters). This

category includes persons living in private dwellings but reporting "no usual address" on their census form.

The results of the 2011 censuses in different European nations showed that for some countries, especially in Central and Eastern Europe, data on the national extent of homelessness were produced for the first time (see Baptista, Benjaminsen, Pleace, & Busch-Geertsema, 2012). But overall the results for Europe were disappointing as the number of countries which reported no data on homelessness, or reported data which were patently unreliable, was very high (see Table 2 below, based on information made available by EUROSTAT). In the 13 cases where a "0" is indicated in Table 2, it is much safer to assume that no numbers were available rather than to conclude that homelessness does not exist in the relevant countries.

It is important to understand that census authorities are often interested in the scale of homelessness only to a limited extent, and mainly in order to provide a comprehensive number for the national population. They are less interested in providing detailed information on the extent and profile of this particular group. This means that, while in some European countries attempts were made to cover homeless people in the most recent census exercise, their numbers were then aggregated with other groups who are difficult to count (such as people in institutions, living on boats etc.; for more details see Busch-Geertsema, Benjaminsen, Filipović Hrast, & Pleace, 2014). However, in other regions of the world, for example in Australia or India, the census authorities have played an important role in providing more reliable estimates on the scale of homelessness (see Bannerjee, 2002; Australian Statistical Bureau, 2012).

Table 2
Census results for homelessness in Europe.

EU 2011 population and housing census	
Housing arrangements >	Homeless
Geographical area	
Belgium	0
Bulgaria	287
Czech Republic	11,496
Denmark	0
Estonia	0
Ireland	2045
Greece	3381
Spain	0
France	16,339
Croatia	137
Italy	34,653
Cyprus	0
Latvia	0
Lithuania	857
Luxembourg	274
Hungary	5571
Malta	2
Netherlands	0
Austria	5811
Poland	8699
Portugal	696
Romania	1524
Slovenia	0
Slovakia	23,483
Finland	0
Sweden	0
United Kingdom	240 u
Iceland	761
Liechtenstein	0
Norway	0
Switzerland	0

u = low reliability.

Source: <https://ec.europa.eu/CensusHub2> (last retrieved 14 January 2016)

To summarise, we are currently not in a position to extrapolate any reliable global estimate from existing data on homelessness. It is necessary to extend and improve local, national and regional data on homelessness before we can generate a global estimate with the minimum accuracy required. The next section sets out a proposed way forward and promising methodologies for facilitating attempts to move towards a defensible worldwide estimate of the scale of homelessness.

4. Estimating global homelessness: a future agenda

Obtaining reliable and valid measures of the extent of homelessness in any location is fraught with complications, particularly with regards to the enumeration of ‘unsheltered’ people (i.e. those sleeping rough or in places not intended for human habitation). Enumeration is difficult because the persons to be counted typically seek to conceal themselves from the elements and/or authorities, and so are not often visible to enumerators; and the geographic extent within which people *may* reside is virtually coextensive with the borders of a given jurisdiction, although actual occupied locations are likely much more limited.

Add to this the human resource challenges of mounting comprehensive street counts, including with some regularity and periodicity, and it is clear that obtaining a reliable estimate of unsheltered homelessness in any particular location or country will require a significant commitment of time and people. To guide us in these efforts, we do have exemplary practices from several different countries and cultural contexts from which we can learn and share. We are also aware of common limitations that will require persistence and creative accommodations to overcome.

We would argue that an appropriate way forward is as follows.

First, encouragement should be given for official census authorities and homelessness NGOs to work together to promote reliable counts of the narrow definition of homelessness we are suggesting above (ie Categories 1 and 2(a–c) in [Table 1](#)). While these census authorities do likely have the capacity to enumerate people in crisis or temporary accommodation, given our collective experience in developed countries, and the already serious challenges to enumeration of people in slums and informal settlements in developing countries, we think it is quite unlikely that these authorities will undertake unsheltered counts on their own. However, we think that NGOs should consult with and even collaborate with census officials as they develop plans to undertake enumerations or estimates of unsheltered persons. These census authorities may have tools (i.e. mapping) that can support the enumeration efforts, and they may even be able to offer some level of participation in the planning for a count.

Second, based on the experiences of researchers and enumerators in several countries, we can provide guidance on potential methods for estimating the size of the unsheltered population. The United States Department of Housing and Urban Development (HUD), for example, has issued two documents on recommended methods as it has required biannual counts of unsheltered people as a condition for funding ([Burt, 1996](#); [HUD, 2008](#)). The collective experience of various countries to date suggests two primary approaches to counting unsheltered households: street counts based on stratified geographic sampling; and service-based sampling methods. Some communities have combined these two primary methods to improve upon the accuracy of their counts, while others have employed a variation on the visible street counts with the use of ‘capture/recapture’ approaches. Each of these will be described below. We will also consider the potential utility of household-based surveys for estimating homelessness, although these are better suited for estimating past rather than current homelessness.

4.1. Stratified geographic sampling

The most common method for estimating unsheltered persons in the US is based on stratified samples of geographic units within a given jurisdiction. Service providers, especially those who do outreach to unsheltered persons, and other professionals with expert local knowledge of the problem, such as police, are convened months in advance of a count to review maps of the jurisdiction and to classify areas as having a high, medium or low probability of having at least two or more people sleeping rough.²

- Places with a low probability may be removed as potential sampling sites, due to the human resource demands of reaching other sampled areas.
- Areas with a medium probability may be sampled at a 5, 10 or 20 percent rate, depending on the number of enumerators who will be available the day of the count.
- In general, high probability areas are sampled at 100 percent, but in large areas and with limited enumerators, 20–50 percent samples may be necessary.
- Areas with ‘encampments’ or unique places like train stations and airports, where significant numbers of people are expected to be found, are generally treated as ‘certainty’ sites, and are enumerated at 100 percent and ‘represent themselves’ (i.e. they are not used as a basis for extrapolation to other sites, given their uniqueness).

Enumerators, typically traveling in pairs or groups of three or four, use tally sheets to count people, and may use forms to denote visible demographic characteristics. Some sites may actually survey people, or a sample of people with a formal survey, although enumerators are usually instructed not to disturb sleeping people.

Enlisting volunteers for a count, developing assignment procedures and maps, and providing them with a brief training, will require several months of planning. In the US, these counts are typically done during the coldest month of the year (January), when people will seek shelter at greater rates, and when it is expected that unsheltered homelessness is most rare. However, this comes with a risk that unsheltered people will also seek informal shelter from the elements and be less visible for enumeration purposes than during warmer months. Some localities may have an additional count in the summer to provide an alternative measure. In New York City, a correction for undercounts includes the deployment of hundreds of ‘visibly homeless decoys’ who report whether or not they are enumerated on the night of the count; counts are adjusted upward for the percentage of decoys who go uncounted.

A variation on the stratified geographic sample approach may involve a survey of ‘certainty’ sites only. In this approach, where insufficient enumerators and/or resources are available for a stratified approach for the whole jurisdiction, just known sites where encampments are located, or places like plazas, transit stations, dock areas, etc., are identified by the expert planning group, and only those areas are subject to enumeration. While this clearly does not result in a jurisdiction-wide estimate, it does have the advantage of surveying the areas where the largest number of people can be found, including where people can be surveyed regarding their characteristics, and where future and periodic counts can be repeated to gauge trends in the size or composition of the population in these areas.

² This “two or more” criterion has been used as planners have difficulty affirming that any particular site may not have at least one homeless person there, but recognizing that these are of low probability.

4.2. Service-based sampling methods

Another method for estimating the size of the unsheltered homeless population includes 'service-based sampling' methods. In this approach, (non-accommodation) service programmes that are known to serve large proportions of the street homeless are identified, such as soup kitchens or drop-in centres.

All or a proportion of the sites are surveyed either on one day or, more commonly, over the course of a week. Samples of clients are surveyed (for example, a 10 or 20 percent sample), and asked about where they slept either the night before in the case of a one day sample, or over the course of the last week. Also required under this approach is a tally of all the meals served on the day or week of the survey, including at sites not selected for the sample surveys. Based on the proportion of respondents who report sleeping arrangements that could be characterized as 'unsheltered' an extrapolation is conducted to estimate the total number of service users who might therefore be unsheltered.

Part of the survey instrument should include a screening question regarding whether or not the respondent has completed the survey previously that day or week, either at the same site or at a different site, and the estimates adjusted for duplication accordingly. Results also have to be adjusted for the proportion of people who use multiple service sites in the survey. This method has been successfully used in some cities in the US and in some European countries like France, which has a national network of public restaurants with subsidized meals, and in Spain (see [INE \(2012\)](#) and [Yaouancq et al. \(2013\)](#)).

4.3. Service-based sampling as a correction for uncounted street enumerations

An alternative use of the service-based method is as a correction for the street enumerations, such as the stratified geographic approach or the 'certainty' site only approach. In this case, people at service sites are surveyed the day after the one-day counts and asked about where they slept the night of the survey. The goal is to determine the percentage of people who were in unsheltered locations where survey enumerators would not have been able to identify them due to their lack of visibility.

The proportion of unsheltered people who would not have been counted is then used as an extrapolation factor for the estimate of the unsheltered who were counted. This is also a way to derive an estimate of the 'hidden homeless' who may be living with others in conventional housing but on an emergency basis, such as 'couch surfers' (although this may not be an enumeration goal of a more narrow definition of homelessness).

The reliability of the estimate in either case is based on an assumption that the visibly and not visibly unsheltered persons exist in proportion to their relative representation among the service users surveyed.

Finally, because this method is meant as a corrective to the street enumerations and not as an estimate of unsheltered homelessness among all service users, it is not necessary to get a tally of unduplicated service users across all service sites, as is required when this method is the primary approach to estimating unsheltered persons, and for which the universe of service users is necessary (as a denominator) from which to generate the estimate.

4.4. Capture/recapture method

A less commonly used, but novel approach to estimating the size of the unsheltered population employs a 'capture and recapture' method. In this case, geographic areas or service sites are pre-identified on the basis of their having a high probability of

unsheltered homelessness.

A predetermined sampling approach is planned, and respondents recruited using the specified procedures (first 200 people contacted in an area or at a service provider, for example). People are then screened as to their housing status to determine if they were unsheltered in the previous night, week or month. Some components of a personal identifier are also obtained. This usually includes the initial of the first and last name, and perhaps year or month and year of birth, or it could include last four digits of a national identity number or recent phone number, etc. These identifiers are chosen to reduce concerns by respondents that they will be identifiable by surveyors or officials, but which they can readily recall with reliability. The identifier(s) then serves as the 'tag'.

A subsequent survey is then repeated using the exact same sampling procedure and sample size at another point in time (one month or two months later). A formula is then used to derive an estimate of the total population, based on the overlap of the two samples (the tagged people from the first count 'recaptured' on the second count).

One challenge with this approach is that it produces estimates with large confidence intervals. However, the confidence interval can be narrowed with repeated resampling, for example, by doing the procedure perhaps monthly over a six month period. This approach was recently used successfully in Chile ([Ministerio de Desarrollo Social, 2012](#); see also [Williams, 2010](#) with examples from the UK).

4.5. Telephone and household surveys

A final method for estimating unsheltered homelessness is also a method that can be used to estimate rates of other forms of homelessness: telephone or other household surveys (see [Burrows, 1997](#); [Toro et al., 2007](#); [Bramley, Besemer, & Fitzpatrick, 2013](#)). In this case, households are sampled, usually based on random digit dialing or through samples of household units, and people are surveyed regarding their homelessness history. Respondents are asked to self-report places they may have stayed over varying time periods, or over their lifetime, and the list of options includes a range of homeless situations.

Positive indicators of homelessness are then used to derive a rate, which can then be extrapolated to the population from which the sample is obtained. An advantage of this approach is that researchers can 'piggy back' on existing household surveys by adding these questions, and take advantage of large-scale, robust national surveys already conducted by official bodies (see in the UK, for example, [Burrows, 1997](#); [Fitzpatrick, Pawson, Bramley, & Wilcox, 2013](#); and [Bramley et al., 2013](#)).

A potential disadvantage of this approach is that given that homelessness is likely a relatively 'rare event' epidemiologically speaking, reliable results will require very large samples, such as are likely to be obtained from national surveys by official census authorities. Small samples ($n = 500$ or even 5000) can lead to very large confidence intervals, with extrapolations to whole nations based on only a handful of respondents reporting a positive homelessness history.

A further disadvantage is that unsheltered persons are less likely to have phones (though increasingly many do have mobile phones), or to have recently been part of a household, and so this method may be expected to significantly underestimate unsheltered homelessness. It will certainly underestimate current, very recent or long-term homelessness, as people in temporary or crisis accommodation, as well as those sleeping rough, will not be captured by most household surveys.

4.6. Summary

A variety of methods are available for estimating the number of person who are homeless in a given jurisdiction. Emphasis here has been given to methods for estimating unsheltered homelessness, as the assumption is that people in emergency accommodations or shelters are able to be enumerated in a more straightforward manner due to their residence in a night-time facility, where they can be readily tallied or surveyed on a given night. In contrast, given the geographically dispersed and broad extent in which persons can be unsheltered, other methods are necessary to estimate the population size.

The methods above provide some systematic approach to conducting such estimates, although each has its shortcomings, and may be best used in combination, so as to correct or triangulate the various estimates. Certainly, more research is needed to understand how these methods compare and as to their applicability in a wide variety of settings around the world. It is recognised that much of the existing estimation experience derives from the US, and to a lesser extent Europe, though a number of interesting initiatives are also underway in Central and South America. It will therefore be particularly important to test the feasibility and appropriateness of the proposed methods in developing world contexts.

To progress towards a global estimate, we would propose that national estimates based on the definitions and enumeration methods outlined above, suitably adjusted for context, are undertaken. In time, these can be added to form reasonable estimates in various regions around the world, recognizing that this is a long-term task, and will take many years to accomplish on a global scale.

5. Conclusion

We have proposed in this paper a Global Framework of Homelessness focused upon “*living in severely inadequate housing due to a lack of access to minimally adequate housing*”, with adequacy evaluated in respect of the ‘security’, ‘physical’ and ‘social’ domains of home. While this Framework encompasses a wide range of circumstances that may potentially be described as homelessness, as a means of providing a ‘frame of reference’ for cross-national discussions and comparisons, we have recommended that the work of any new initiative to tackle homelessness on a global basis focuses more narrowly on people without any form of accommodation (the ‘unsheltered’ group who are sleeping rough or in places not intended for human habitation) and those living in temporary or crisis accommodation specifically provided for homeless people. This is a population which is found in most if not all parts of the world, and whose needs tend to be neglected by current networks and international strategies.

We have attempted to demonstrate that it is not at present possible to extrapolate any reliable global estimate for these groups of homeless people. It is necessary to extend and improve local, regional and national data on homelessness before we can generate a global estimate with the minimum accuracy required. We have therefore set out some proposals for facilitating attempts to move towards a more reliable worldwide estimate.

It is likely that the generation of a defensible global estimate of the scale of homelessness will take some considerable time to achieve, as cities and countries develop their own more reliable estimates, and certainly over-generalization from local or national estimates should be cautioned against. For example, creating regional estimates for a continent based on only a handful of local or national counts is not recommended, as both rates for given countries and for areas in a given country can be quite variable, based on current international experience. At best, an estimate for a given country can be attempted based on a rate or averaged rates

for cities and extrapolated to urban areas, combined with a separate rate derived and extrapolated for rural areas. Such national estimates may then be additive in a region or continent. Generalizing these rates to other nations in a region is risky in any case, due to expected international variations.

It is worth emphasising, however, that we should be in a position to comment on trends in homelessness, for at least some parts of the world, at a much earlier stage than we can realistically expect to have a comprehensive global ‘count’. For large parts of the Global North such trend analysis is already possible (see Busch-Geertsema et al., 2014; for a number of European countries), and it might also be possible for some countries and cities in the Global South as well. For example, the Brazilian city of Sao Paulo has had more than six bi-annual homelessness counts to date (the most recent one in 2015); the national count in Chile discussed above is the second one to have taken place; trend data have been reported for India, and at the local level for a number of cities in the Global South.

It is possible, then, to envisage the production of an global annual report on homelessness which brings together counts and trend data as and when they are available in particular countries, cities and other locations, and areas of the world for which we can make credible estimates, tracking how this develops over time. A network of coordinators in different world regions would make this feasible, by supplying local intelligence, contacts and data. Such a regular ‘report card’ may help to generate momentum for positive action in those parts of the world where greater progress is needed in enumerating and, more importantly, solving homelessness.

The ideas presented in this paper are intended to provoke debate on how best to proceed with an agenda to conceptualise and measure homelessness, and particularly its more extreme manifestations, on a global basis. While the challenges and complexities are formidable, drawing together relevant learning from the Global South and Global North provides the most promising platform we have available for promoting acute housing deprivation as a pressing theme on the international policy agenda. International attention is increasingly and deservedly focused on the acute housing needs of people in slums and other makeshift settlements. A common language and understanding of the distinct needs of people experiencing outright homelessness could help to assure that no one is left behind in international efforts to address housing needs more broadly.

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