Image Credit: Atish Patel

Crammed In Or Shut Out?

Implications of Delhi's Homeless Shelter System's Floor Space Constraints- with Attention to the Potential Public Health Risks of Overcrowded Shelters during COVID-19

Ashwin Parulkar

CENTRE FOR POLICY RESEARCH

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Introduction

In early May one caretaker and four residents in a homeless shelter in Central Delhi's Jhandewalan area tested COVID-19 positive.[1] Social activists urged Delhi government officials to conduct COVID-19 testing across all homeless shelters, warning that limited space in shelters made social distancing difficult if not impossible. Officials moved these patients to a notified COVID-19 quarantine facility but widespread testing did not follow. By the end of May, at least 20 more cases were identified in a shelter cluster near the All India Institute of Medical Sciences (AIIMS) hospital.[2]

The Delhi High Court ordered inspections of the AIIMS shelters. Judges berated officials for not admitting COVID-19 positive residents to the nearby hospital immediately. A Delhi government advisor and two Delhi Urban Shelter Improvement Board (DUSIB) officials later confirmed to me[3] that positive cases in AIIMS actually numbered about 50 - and were divided almost equally between two neighboring emergency tent shelters. The government sets up tents 'temporarily' each winter across Delhi. In March, officials extended tenures of these shelters for the Lockdown period. The AIIMS 'tent' cluster initially consisted of eleven tents and one portacabin shelter. Government officials did eventually transfer COVID-19 patients to AIIMS and Safdarjung Hospitals but they did not thereafter conduct shelter inspections. Instead, DUSIB closed one shelter. This did not merely decrease limited shelter space in the area. In 2012, the Delhi High Court had deemed shutting down temporary, tent shelters illegal[4].

Where did residents go? People who were not admitted to the hospital were moved to other shelters in the cluster, one DUSIB official said. When asked how the disease had spread among such a large group of shelter residents, this official replied, 'How can it be commented about 50 cases at AIIMS? ...it is a disease which happens due to contact from one person to another.' Initial infection(s) occurred, he said 'when residents of said shelters visited AIIMS hospital.' Officials differ on whether COVID-19 positive shelter residents were chronically or transiently homeless, or belonged to other urban poor groups who may have stayed in shelters while seeking nearby hospital care.

From March 22 to May 14, an average of 446 people stayed in the AIIMS shelter cluster each night. Officially reserved for 893 people, the cluster therefore operated at 52% 'official capacity.' Most individual shelters were very small. Nine of eleven tent shelters, for which data is available, were 600 square feet in size with an average capacity of about 50 residents. The government had therefore reserved about 12 square feet of space to prospective residents. About 18 people - 36% of the shelter cluster's official capacity - actually slept in these tents each night, indicating that 33.8 square feet existed among them.

The AIIMS outbreak occurred just before Delhi's daily COVID-19 case tally surpassed 1,000 for the first time. This figure continued to rise throughout June and peaked at just over 3,000 in early July before beginning a steady decline (the situation at the time of this writing). Experts attribute this positive sign to increased government public outreach, namely door-step testing . The relatively large number of infections among largely mobile, homeless people in congested spaces that have yet to undergo COVID-19 testing[5], I believe, begs questioning:

What is the extent and implications of overcrowding in Delhi's shelters? Can residents (and staff) in such spaces practice social distancing required to prevent the spread of COVID-19?

The Centers for Disease Control and Prevention (CDC) recommend that homeless shelter residents and staff maintain 6 feet of personal distance[6] to prevent the spread of the disease. They do not provide recommendations on the specific amount of space, in terms of square footage, that shelters should allot to achieve this. A CDC homelessness expert told me, however, that shelters should provide at least 60 square feet of space in sleeping areas. [7] The CDC does officially recommend that homeless encampments, including tent enclaves such as those in AIIMS, provide at least 144 square feet to each inhabitant[8].

In this study, I examine the nature and implications of limited available floor space across Delhi's homeless shelter system. The point is to ascertain the extent to which the system's capacity and coverage problems are

1. rooted in shelter planning and design; and how, in that context,
2. shelter space constraints may pose a public health risk to homeless people during the COVID-19 pandemic;
3. districts with rapidly growing overall populations where such space shortages are concentrated may continue to exclude homeless from shelter; and
4. shelters that, comparatively, have more space may also have the potential to accommodate more people, at least in the near-term.

Methodology and Data Sources

My analysis in this study is based on:

- official nightly shelter occupancy data that is updated and archived dailyon the DUSIB occupancy index site.[9] I use this information to calculate official occupancy rates across shelters and locations. *Official occupancy rates* equal the **average number of nightly shelter users** divided by the **official (DUSIB-listed) capacity of shelters**, respectively.

- shelter square footage, gleaned from individual shelter profile pages on the live DUSIB website[10]. I use this information and official occupancy rates to calculate (i) officially allotted square feet per shelter resident and(ii) actual square feet shelter resident. *Official shelter area* equals **the total shelter area (square feet)** divided by **DUSIB-listed shelter capacity (residents),** respectively. *Actual square feet per shelter resident* equals the **total shelter area (square feet)** divided by the **average number of actual nightly shelter users recorded by DUSIB.** I will refer to *actual square feet per resident* as *true shelter area* for the rest of this report.

- district and city-wide overall homeless population estimates and population growth rates according to the Census 2011[11]. I use this data as criteria to ascertain districts in the city where current shelter shortages will, in context of respective overall population growth rates, increase. I call these locations *shelter-deficit districts* and elaborate on them in later sections.

1. The Shelter Capacity Problem

At the outset of India's lockdown in late March the Delhi government notified shelters and school kitchens as food service delivery sites. Officials did authorize government schools and shelters to cook and distribute hot meals to those in need but failed to increase space inside shelters for such people to stay. Districts across Delhi had to lean on community kitchens to serve ever more people under limited resources[12]. Before the lockdown, Delhi's approximately 200 shelters could officially accommodate, on average, just over 17,000 people (March 2019-2020). That number is far below the capital's 47,000[13] to 180,000[14] estimated homeless population. Yet, only about 7,300 people a night used these spaces between March 2019 and March 2020 **(figure 1 and figure 4)**. That amounts to only 43% of the shelter system's official capacity and 15% of Delhi's official homeless population (Census 2011).

Figure 1: **Delhi's Shelters: Average Nightly Residents per Month**

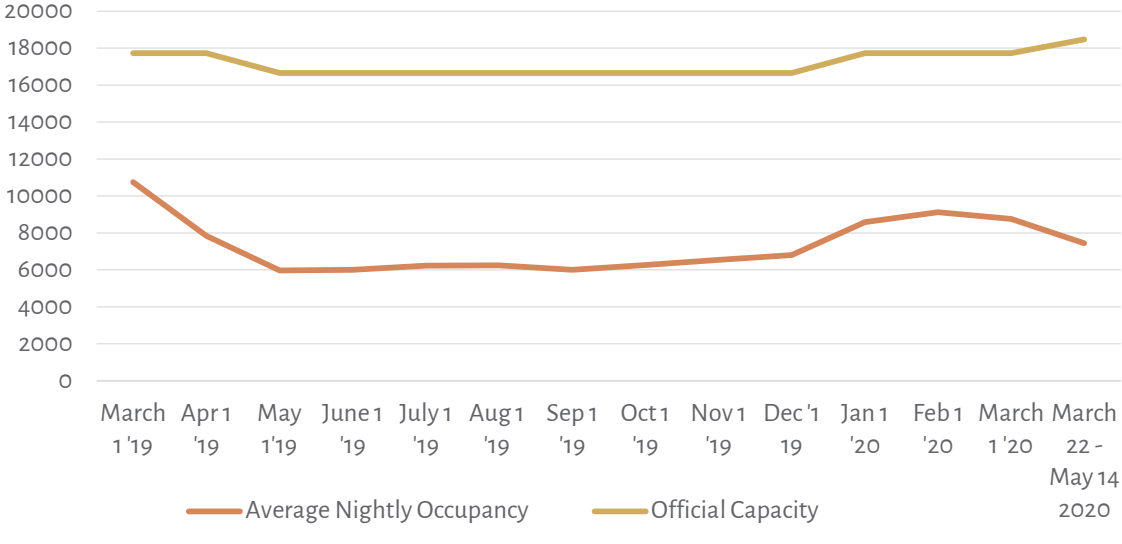

Figure 1: Average Nightly Residents per Month (note: each month is a cumulative average of nightly occupancy for the preceding month), (March 2019-March 2020 and March 22 – May 14, 2020), data source: DUSIB Occupancy Index

Figure 2: **Delhi's Shelters: Official Occupancy Rate (%) v. Shelter Area/Avg Residents (sq ft/person) [True Shelter Area]**

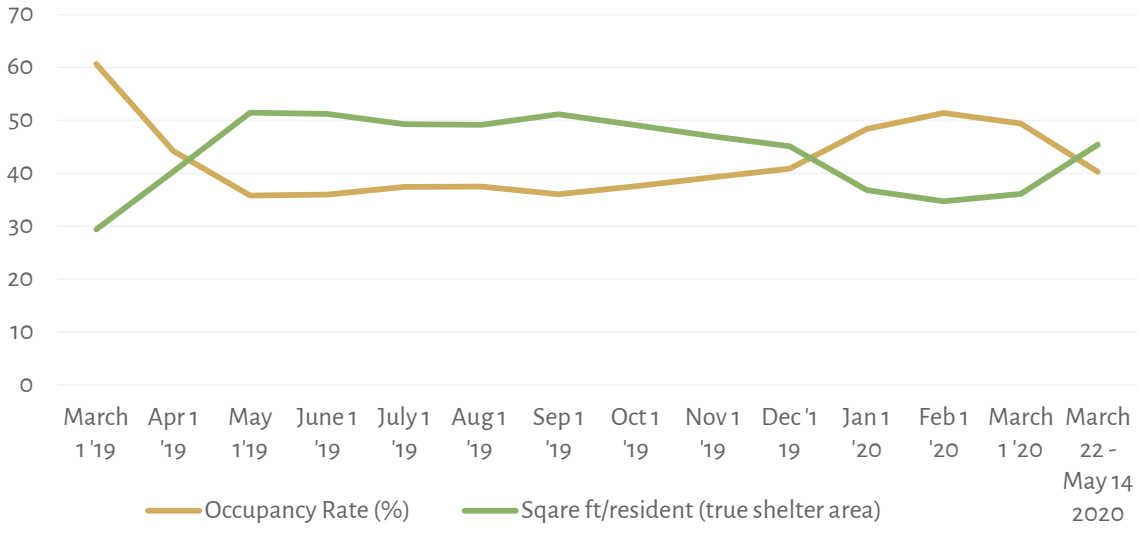

Figure 2: Official occupancy rate v/ true shelter area (shelter area per average number of residents using shelters each month) from March 2019 to March 2020 and Lockdown reference period of March 22 to May 14, 2020, data source(s): DUSIB Occupancy Index & DUSIB Occupancy Report

The government did increase the share of shelters reserved for vulnerable groups like women, children, and families from about one-tenth of all shelters in August 2017 to about one-fifth by March 2020[15]. These shelters officially accommodate 3955 people (21% of the shelter system's total capacity). Only 40% of that intended figure use these spaces. Why do so few homeless people use shelters?

The government allots very little space to these structures - just 18 sq. ft. per intended resident across the city's approximately 220 shelters **(figure 6)**. This figure is slightly lower for specialized, that is vulnerable group, shelters. The total square feet available in all women's, children's and family shelters is 68032 ft. Prospective residents (n= 3905[16]) would therefore have an average 17.42 square feet of personal space. 1596 people use these spaces, which means that this group of shelters officially operates at 40%capacity. These actual residents enjoy about 43 square foot of space between them (true shelter area).

This pattern of officially half-filled shelters(official occupancy rates) and minimal space among people who do use them (true shelter area) pervades the shelter system **(figure 2)**.

How do we examine this pattern? We need to evaluate available shelter space in mind of how many shelters exist and where they are located. The Ministry of Housing & Urban Poverty Alleviation's National Urban Livelihood Mission's Scheme of Shelters for the Urban Homeless (NULM-SUH) recommend local governments ensure 1 shelter for 100 homeless persons that provides 50 sq. ft. of space to each resident[17]. This guideline is

Figure 3: **Official (listed) capacity by shelter type**

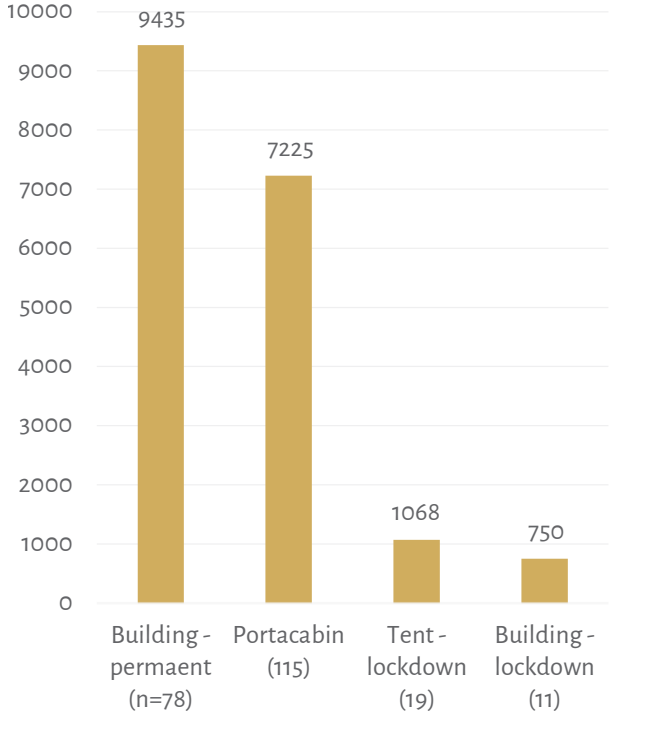

Figure 3: Official capacity by shelter type (March 22 – May 14, 2020), data source: DUSIB Occupancy Index

below CDC spatial recommendations for homeless building and tent shelters, discussed above, and equal to or just less than certain prison conditions.[18]

The Delhi Government does not use NULM funds and finances its own shelters. As I'll discuss in the next section, the NULM spatial guideline has been referred to in High and Supreme Court orders as well. The slight increase in the capacity of Delhi's shelters from May-Dec'19 (16,660 residents across 193 shelters) to Dec'19-March'20 (17728 residents across 212 shelters) is due to government's winter temporary shelter program. The rise in official capacity from 17728 residents among 212 shelters to 18478 residents among 223 shelters by March indicates a minimal extension of emergency measures already in place **(figure 3)**.

Based on available data, emergency shelters allotted just 10.37 sq. ft. of shelter space to each person [19] On average 7438 people used Delhi's shelters each night between March 22 and May 14. This means the system officially operates at 40% capacity[20] **(figure 2)**. This is nearly equivalent to yearly March 2019-20 averages of 7317 shelter users, a 42.86% official occupancy rate **(figure 4 and 5)**.

Official occupancy rates vastly underestimate the extent to which Delhi's shelters are used. We need to redefine 'full capacity' since the Delhi government only allots on average 18.05 sq ft of shelter space to it residents **(figure 6)** - 60% less than the NULM guideline. How, in this context, should we evaluate occupancy rates? Official occupancy rates throughout the year and during the lockdown period under analysis (March 22 to May 14) hover at around 40%. Based on the number of people who actually who use shelters, there is still on average less than 50 square feet of personal space among residents **(figures 4 & 5)**.

Figure 4: **Delhi Shelters' Capacity and Nightly Occupancy**

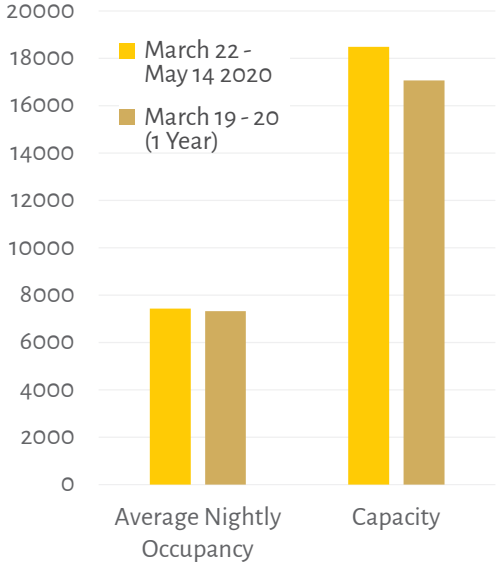

Figure 4: Official Capacity and Nightly Occupancy. A comparison between the yearly average (March '19-'20) and lockdown reference period (March 22 – May 14, 2020), data source: DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

Figure 5: **Delhi's Shelters: Official Occupancy Rate (%) and True Shelter Area (sq ft)**

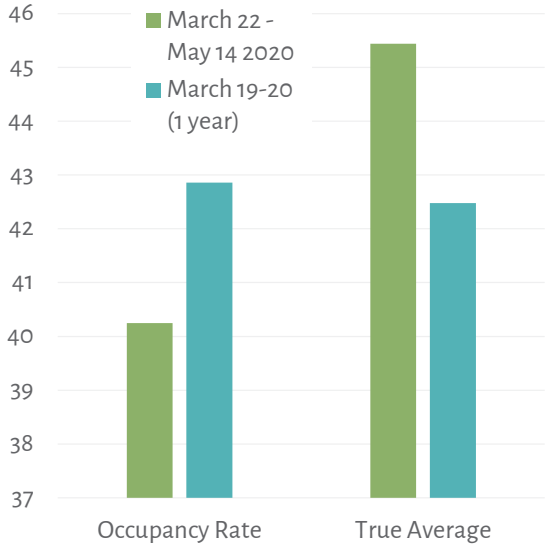

Figure 5: Official Occupancy Rate and True Shelter Average. A comparison between the yearly average (March '19-'20) and lockdown reference period (March 22 – May 14, 2020) data sources: DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

Given the limited space across shelters, I argue here that a measure of true shelter area - **total 'listed' area of shelters divided by total number of average daily shelter users** – is a more accurate indicator of how many people can access shelters and not merely the number of people who do. In reality, Delhi's 223 shelters allot on average 45.44 square feet of space to its residents. A lower total average than the NULM guideline, the system's buildings - 35% of all shelters – provide an average 62 sq ft to its 3136 residents, or 42 % of all shelter residents **(figure 6)**. We need to use the measure of true area to identify opportunities to better use existing shelter space or create more. This serves long-term (planning) purposes and crisis needs, such as the current pandemic.

Figure 6: **Officially Allotted Shelter Area v. True Shelter Area (square feet/person)**

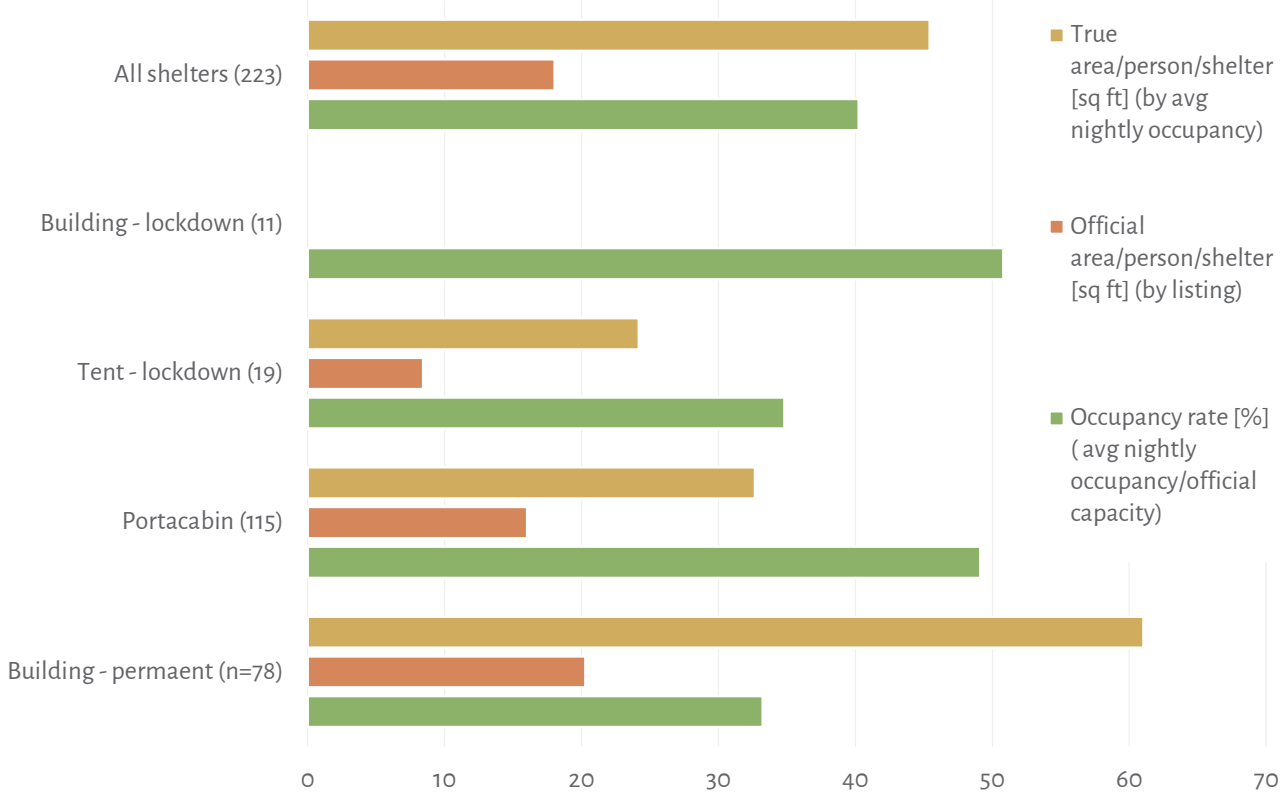

Figure 6: Official shelter area v. True shelter area by shelter type (March 22 – May 14, 2020), data source: Delhi Urban Shelter Improvement Board Occupancy Index **(note:** square footage data does for 'lockdown' building shelters is unavailable)

2. Framing the Shelter Capacity Problem

How are Delhi's shelters actually used? We need to evaluate ***where shelter spaces are used*** across the city in context of ***how many people use them***. This helps locate spatial capacities and constraints in specific shelters and across types (e.g. women's and families; buildings vs portacabins) and geographies (e.g. districts).

NULM's shelter coverage guideline recommends (i) ***one shelter in every urban area inhabited by 100,000 people (where shelters should be built)*** to be made available for (ii) ***100 homeless people (how many should use them)***. This indicates, or assumes, a 0.1% urban homeless-to-overall population ratio .[21] How does the NULM guideline arrive at this ratio? Its authors pieced together earlier policies that had only dealt with ***geographical distribution of shelters*** and ***residential capacities*** separately. The Delhi Master Plan (2007), followed by Delhi High Court and Supreme Court Orders (2010), directed the 1 shelter:100,000 total urban population geographical distribution ratio[22]. Commissioners to Supreme Court recommended that shelters accommodate at least 100 people[23].

How do we examine the amount of personal shelter space provided each resident in context of the geographic distribution of shelters and their official residential capacities? The NULM guidelines recommend and the Delhi High Court has also ordered that shelters provide 50 square feet of shelter space per each resident. However, I do not know how policymakers arrived at this figure[24] For the purpose of this study, however, I view this figure as the amount of floor space policymakers have decided meets (a) shelter needs of homeless people and (b) cities' capacities to provide a perceived amount of habitable space to this population across urban areas evenly. This equilibrium point of sorts takes the form, at city-level, of 1 homeless shelter for 100 residents in every urban jurisdiction inhabited by 100,000 residents.

The problem is that even the most conservative estimate of Delhi's homeless population outpaces the 0.1% benchmark: the 47,076 people deemed homeless comprise 0.28% of the city's overall population of 16.78 million (Census 2011). This means that the NULM guideline would exclude 30,288 (64.4%) people in Delhi that are officially in need of shelters **(figure 7)** since the NULM guideline only covers 16,780 people – or, 0.1% of Delhi's official population. But DUSIB's own parameters – the official '18,478' residential capacity of its 223 shelters - bars nearly the same number of homeless people(28,598, or 61%) from the capital's shelters.

Figure 7: **Shortages: Official houseless population v. official shelter capacities (NULM guidelines and DUSIB-listed)**

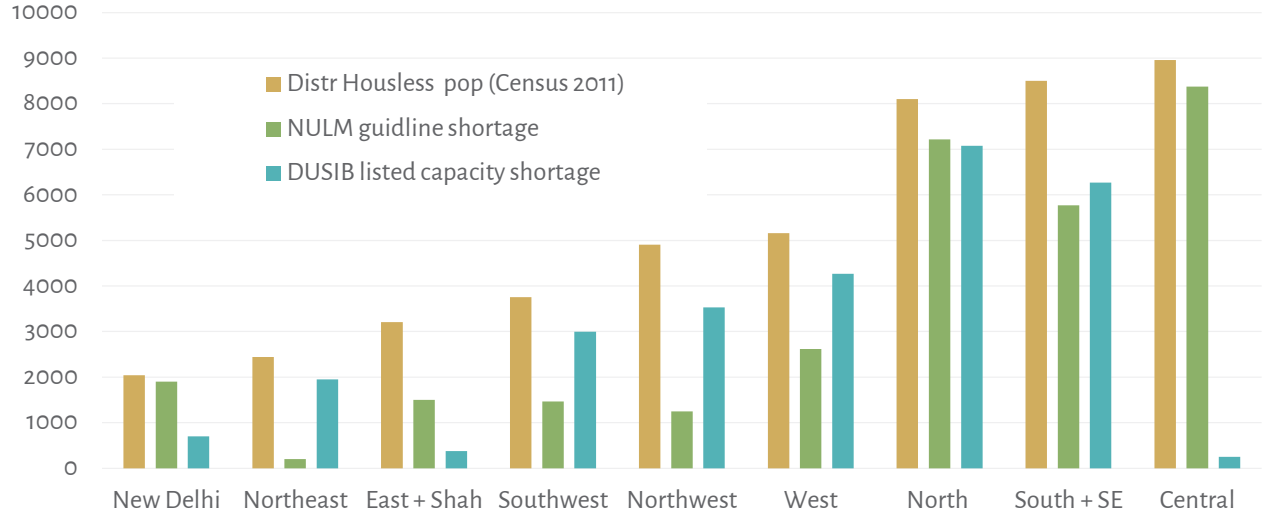

Figure 7: Official shortages of shelter space: Census homeless estimates in comparison to NULM coverage parameters and DUSIB's listed shelter capacities, data source(s): Census (2011), NULM-SUS (2013), and DUSIB Occupancy Index

Variances in shelter space shortages across the city can be attributed to three policy mismatch scenarios that occur at the district-level. These mismatches are characterized by the difference between stipulated & officially listed shelter capacities, respectively, and official homeless population estimates **(Figure 7)**.

The first mismatch occurs when NULM guidelines (0.1% homeless to district population) exclude a sizable portion of a district's homeless population but DUSIB's listed shelter capacity covers this population . This pattern is most pronounced in Central district. The district's nearly 9,000 homeless population

Figure 8: **True Shortage: % homeless in shelters v. % stipulated by NULM guidelines and DUSIB listed capacities**

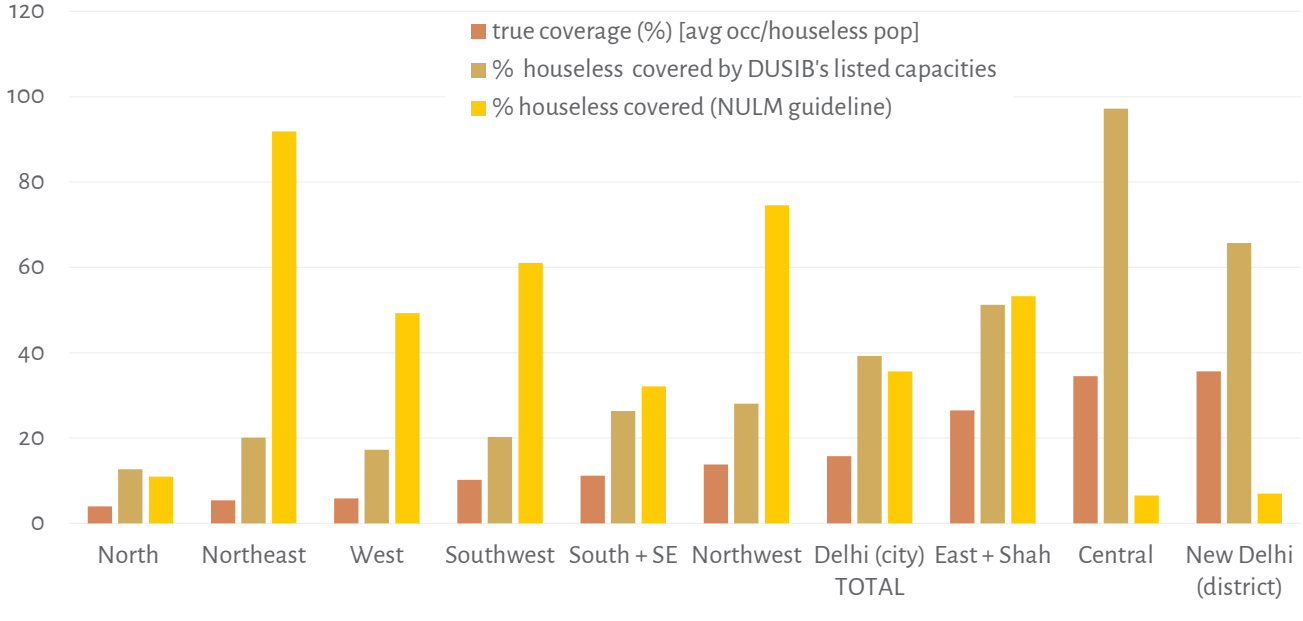

Figure 8: True Shelter Shortages: The percentage of the Census estimated homeless population who use shelters in comparison to NULM coverage parameters and DUSIB listed capacities (occupancy averages taken from the March 22 – May 14, 2020 period) data source(s): Census 2011, DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

Figure 9: **Delhi Shelters by District (March 22 - May 14 2020)**

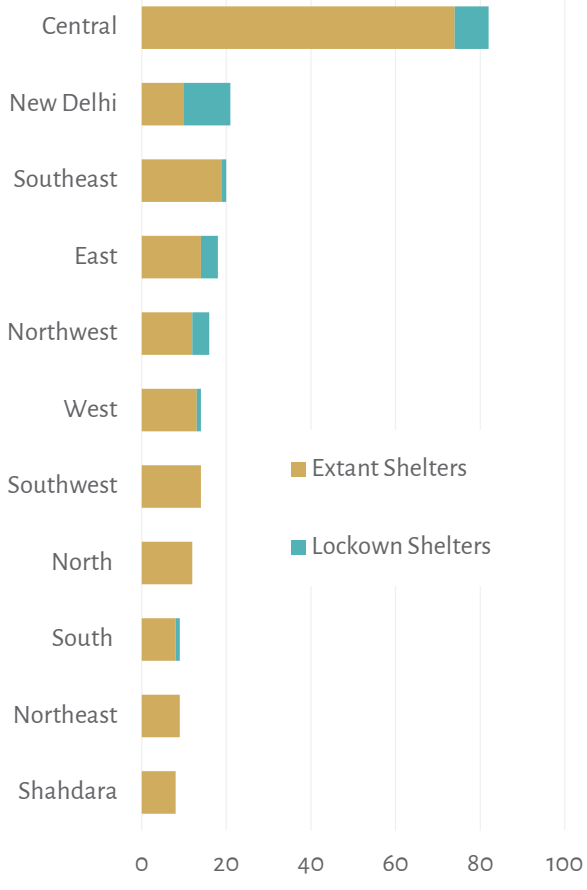

Figure 9: Delhi Shelters by District (March 22 – May 14, 2020), data sources: DUSIB Occupancy Index

(Census 2011) far outstrips the 582 people (0.1% of the district's 582,320 population) whom NULM guidelines would cover. But the 82 DUSIB shelters in this district officially accommodate 97% (8710 residents) of the Census count **(Figures 7- 9)**. In New Delhi district, only 142 of this district's estimated 2044 homeless people (6.95%) are covered by the NULM ratio.DUSIB's 21 shelters - including 11 'lockdown' ones - were slated for nearly two-thirds of the district's homeless population. But the limited capacity of the new shelters could not accommodate the intended number of people.

Scenario 2 applies to districts where NULM guidelines would cover more than half the homeless population and DUSIB's officially stated shelter capacity covers less than half. These include Northeast (NULM coverage: 92%; DUSIB: 20%), Northwest (NULM:95%; DUSIB: 28%), and Southwest (NULM: 61%; DUSIB: 20%).

Scenario 3 leaves homeless people in districts such as North, South & Southeast doubly vulnerable to shelter planning exclusions. Both NULM guidelines and DUSIB shelter capacities fail to cover an overwhelming majority of district-wise homeless census estimates (nearing 90% in North district on both accounts).

Poor shelter planning has resulted in limited and unevenly distributed shelter space across Delhi. Identifying shelters that homeless people do use requires locating places they can actually access **(Figure 8). Figure 8** shows that DUSIB's official shelter capacity covers less than half of Delhi's homeless

Figure 10: **True Shelter Area v Official Shelter Area**

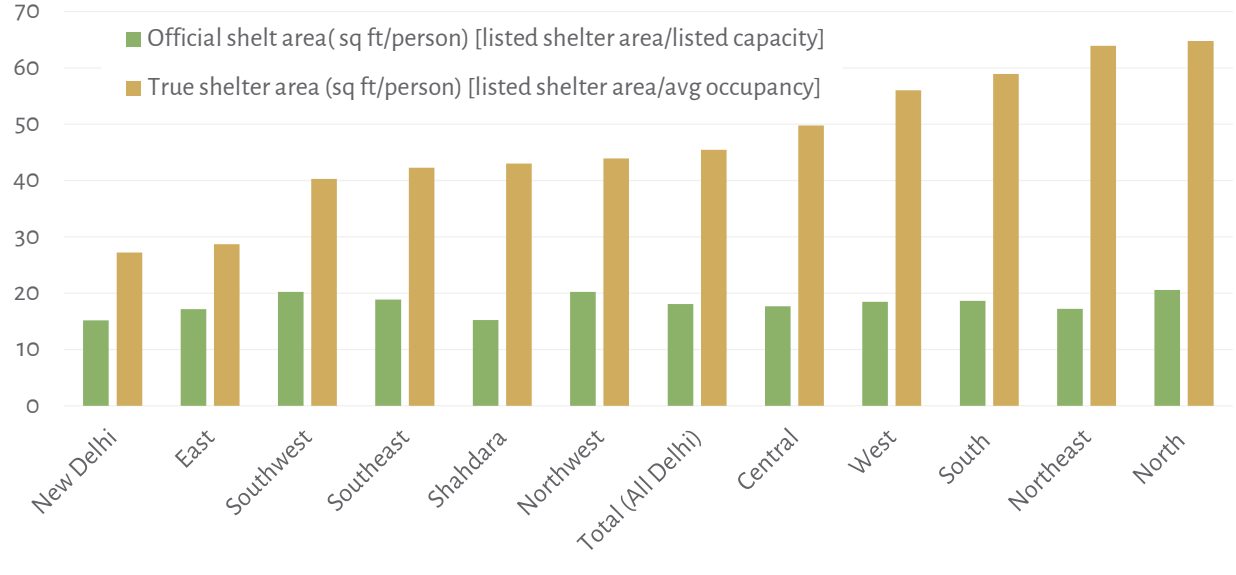

Figure 10: Shelter area per actual resident (true area) and area reserved, or planned, according to official shelter capacities (official shelter area) by district (March 22 – May 14, 2020), data source(s): DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

population across seven districts (North to Northwest on the graph, consecutively). With exception to Central and New Delhi districts, Delhi is experiencing largescale population growth (Census 2011). Homeless people who live and work in these areas will find it increasingly difficult to avoid the pavement if the government does not allocate shelter space in proportion to homeless counts across districts. The number of shelters itself does not address the problem. I explore this later.

Still, recent Covid-19 cases were identified in districts such as Central and New Delhi. These areas have a lot of shelters. The 103 shelters across these districts officially accommodate 10,053 people - 54% of the shelter

(2) listed capacities are inflated and therefore requiring us to evaluate official shelter occupancy rates - which range from 35 to 59% percent across districts, and 40% city-wide **(figure 11)** – in context of available shelter space (true area) .

The approximately 7300 homeless people who sleep in Delhi's shelters each night represent the near maximum to full limit who can use these spaces, a lower than previously acknowledged share of the homeless population that can access shelter.

Shelters in New Delhi and East districts are, like the AIIMS cluster I discussed earlier, officially half-full .

Figure 11: **True Shelter Area v Occupancy Rates**

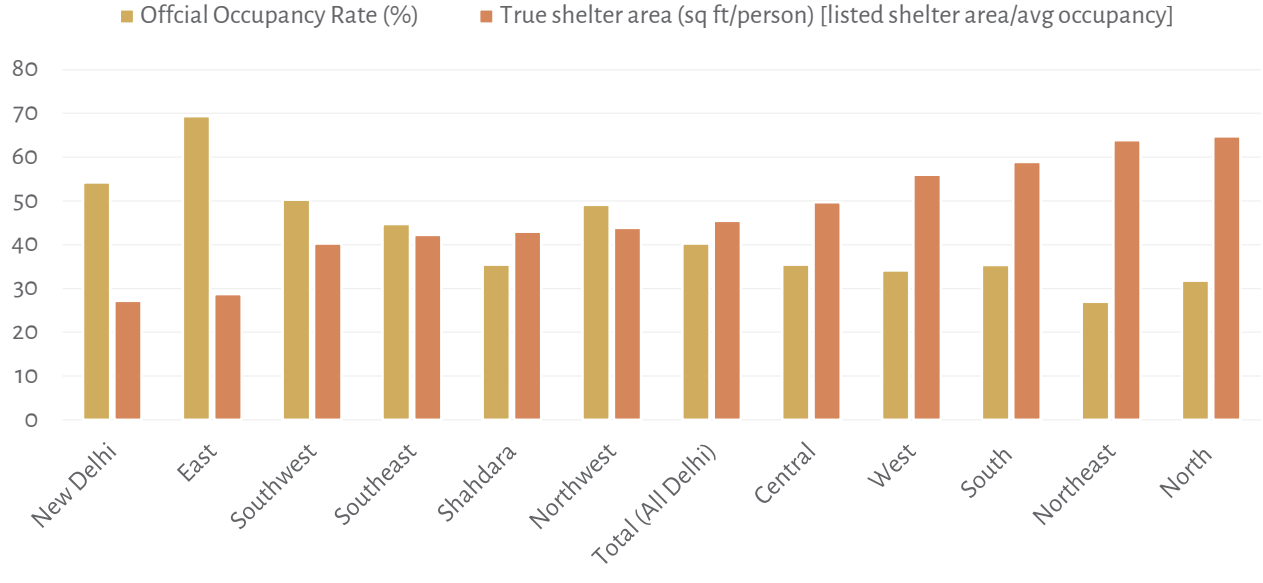

Figure 11: Shelter area per actual resident (true area) and official occupancy rates, (March 22 – May 2014), data sources: DUSIB Occupancy Index, DUSIB Nightly Occupancy Report

system's officially listed capacity. These shelters officially allot an average 17.75 and 15.17 square feet, respectively, to its residents. By average official shelter area/person, no district exceeds 20 sq ft/person **(figure 10)**. In reality – that is, based on the average number of people who use shelters each night - 179 shelters across 7 of 11 Delhi districts provide less than 50 square feet per person to the system's 6492 residents (87% of all shelter residents). This indicates that:

(1) shelters, on average, operate at near full capacity to over-utilization (particularly in New Delhi and East districts, where true shelter area equals almost half the NULM guideline),

and

Based on actual usage, however, they provide nearly less than half the amount of space recommended by the NULM guideline of 50 sq. ft. per person **(figure 7).** Shelters with low true area/high occupancy ratios (above the official average) indicate full capacity to overcrowded conditions.

In context of the overall space constraint problem afflicting Delhi's shelter system that I've just described, I examine throughout the remainder of this paper:

(i) The nature of such shelter area shortages, to identify spaces that should be expanded or replaced with larger structures that may increase shelter access to homeless people.

Figure 12: **Temporary Shelters < 50 sq ft/person (n=104): True shelter area/person v. Official shelter area/person**

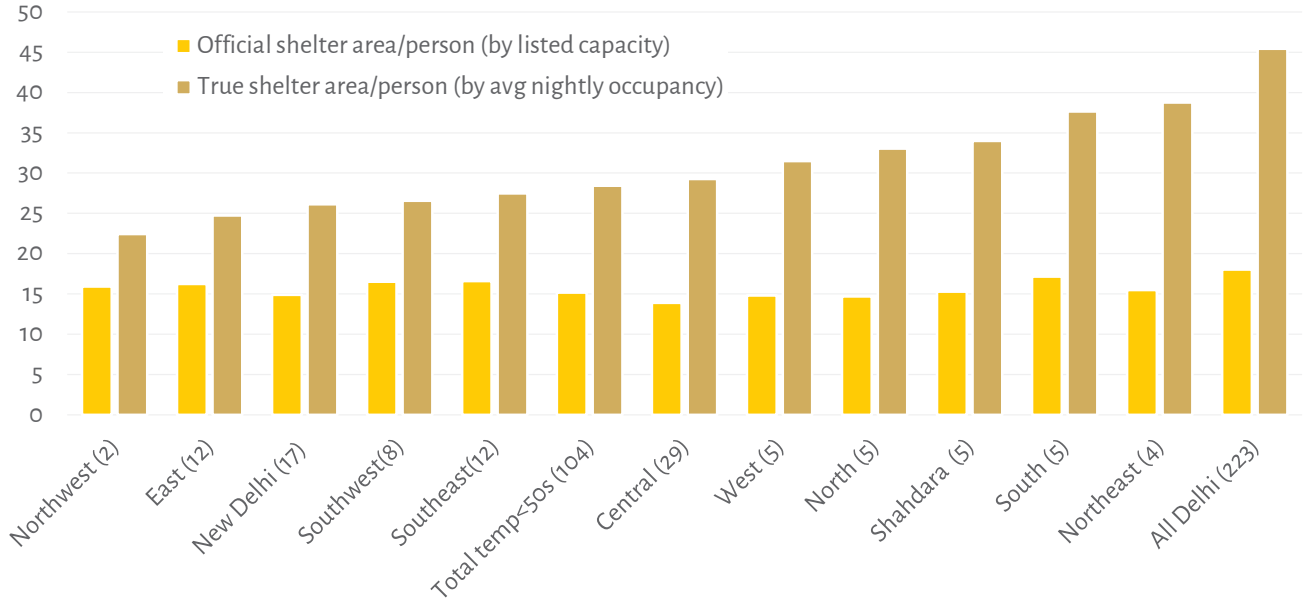

Figure 12: Temporary Shelters that provide less than 50 square feet of space to shelter residents. A comparison between true and official shelter area by district (March 22 – May 14, 2020), data sources: DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

I examine portacabin, or ***temporary***, shelters that by true area afford less than 50 sq. ft., on average, to shelter residents.

(ii) Districts that do not have enough shelters to accommodate their homeless populations. A close look at ***shelter-deficit districts*** helps identify specific locations in the city where more shelters are required.

I examine districts that experience (i) rising populations, as per Census 2011, **and** (ii) have shelters that accord less than 50 sq ft per shelter to its current shelter residents (true area).

(iii) Shelters across the city that may have enough space to accommodate more residents.

I examine shelters that provide more 100 sq ft per person to current users (true area), understood in relation to the batch of shelters that provide at least 50 sq ft per person.

Figure 13: **Temporary Shelters < 50 sq ft/person: True shelter area v. Official occupancy rate**

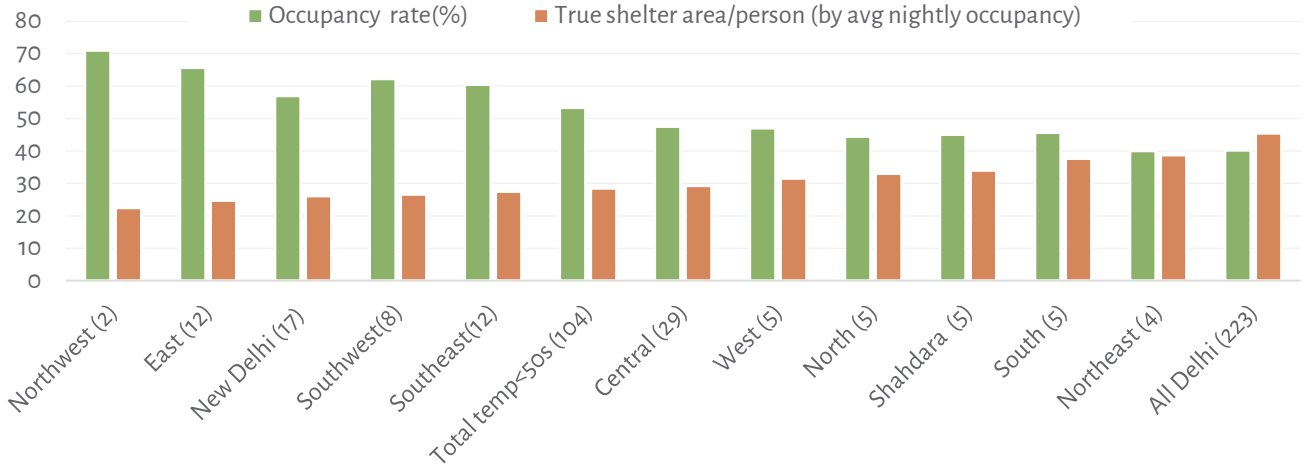

Figure 13: Temporary shelters that provide on average less than 50 square feet of space to shelter residents (March 22 – May 14, 2020), data sources: DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

Figure 14: **Women's + Family temporary shelters < 50 sq ft/ person (n=27): True shelter area v/ Official shelter area**

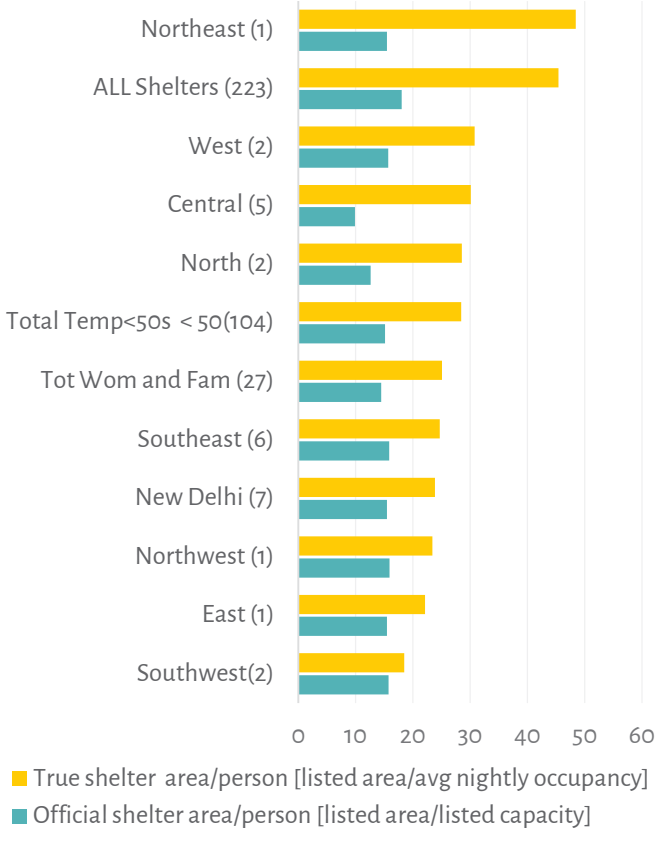

Figure 14: Women's and family shelters that provide on average less than 50 square feet of shelter space to residents. A comparison between true shelter and official shelter area (March 22-May 14, 2020), data source(s): DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

3. Shelter Space Shortages Across Temporary Shelters

One solution to the shelter floor space shortage problem may be to expand or replace overcrowded 'temporary' portacabins. Delhi's 78 'permanent' building shelters are dilapidated community and banquet halls that were handed over to local government authorities. Buildings have the most space **(figure 6)** but 29 of them (nearly three-fourths are concentrated in Central district) provide just 30.3 square feet of space (true area) to 1024 residents – 50% of the officially listed capacity for these shelters. These shelters should be renovated. It may not be possible to expand them in the short run. For that kind of immediate action to be possible, we need to examine 'temporary' portacabin shelters.

Nearly half (46.45%) of all Delhi shelter residents live in portacabin shelters (n=104, 46.6% of all shelters) that provide less than 50 square feet of personal space (hereafter referred to as temp<50s). By official parameters, temp<50s are 'half-full' (52% occ rate). Like New Delhi and East district shelters, this specific batch affords its residents nearly half the NULM guideline recommended amount of space **(Figure 12)**.These shelters also border on full capacity to congestion and should be considered high-risk for COVID-19 contagion **(Figure 13)**.

Now that we have identified one major 'high-risk shelter type we need to locate where in the city it is likely to be found. Two distribution patterns emerge. First, temp<50s are heavily concentrated in one district. They comprise 34% of Central Delhi's total shelters (n=29) and only officially allot 13.85 square feet of space to

Figure 15: **Wom + Fam Temp shelters < 50 sq ft/person (n=27): True shelter area v Official Occupancy rate**

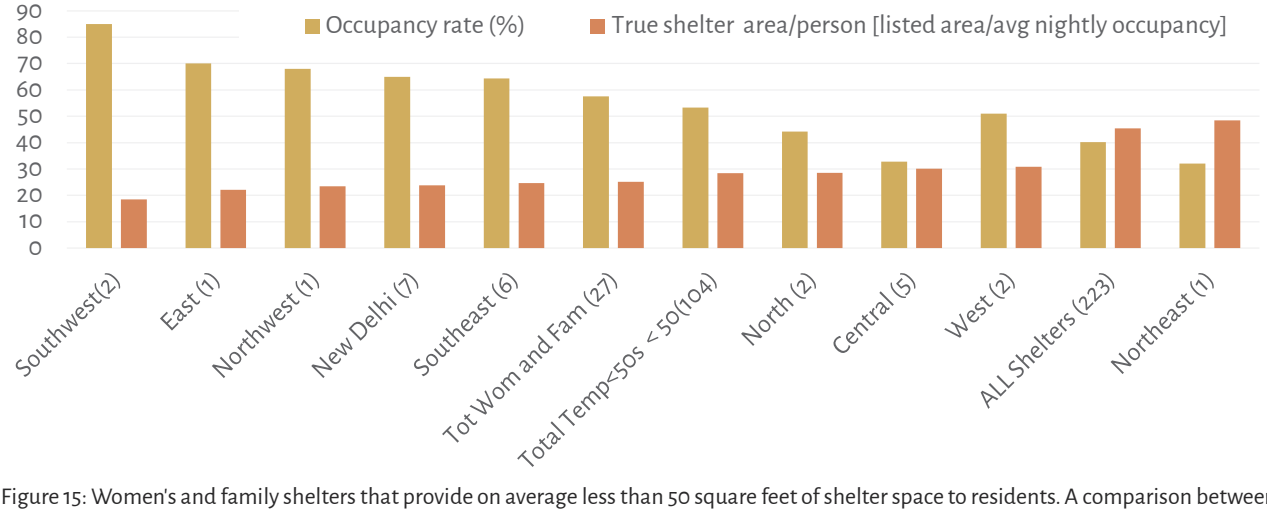

Figure 15: Women's and family shelters that provide on average less than 50 square feet of shelter space to residents. A comparison between true area and official occupancy rates,(March 22 – May 14, 2020) data sources: DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

each prospective resident**(Figure 12)**. In reality – that is, according to usage - 947 residents, or 28% of all temp<50 residents and 13% of all shelter users, only have 29 square feet of space between them. By the NULM 50 square foot NULM guideline, we must again conclude that Central district's temp<50 occupancy rate (47%) reveals a state of full capacity **(Figure 13)**. I explore in section (iii) other shelters in Central districts that have room to accommodate more people.

The second pattern, however, emerges in districts without such options. Temp<50s comprise most shelter options in five of Delhi's eleven districts: New Delhi(17 shelters; 81% of district shelters), East (12; 67%), Southeast (12; 20%) Southwest (8; 57%) and South (8; 55%) **(Figures 12 and 13)**. Select districts exhibit extremely low true shelter area (below 30 square feet) and high occupancy rates (over 50%). Homeless people in East, New Delhi, Southwest and Southeast districts are vulnerable to overcrowded shelter conditions.

Single women, families and children in New Delhi and Southeast are especially vulnerable to shelter exclusion

Figure 16: **AIIMS [lockdown] tent + portacabin shelters (11)**

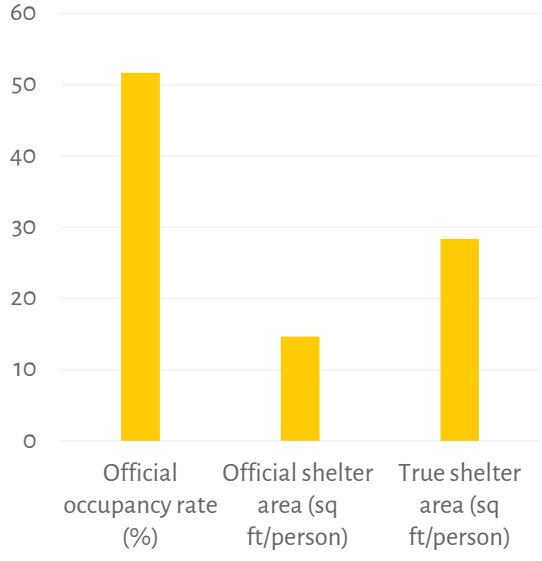

Figure 16: Spatial context of AIIMS 'lockdown' temporary shelters in which Covid-19 positive cases were detected (March 22 – May 14, 2020), data sources: DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

Figure 17: **10 Most Overcrowded Temporary Shelters**

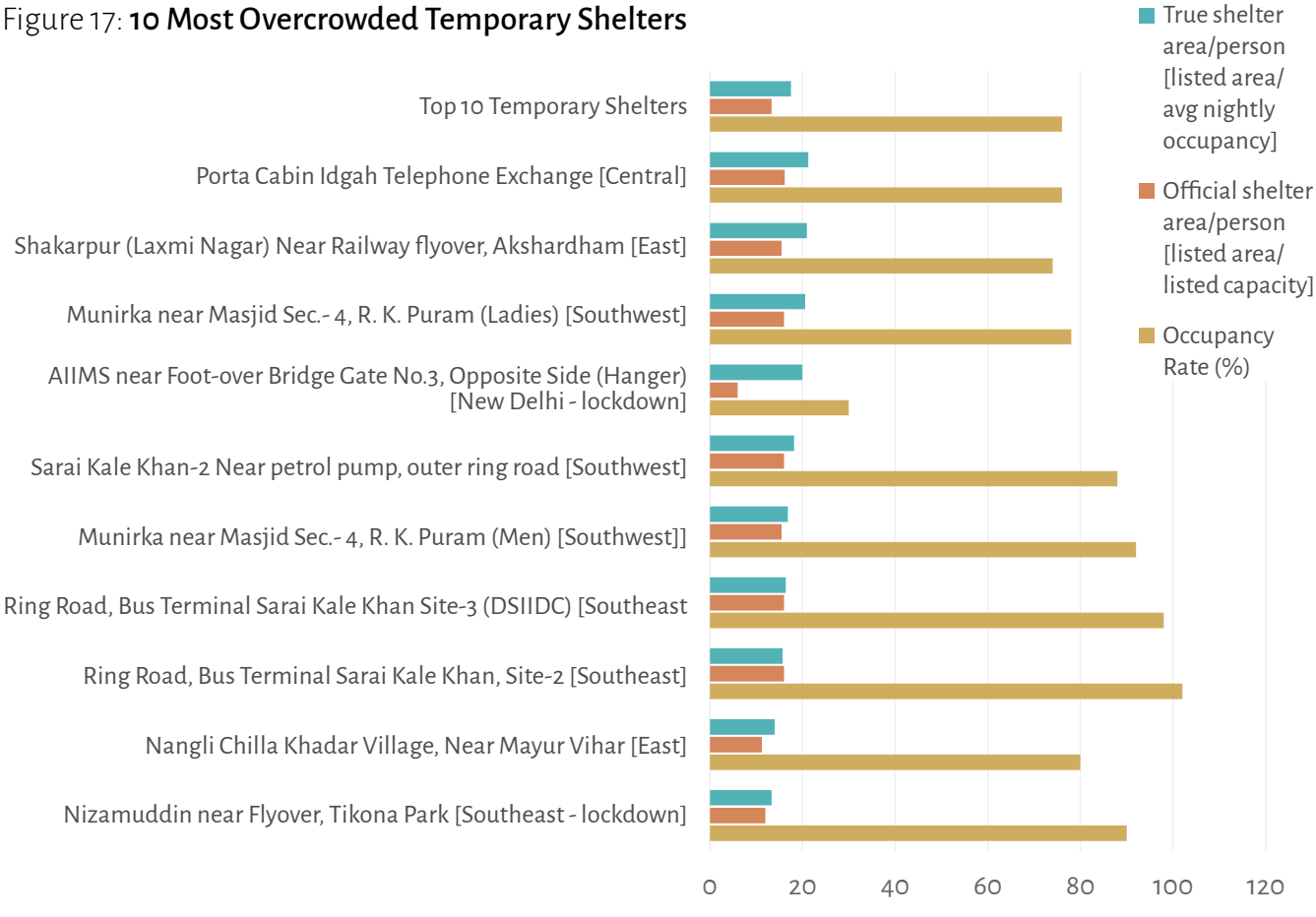

Figure 17: Ten most overcrowded temporary shelters, (March 22 – May 2014) data source(s): DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

(figures 14 and 15). The official occupancy rates of women's & family shelter temp<50s, respectively, in these districts are 65% and 62%. The true shelter areas of these spaces are 25 square feet, half the national guideline. Each of the 9 single women's shelters in Delhi provide far below 50 square feet per resident – averaging just 26.8 square feet per person among the 254 women able to stay in these spaces.

who in comparison to single homeless men, have less shelter options across the city (Figures 8-11).

The 50 people who tested Covid-19 positive in late May lived in or among a cluster of temp<50 shelters in AIIMS **(Figure 16)**. Ten were tents set up during the winter and extended for the lockdown period specifically. In this context, temp<50 shelters across the city should be identified as high-risk Covid-19 spaces.

Figure 18: **Ten Most Overcrowded Shelters (All Types)**

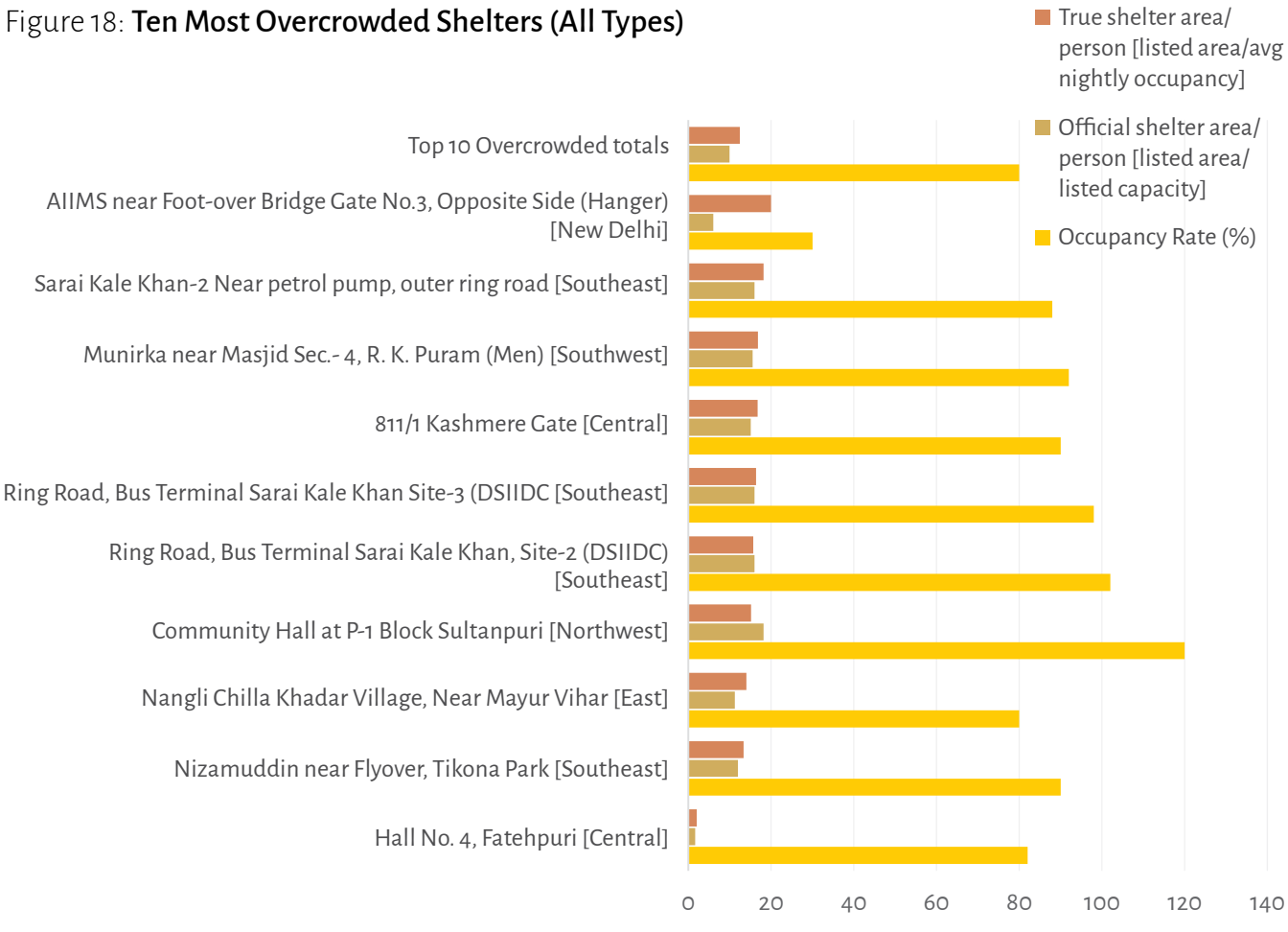

Figure 18: Ten Most Overcrowded Shelters in Delhi, (March 22 – May 14, 2020) data source(s): DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

Delhi's cramped shelters – temporary shelters with low true area and high occupancy rates - are concentrated in:

(i) The city's most densely populated homeless enclaves, in which other shelter options do exist(Central district);

(ii) nearly half of the city's districts overall, which lack other shelter options; and

(iii) special shelters for families, women and children,

One of these AIIMS shelters ranks among the ten most overcrowded in the city. Based on official occupancy rates, overcrowding in this shelter is dangerously high **(figures 17 and Figure 18)**. The top ten overcrowded shelters **(figure 18)** in the city operate at 80% official capacity and are, again officially, intended to accommodate 595 people with 9.98 square feet of personal space among them. Conditions of Ring Road's Sarai Kale Khan shelters in Southeast Delhi **(figures 17 and 18)** raise a necessary question. Are shelters that

Figure 19: **Shelter-deficit districts: Avg True Areas < 50sq feet in districts with rising populations**

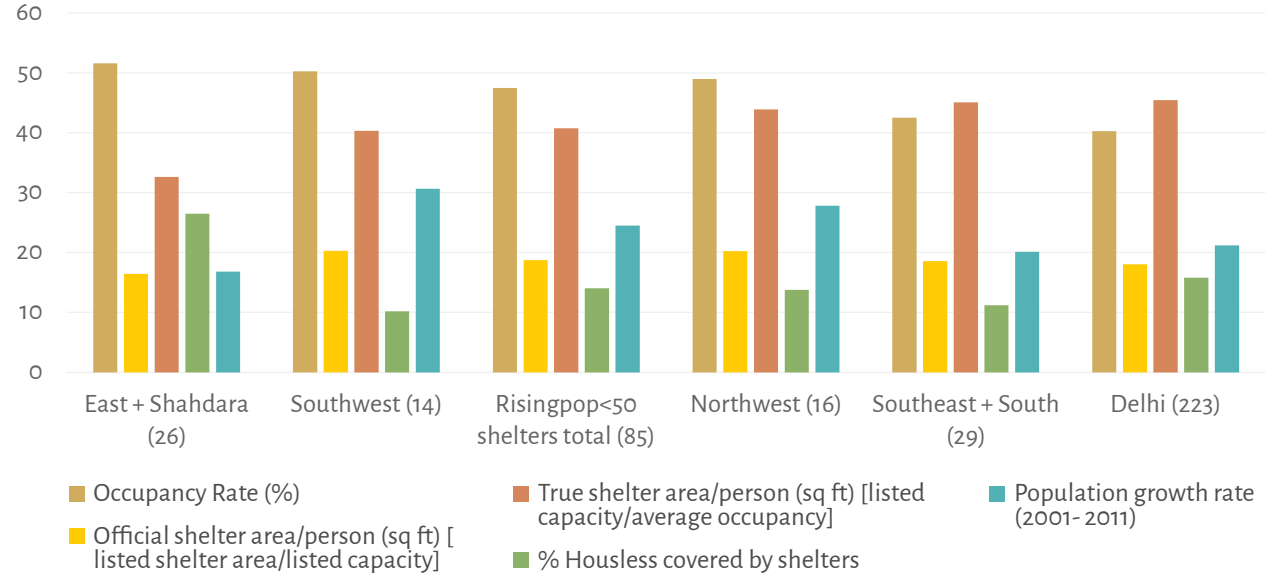

Figure 19: Districts with rising overall populations with shelters that provide on average less than 50 square feet of shelter space to residents

are technically fully occupied (98% and 102% official occupancy rates, respectfully) and provide 16 sq. ft. of space to its residents optimal?

4.Shelter-deficit districts

Homeless people cannot access shelter equitably because there isn't enough livable space available across shelters in operation. This is a planning failure. As I discussed earlier, policymakers treated critical factors such as where shelters should be built (geographic distribution), how many people they should accommodate (shelter capacity) and how much space they should provide (official and true area)as mutually exclusive issues . The legacy of this lack of coordination carries forth today, expressed as two problems that occur city and district-wide. One is a ***coverage problem*** -- the gap between (i) the number of homeless people to whom the government has officially committed shelter

Figure 20: **Shelter-deficit district(s) in focus: South Delhi**

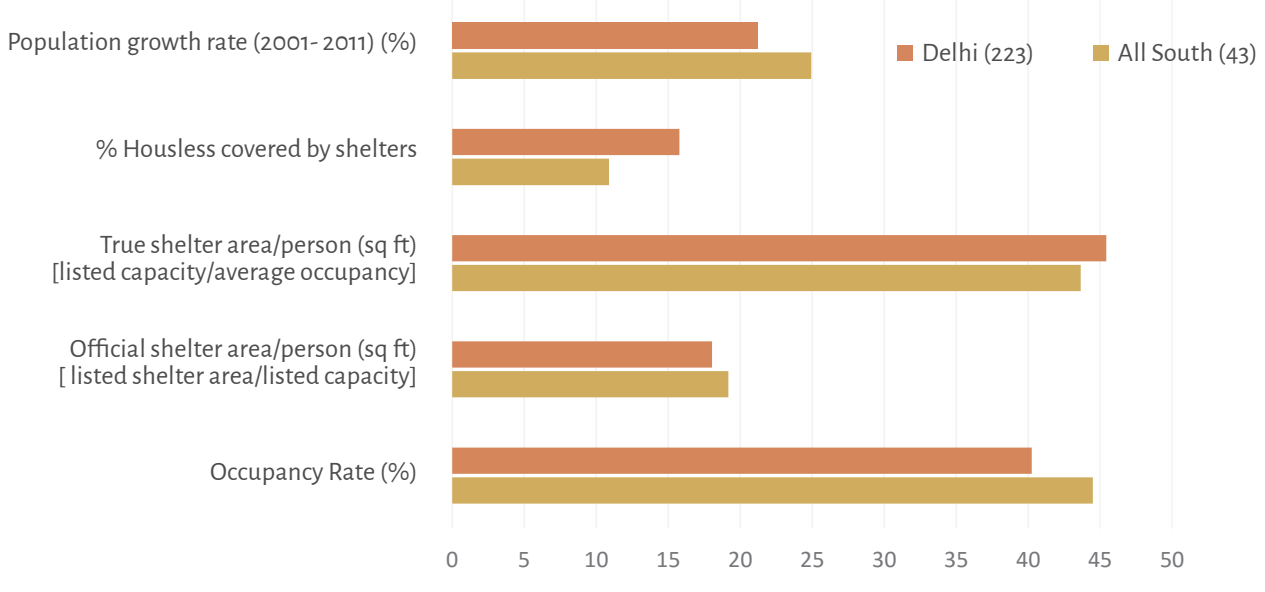

Figure 20: Shelter-deficit district(s) in focus: South Delhi, data sources: Census 2011, DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

Figure 21: **Shelters > 50 sq ft true area) (n=72)**

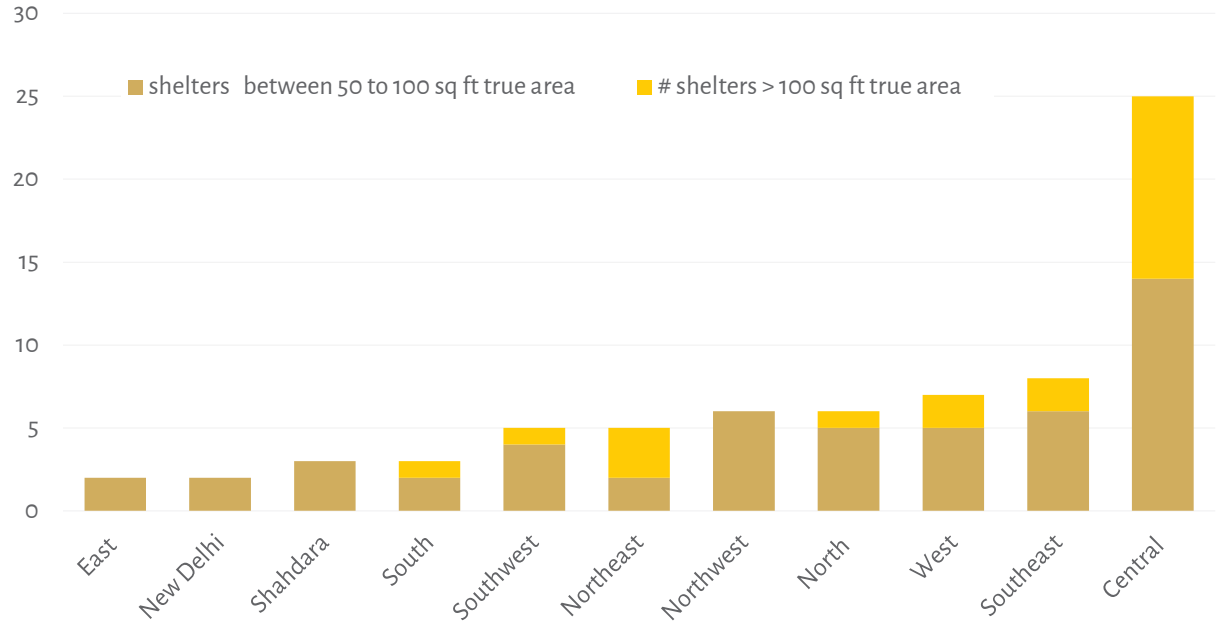

Figure 21: Delhi shelters that provide on average more than 50 square feet of shelter space to residents (March 22 -May 14, 2020), data source: DUSIB Occupancy Index

and (ii) the homeless population count(s) **(Figures 7 and 8)**. The other is a *spatial problem*. It occurs when the average area of personal space provided to existing shelter residents in a given region falls below 50 square feet (true area) **(figures 10 & 11).** Most districts in Delhi exhibit these coexisting problems.

However, regions that experience both problems *and high* overall population growth rates[25] are truly *shelter-deficit*, since difficulties local governments currently have to provide homeless people shelter will *increase* until shelter space is expanded in proportion to current and expected demand . Four regions comprising East+Shahdara, South+Southeast, Southwest and Northwest districts[26] meet this criteria **(figure 19)**. There is a risk that homeless people who live and work in these locations will continue to be excluded from shelters and that overcrowding in the existing stock will increase **(figure 19).**

By comparison, although official shelter capacities in New Delhi district are below the homeless population estimate *(coverage problem)* and those in operation provide abysmally little space to people who do use them *(spatial problem)*, the overall district population is decreasing, indicating the potential to concomitantly address current and future problems by increasing shelter space in this region quickly.

Nearly 43% (20,371) of Delhi's homeless live in districts with (a) rising populations that (b) do not provide adequate shelter space (indicated by true areas<50sq ft) **(figure 19)**. Th percentage of homeless people who use shelter and the amount of space available to them are both less in *shelter-deficit* districts than in Delhi overall (2860 people, or 14.04% of the region's homeless population, use 85 shelters that provide, on average, 40.75 sq ft/person) while the rate of population growth in this region (24.49%) outpaces the city (21.21%) **(figure 19)**.

A comparison between shelter-deficit districts and Central Delhi – this district alone has nearly the same number of shelter residents (3088) and shelters (82) - reveals why population growth should factor in decisions on where and how big to build shelters to address current and future demand crunches. Central Delhi shelters provide less than 50 square feet of space to residents, indicating a spatial problem. Yet, their (a) total official capacity nearly equals the district Census homeless count and, like New Delhi district, Central Delhi's (b) overall population is decreasing. Population growth in regions already hamstrung by coverage gaps and space shortages is a predictor of imminent risk to the spread of COVID 19 and future demand crunches. In this context, people on the streets in the South region – South, Southeast and Southwest districts respectively – are highly vulnerable to continued shelter exclusion and overcrowding. One indication of current distress is that five of the city's most overcrowded shelters are in this region **(figures 17 and 18)**. But future shortages are

on the horizon given that the region's 43 shelters cover just 11% of the homeless population while its population growth rate outpaces the city, overall **(figure 20)**.

5. In Search of Space: Shelters That Can Accommodate More People

Delhi has 72 shelters (47 permanent buildings, 23 portacabins and 2 tents) that accord more than 50 square feet of space to residents currently using these spaces (true shelter area) – an average, among this group, of 89 sq ft/person **(figure 21)**. 21 of the 72 shelters provide more than 100 square feet to each resident, an average of 182 square ft/person across. A focus on this group – hereafter called allshelt>50s[27] -reveals potential spaces amid systemic shelter shortages that exist and may accommodate more homeless people.

While DUSIB allotted 40% of total shelter capacity to these allshelt>50s (7404 of 18478 intended residents), only one-fourth that amount used them between March 22 to May 14 (n=1796). As mentioned earlier, 50 square feet of personal space is not much. Since we need to identify shelters that may have room for more people it is necessary to locate geographies where potentially unused shelter space is concentrated – areas that, based on actual usage, offer considerably more than 50 square feet/person.

Based on a 100 square feet cut-off, Central Delhi potentially has pockets of shelter space that can serve more people. The district's 25 allshelt>50s provides an average 105 square feet per person **(figure 22).** More than half the city's shelters that accord over 100 sq feet are concentrated in this district (averaging 182 square feet) **(figure 24).** Central Delhi has an abundance of temp<50s, overcrowded buildings and potentially underutilized shelters. It may therefore be possible to accommodate more people under existing stock without having to expand or build new shelters, as is the case in New Delhi and shelter deficit-districts, respectively.

Six of the city's ten most spacious shelters are located in Central Delhi **(figure 25)**. Four shelters are reserved for men (L-block; Tank Road; Phool Mandi; and Shahzada Bagh) and one for women (Kharian Mohalla). Another is a drug de-addiction center (Community center Parda Bagh).

Locating additional space will help curtail risks to further Covid-19 spread in the near term. In the long-term, this will also reduce overcrowding in other shelters and the number of people who are shut out of the shelter system.

The Jhandewalan case provides insights. Five people tested positive in this four building shelter cluster in Central Delhi. These shelters officially accommodated 70 to 100 persons (providing between 14.62 sq to 26.11

Figure 22: **Shelters > 50sq ft (n =72): True area v Official area**

Figure 22: Shelters that provide more than 50 square feet of shelter space to residents (March 22 – May 14, 2020). A comparison between true shelter area and official shelter area, data sources: DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

sq ft to prospective residents). Between March 22 and May 14, the occupancy rate of this cluster was 46% and its residents had on average 48.58 square feet of space between them. During the lockdown, there was an intensity movement of homeless people and social workers in restricted spaces- to avail and provide food, medicine and shelter. In this context, the NULM 50 square feet space guideline may have been insufficient to ensure social distancing even after cases were identified. It is urgent that policymakers provide access to Central Delhi's relatively spacious shelters to more homeless people. This district has the most shelters (82, 36.7% of total; including 8 of 30 'lockdown' shelters) and residents (3038; 41.5% of all shelter residents). Its shelters have a below average official occupancy rate (34.9%). Residents who use these shelters have on average below 50 square feet of personal space. But the district has the most shelters that provide more than 50 square feet per person. Policymakers could stem future crises by notifying shelters in this district that can, based on true rather than official utilization criteria, accommodate vulnerable homeless people as first-responder sites of service delivery. This also implies that the government increase space across all shelters to at least NULM guidelines. The Jhandewalan case shows us that additional shelters in locations known to suffer congestion and overcrowding could quell existing public health risks.

6. Conclusion and Recommendations

Access to Delhi's shelter system is limited by poorly distributed shelter space across the city. This is why less than half the city's intended beneficiaries (DUSIB official capacity) and less than one-fifth of those officially deemed homeless (Census 2011) can access the system. Emergency shelters constructed during winters and, more recently, India's Covid-19 lockdown do not provide an additional amount of shelter space sufficient to plug these severe shortages. Foundational problems

Figure 23: **Shelters > 50sq ft (n=72): True Area v Official Occupancy Rate**

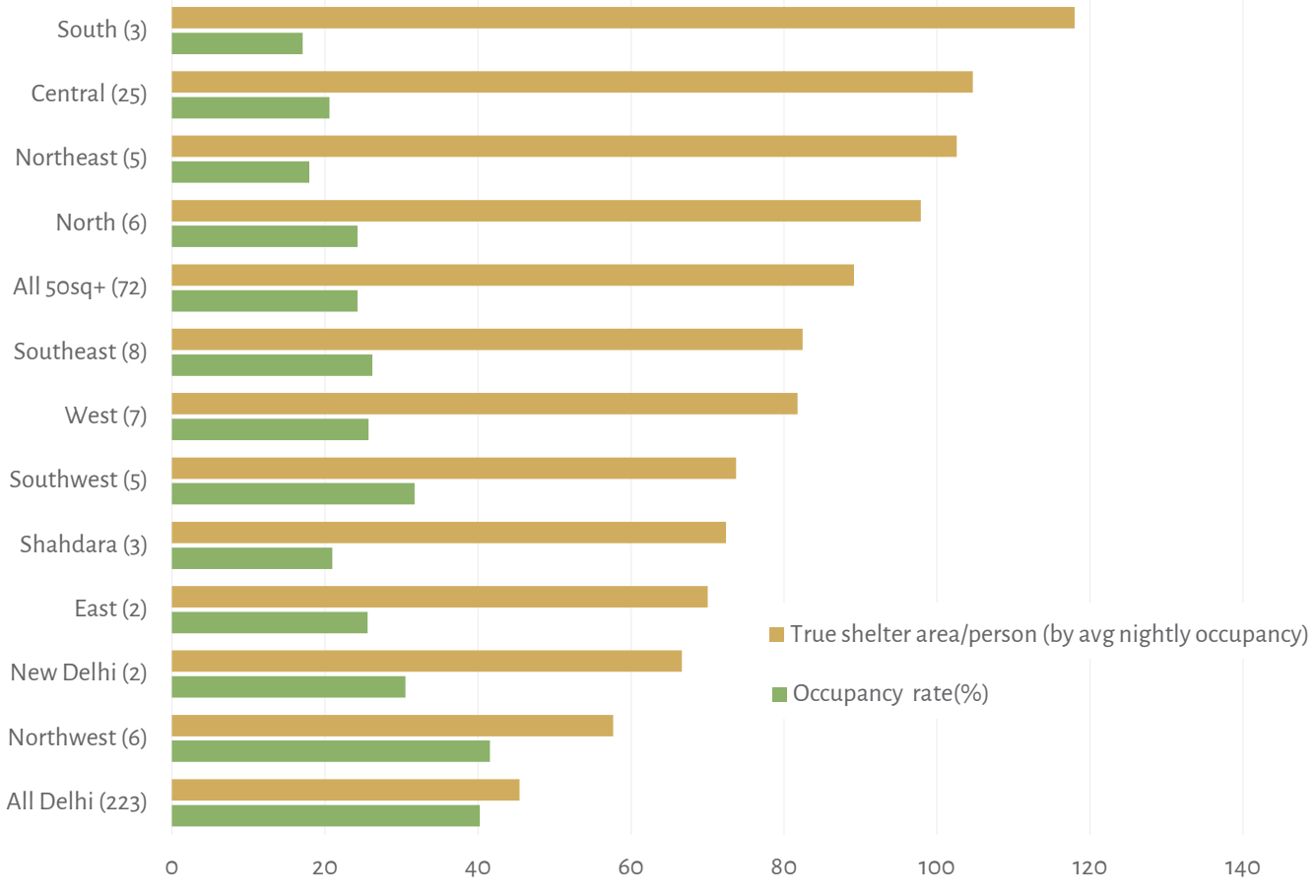

Figure 23:Shelters that provide more than 50 square feet of shelter space to residents (March 22 – May 14, 2020). A comparison between true shelter area and official occupancy rates, data source(s): DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

of limited coverage and space deprive Delhi's homeless shelter access and cause overcrowding in ones that people can use. Overcrowding puts homeless residents at risk to contracting COVID-19 and makes the city more vulnerable to the continued spread of the disease. Therefore, the structural – that is, space and coverage - gaps of Delhi shelter's system that are rooted in planning failures :

(i) perpetuate and deepen existing access inequalities while

and deemed high Covid risk shelters (high true area) in need of urgent intervention (not merely immediate shuttering, as happened in AIIMS).

In this context, the government should take the following measures:

- Notify AIIMS, Jhandewalan and all other shelters where residents have tested Covid-19 positive as high-risk.
    - Begin widespread testing in those areas and in all Delhi shelters.

Figure 24: **Shetlers > 100 sq ft true area (n=21)**

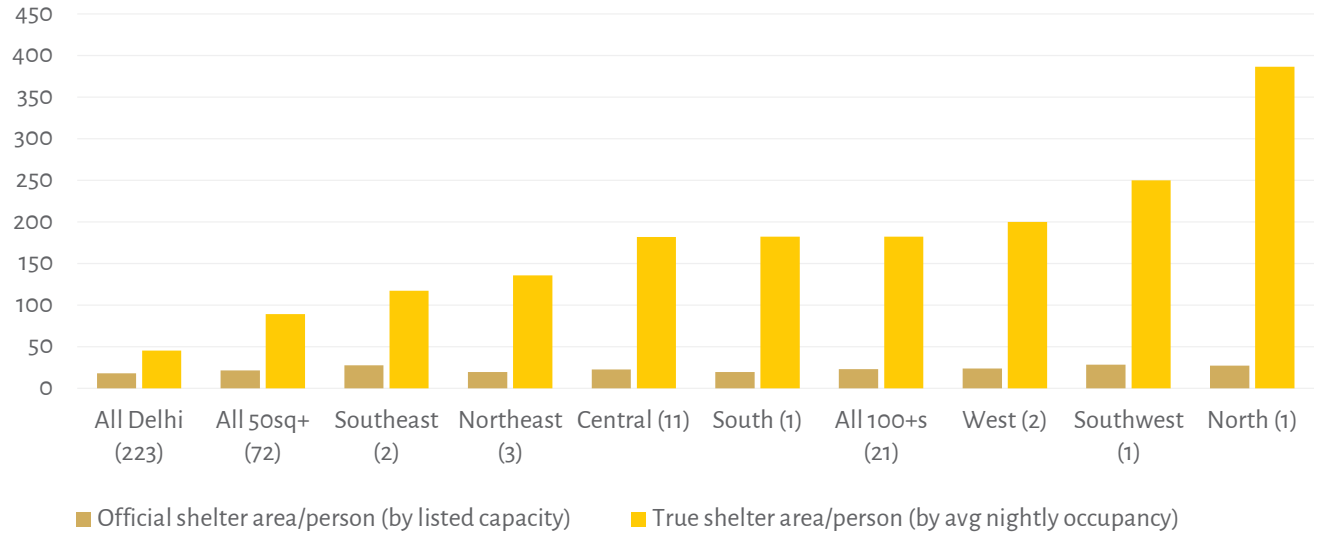

Figure 24:Shelters that provide more than 100 square feet of shelter space to residents (March 22 – May 14, 2020). A comparison between true shelter area and official shelter area, data source(s): DUSIB Occupancy Index and DUSIB Nightly Occupancy Report

(ii) are transformed, during a pandemic, into public health risks by increasing the likelihood of infection and contagion.

The measure of true area presented throughout this paper would better inform long-term and crisis related shelter and allied service decisions. Low true area indicates potential surplus shelter space and therefore specific shelters that could accommodate more people. High true area indicates congestion and therefore locations that require either an expansion of shelter space or more shelters. By understanding *how much* shelter space is being used during this pandemic we could, as one example, notify specific shelters that can be used as both quarantine facilities (based on low true area)

- Contact tracing may be difficult. Therefore, identify labour and service geographies that people in vulnerable and affected shelters use to identify additional testing sites.

- Increase space of temporary shelters that currently provide less than 50 square feet to current users **(Appendix 1)**.
    - This can either be accomplished by expanding existing shelter space or replacing temporary shelters with much larger structures.
    - Enlist public health officials to identify and examine COVID-19 infection and contagion

Figure 25: **Ten Most Spacious Delhi Shelters**

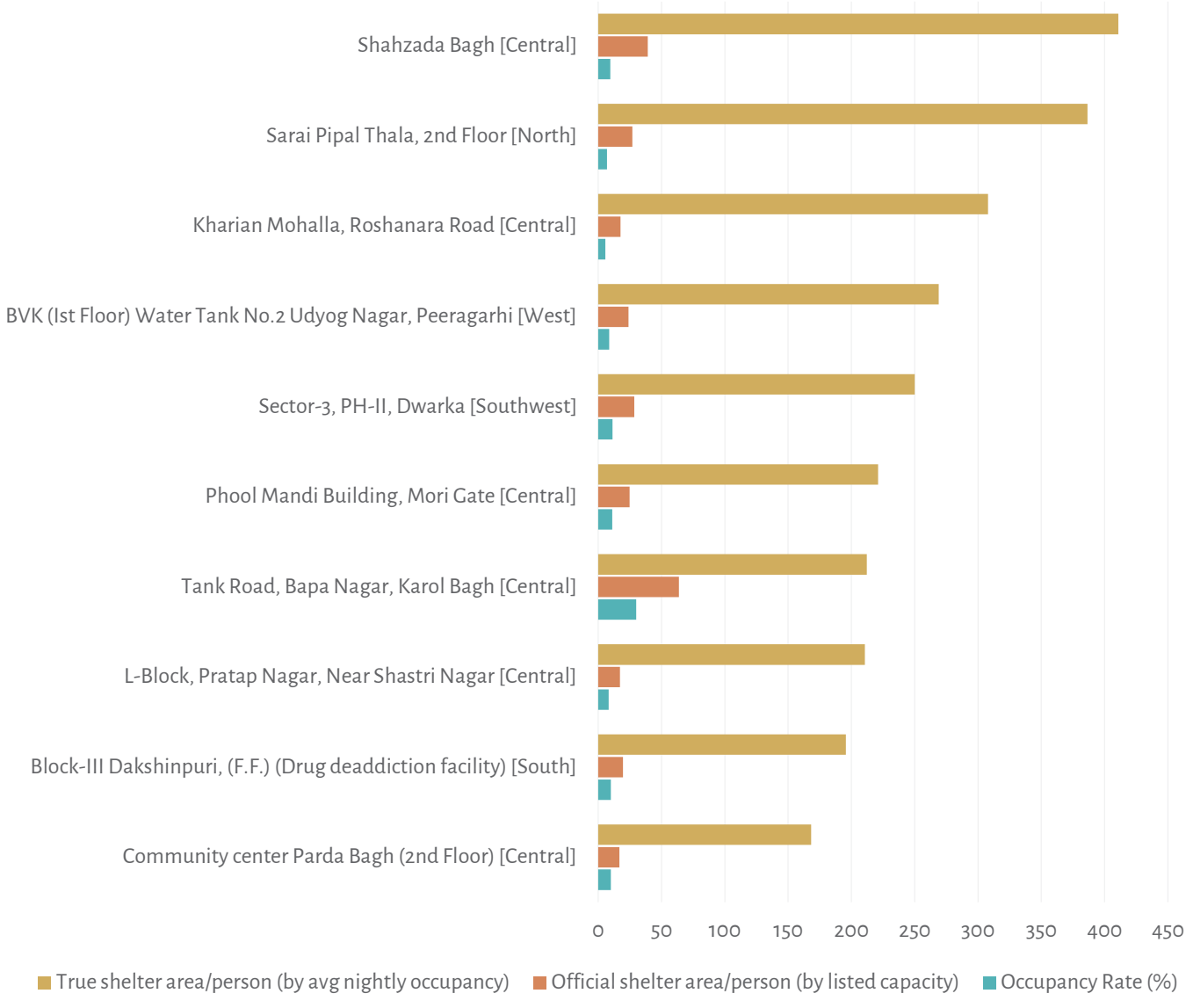

Figure 25: Ten most spacious shelters in Delhi (March 22 – May 14, 2020), data source: DUSIB Occupancy Index

risks this type of shelter poses to shelter staff and residents, communicate such information to them and work with government officials and NGOs to relocate people from overcrowded shelters and shelter-deficit districts to buildings that have more space.

- Survey shelter-deficit districts with NGOs and local government officials to ascertain homeless enclaves that lack shelter, shelter space and adequate facilities, such as water and first aid kits **(Appendix 2)**.
  - For immediate action: provide shelters with adequate space in most deprived locations, such as where migrant homeless people live and work without shelter.
  - For long-term action, policymakers must peg shelter needs to demands in context of rising population rates, which can be ascertained by a shelter planning survey and/or the next Census (which will be delayed).
- Devise and conduct a coordinated strategy for the provision of shelter space in Central District. As this report has shown, the district has a mix of overcrowded **(Appendix 1)** and underutilized shelters **(Appendix 3)**. Because population growth rates are declining in this district, policymakers can identify current underutilized shelters to provide immediate relief to people on the streets and in congested shelters as a strategy to both potentially curb current and future demand crunches.

Appendix 1

Temporary shelters that provide on average less than 50 square feet of shelter space to residents

Code	Shelter Name	Type	Demographic	DUSIB Listed capacity	Avg nightly occupancy	Occupancy rate	District	Listed shelter area	Official shelter area per person (by listed capacity)	True shelter area per person (by avg occ)
557	Nizamuddin near Flyover, Tikona Park	tent	General	50	45	0.9	Southeast	600	12	13.33
150	Nangli Chilla Khadar Village, Near Mayur Vihar	porta	General	50	40	0.8	East	560	11.2	14
231	Ring Road, Bus Terminal Sarai Kale Khan, Site-2 (DSIIDC)	porta	Families	50	51	1.02	Southeast	801	16.02	15.71
232	Ring Road, Bus Terminal Sarai Kale Khan Site-3 (DSIIDC)	porta	Families	50	49	0.98	Southeast	801	16.02	16.35
220	Munirka near Masjid Sec.- 4, R. K. Puram (Men)	porta	Families	50	46	0.92	Southwest	775	15.5	16.85
134	Sarai Kale Khan-2 Near petrol pump, outer ring road	porta	Families	50	44	0.88	Southeast	801	16.02	18.2
575	AIIMS near Foot-over Bridge Gate No.3, Opposite Side (Hanger)	tent	Families	100	30	0.3	New Delhi	600	6	20
94	Munirka near Masjid Sec.- 4, R. K. Puram (Ladies)	porta	Women	50	39	0.78	Southwest	801	16.02	20.54
95	Shakarpur (Laxmi Nagar) Near Railway flyover, Akshardham	porta	General	50	37	0.74	East	775	15.5	20.95
211	Porta Cabin Idgah Telephone Exchange	porta	General	50	38	0.76	Central	807	16.14	21.24
98	Yamuna Bazar Old Bridge	porta	General	50	39	0.78	Central	831	16.62	21.31
240	Dandi Park - III Near Pusta	porta	General	160	112	0.7	Central	2400	15	21.43
138	Kali Mandir, Sector - 3 Rohini for Men	porta	General	50	37	0.74	Northwest	796	15.92	21.51
142	Opp. Mayur Vihar metro station yamuna khadar	porta	General	50	42	0.84	East	915	18.3	21.79
248	Sabzi Mandi Tilak Nagar TNS-4	porta	General	70	34	0.49	West	751	10.73	22.09
131	Akshardham Temple near Metro Station	porta	Families	50	35	0.7	East	775	15.5	22.14
145	Ganesh Nagar near Mother Dairy, Laxmi Nagar	porta	General	50	35	0.7	East	775	15.5	22.14
208	Fountain chowck Chandni Chowk	porta	General	50	36	0.72	Central	800	16	22.22
110	Nilothi Extension near fish market, Near Dwarka	porta	General	50	36	0.72	Southwest	801	16.02	22.25
233	Bangla Sahib Gurudwara Site-5	porta	Families	50	36	0.72	New Delhi	801	16.02	22.25
137	Raja Garden -II Near Raja Garden Chowk, Opposite City Square Mall.	porta	Families	50	35	0.7	West	781	15.62	22.31
111	Chilla Goan dist Centre, Hilton Hotel (Mayur Vihar)	porta	General	50	34	0.68	East	775	15.5	22.79
84	Bangla Sahib for Male	porta	General	50	35	0.7	New Delhi	801	16.02	22.89
234	Bangla Sahib Gurudwara Site-6	porta	Women	50	35	0.7	New Delhi	801	16.02	22.89
600	AIIMS near Footover Bridge, Gate No. 3	tent	General	75	26	0.35	New Delhi	600	24	23.08
608	AIIMS Safdarjung Road Side outside Raj Griha Vishram Sadan, Gate No. 5	tent	General	50	26	0.52	New Delhi	600	12	23.08
236	Sarai Kale Khan Near Bus Terminal Pota Cabin No. 2 (Parking Side)	porta	Families	180	115	0.64	Southeast	2690	14.94	23.39
206	Kali Mandir, Sec-3, Rohini	porta	Women	50	34	0.68	Northwest	796	15.92	23.41
85	Bangla Sahib-1	porta	Women	50	34	0.68	New Delhi	801	16.02	23.56
104	Gurudwara Bangla Sahib	porta	General	50	34	0.68	New Delhi	801	16.02	23.56
117	Raza Bazar, Bangla Sahib	porta	Families	50	34	0.68	New Delhi	801	16.02	23.56
99	Jama Masjid-1	porta	Women	50	37	0.74	Central	877	17.54	23.71
241	Dandi Park - IV Near Pusta	porta	General	190	101	0.53	Central	2400	12.63	23.76
113	Jama Masjid (iii) Family	porta	Families	50	34	0.68	Central	816	16.32	24
226	Near Britainia Chowk	porta	Families	70	33	0.47	North	800	11.43	24.24
91	Safdarjung Near Safdarjang Airport Flyover	porta	Families	50	33	0.66	New Delhi	801	16.02	24.27
148	AIIMS Safdarjung Side near Raj Griha Vishram Sadan	porta	Families	325	237	0.73	New Delhi	5864	18.04	24.74
97	Yamuna Bazar opp. Hanuman Mandir	porta	General	50	30	0.6	Central	816	16.32	27.2
216	Dandi Park - I	porta	General	50	30	0.6	Central	816	16.32	27.2
214	Anand Vihar -1 (Male)	porta	General	50	29	0.58	East	800	16	27.59
215	Yamuna Bajar Near Hanuman Mandir	porta	General	50	29	0.58	Central	800	16	27.59
238	Opp. Chattarpur Mandir (4 Nos Cabins)	porta	General	50	39	0.78	South	1076	21.52	27.59
143	Sector-12, Dwarka	porta	General	50	29	0.58	Southwest	801	16.02	27.62
130	Geeta Colony, Shamsan Ghat	porta	General	50	28	0.56	East	775	15.5	27.68
201	Shastri Park (Theka) Near Wine Soap	porta	General	50	28	0.56	Shahdara	775	15.5	27.68
228	Behind Hanuman Mandir	porta	General	50	28	0.56	Central	800	16	28.57
161	Mori Gate Terminal - 1	porta	General	70	28	0.4	Central	816	11.66	29.14
204	Chand Cinema Kalyanvas	porta	General	50	27	0.54	East	800	16	29.63
112	Nasirpur, Near Dwarka	porta	General	50	27	0.54	Southwest	801	16.02	29.67
122	Taimur Nagar, Okhla near Dhobi Ghat	porta	General	50	27	0.54	Southeast	801	16.02	29.67
205	Near DLF corner road no - 70 new seemapuri	porta	General	50	26	0.52	Shahdara	775	15.5	29.81
116	Hanuman Mandir Yamuna Bazar	porta	General	50	27	0.54	Central	816	16.32	30.22
210	Mori Gate Terminal - 2	porta	General	50	27	0.54	Central	816	16.32	30.22
245	Munirka	porta	General	50	30	0.6	Southwest	915	18.3	30.5
114	Jama Masjid-IV	porta	General	50	28	0.56	Central	862	17.24	30.79
80	GTB chowk Near GTB Hospital	porta	General	50	25	0.5	Shahdara	775	15.5	31
118	Nangli Khadar, Near Ramchirtr Manas temple Near Mayur vihar	porta	General	50	25	0.5	East	775	15.5	31
127	Kalkaji Mandir	porta	Women	50	26	0.52	Southeast	807	16.14	31.04
621	AIIMS near HANGER (Behind Hanger)	tent	General	75	19	0.25	New Delhi	600	8	31.58
221	At Ram Lila Ground (Himmat Garh).	porta	General	50	24	0.48	Central	775	15.5	32.29
209	Jama Masjid-5	porta	Women	50	25	0.5	Central	816	16.32	32.64
108	Kela Godown, Azadpur opp Fortis hospital Shalimar Bagh	porta	General	50	24	0.48	North	800	16	33.33
243	Geeta Ghat-1 Yamuna Bank Near Monestory Ring Road	porta	Recovery Shelter	210	98	0.47	Central	3300	15.71	33.67
203	Pusta Usman Pur near DDA Park.	porta	General	50	23	0.46	Northeast	775	15.5	33.7
217	Dandi Park - II	porta	General	50	23	0.46	Central	775	15.5	33.7
225	Pusta Ushmanpur opp. Jag Pravesh Hospital (Families)	porta	General	50	23	0.46	Northeast	775	15.5	33.7
106	Hayaat Hotel, R.K. Puram opp. Fire Station	porta	General	50	23	0.46	New Delhi	801	16.02	34.83
160	Jama Masjid	porta	General	50	23	0.46	Central	815	16.3	35.43
251	Sarai Kale Khan in Parking, Double Storey at 1st Floor	porta	General	50	49	0.98	Southeast	1744	34.88	35.59
83	At Himmat Garh, Ram Leela Ground.	porta	General	50	22	0.44	Central	800	16	36.36
212	Near MAX Hospital Badli Mor	porta	General	50	22	0.44	North	800	16	36.36
107	Okhla Modi Mill behind TATA Indicom	porta	General	50	22	0.44	Southeast	807	16.14	36.68
136	Mori Gate Gole Chakar	porta	General	50	22	0.44	Central	831	16.62	37.77
109	Cement godown side Shakur Basti-II	porta	General	50	21	0.42	North	800	16	38.1
93	Hari Nagar, Beri Wala Bagh	porta	General	50	23	0.46	West	877	17.54	38.13
230	Dhouli Piao, Vikaspuri	porta	General	50	21	0.42	Southwest	801	16.02	38.14
141	Ram Lila Ground Nand Nagri	porta	General	50	20	0.4	Shahdara	775	15.5	38.75
101	Jama Masjid (ii) Male	porta	General	50	21	0.42	Central	816	16.32	38.86
235	Sarai Kale Khan Near Bus Terminal Pota Cabin No. 1 (Jamuna Side)	porta	General	150	58	0.39	Southeast	2260	15.07	38.97
213	Badarpur Border Near Toll Plaza	porta	General	50	20	0.4	South	796	15.92	39.8
19	Nand Nagari	porta	General	120	45	0.375	Shahdara	1794	14.95	39.87
207	At New Delhi Railway Station near LNJP.	porta	General	50	20	0.4	Central	800	16	40
218	Near Sai Baba Mandir Lodhi road	porta	General	50	20	0.4	Southeast	800	16	40

Code	Shelter Name	Type	Demographic	DUSIB Listed capacity	Avg nightly occupancy	Occupancy rate	District	Listed shelter area	Official shelter area per person (by listed capacity)	True shelter area per person (by avg occ)
584	AIIMS Metro Gate No. 2	tent	General	25	15	0.6	New Delhi	600	8	40
603	Porta Cabin at under Flyover, ISBT, Yamuna Side	tent	General	100	15	0.15	Central	600	12	40
618	Delhi Police Apartment, Noida Link Road.	tent	General	25	15	0.6	East	600	24	40
88	Nehru Place, Opposite MTNL exchange	porta	General	50	20	0.4	South	807	16.14	40.35
92	Sabzi Mandi Tilak Nagar TNS 1	porta	General	50	19	0.38	West	801	16.02	42.16
568	Jama Masjid, Urdu Park-1	tent	Families	25	14	0.56	Central	600	24	42.86
581	Lal Bahadur Shastri Hospital, Khichripur	tent	General	25	14	0.56	East	600	24	42.86
146	Panchsheel Garden Shahdra	porta	General	50	18	0.36	Northeast	775	15.5	43.06
90	District Centre, Behind Hilton Hotel, Janak puri	porta	General	50	21	0.42	Southwest	915	18.3	43.57
903	Porta Cabin, Dev Nagar (Families) (Nos 4 units)	porta	Families	25	9	0.36	North	400	16	44.44
147	Vasant Vihar Behind Pahari	porta	General	50	18	0.36	New Delhi	801	16.02	44.5
129	Nehru Place 2, Metro Station	porta	General	50	18	0.36	South	807	16.14	44.83
250	Sarai Kale Khan in Parking	porta	Families	150	56	0.37	Southeast	2518	16.79	44.96
573	Faridabad Bus Stand, Ring Road ISBT, Yamuna Pushta	tent	Families	200	13	0.07	Central	600	3	46.15
619	AIIMS near Gate No.3	tent	General	34	13	0.38	New Delhi	600	17.65	46.15
622	AIIMS near Footover Bridge Gate No.3	tent	General	25	13	0.52	New Delhi	600	24	46.15
237	Leprosy colony Siriniwaspuri (3 Nos Cabins)	porta	General	50	17	0.34	South	807	16.14	47.47
115	Yamuna Pushta near Nigam Bodh Ghat	porta	General	50	17	0.34	Central	816	16.32	48
105	Yamuna Pushta, Code-105	porta	General	50	16	0.32	Central	775	15.5	48.44
202	Pushta Usmanpur opp. Jag Pravesh Hospital	porta	Women	50	16	0.32	Northeast	775	15.5	48.44
119	Raja Garden-119	porta	Women	50	16	0.32	West	791	15.82	49.44

(End)

Appendix 2

Shelter-deficit districts

Code	Shelter Name	Type	Demographic	DUSIB Listed capacity	Avg nightly occupancy	Occupancy rate	District	Listed shelter area	Official shelter area per person (by listed capacity)	True shelter area per person (by avg occ)
9	IFC, Pocket C, Ghazipur	build-perm	General	160	96	0.6	East	3067	19.17	31.95
10	Shakarpur (Laxmi Nagar) Near Railway flyover, Akshardham	porta	General	50	37	0.74	East	775	15.5	20.95
24	Chilla Goan dist Centre, Hilton Hotel (Mayur Vihar)	porta	General	50	34	0.68	East	775	15.5	22.79
36	Geeta Colony, Shamsan Ghat	porta	General	50	28	0.56	East	775	15.5	27.68
41	Akshardham Temple near Metro Station	porta	Families	50	35	0.7	East	775	15.5	22.14
42	Opp. Mayur Vihar metro station yamuna khadar	porta	General	50	42	0.84	East	915	18.3	21.79
43	Ganesh Nagar near Mother Dairy, Laxmi Nagar	porta	General	50	35	0.7	East	775	15.5	22.14
45	Nangli Chilla Khadar Village, Near Mayur Vihar	porta	General	50	40	0.8	East	560	11.2	14
46	Chand Cinema Kalyanvas	porta	General	50	27	0.54	East	800	16	29.63
50	Anand Vihar -2 (Female)	porta	Women	50	11	0.22	East	800	16	72.73
55	Laxmi Nagar near Metro Station	tent	General	25	28	1.12	East	NA	NA	NA
62	Trilokpuri BVK Block 31 mear Gas Godwn	build-perm	General	40	22	0.55	East	811	20.28	36.86
63	Vishwas Nagar BVK Sanjay Amar Colony	build-perm	General	40	12	0.3	East	811	20.28	67.58
64	Nangli Khadar, Near Ramchirtr Manas temple Near Mayur vihar	porta	General	50	25	0.5	East	775	15.5	31
65	Anand Vihar -1 (Male)	porta	General	50	29	0.58	East	800	16	27.59
67	Lal Bahadur Shastri Hospital, Khichripur	tent	General	25	14	0.56	East	600	24	42.86
69	Delhi Police Apartment, Noida Link Road.	tent	General	25	15	0.6	East	600	24	40
71	Sarvodaya Co-Ed Senior Secondary School, I.P. Extn., Patparganj.	build-temp	NA	250	132	0.53	East	NA	NA	NA
72	R - Block Mangolpuri.	build-perm	General	190	59	0.31	Northwest	3988	20.99	67.59
74	Night Shelter Bldg. Extn at R Block Mangolpuri	build-perm	General	150	53	0.35	Northwest	2836	18.91	53.51
179	BVK D-4 Block Sultanpuri.	build-perm	General	30	16	0.53	Northwest	811	27.03	50.69
181	Rohini Avantika, Sector 1	build-perm	General	200	95	0.48	Northwest	5380	26.9	56.63
182	A- Block JJR Colony Sultanpuri	build-perm	Families	120	53	0.44	Northwest	2415	20.13	45.57
183	Community Hall at A, B & C Block Mangolpuri	build-perm	General	100	38	0.38	Northwest	1473	14.73	38.76
192	Community Hall at P-1 Block Sultanpuri	build-perm	General	25	30	1.2	Northwest	454	18.16	15.13
193	Sector-22, Rohini	build-perm	General	200	92	0.46	Northwest	2464	12.32	26.78
19	Community Hall at UT-Block, Mangolpuri.	build-temp	NA	30	25	0.83	Northwest	NA	NA	NA
80	Bawana relocation scheme block-E	build-perm	General	70	35	0.5	Northwest	2000	28.57	57.14
86	Rohini Sector-26, Rohini	build-perm	General	70	37	0.53	Northwest	2000	28.57	54.05
88	Kali Mandir, Sector - 3 Rohini for Men	porta	General	50	37	0.74	Northwest	796	15.92	21.51
90	Kali Mandir, Sec-3, Rohini	porta	Women	50	34	0.68	Northwest	796	15.92	23.41
94	Community Hall at J-Block, Mangolpuri.	build-temp	NA	30	23	0.77	Northwest	NA	NA	NA
95	Community Hall at B2-Block, Sultanpuri.	build-temp	NA	30	24	0.8	Northwest	NA	NA	NA
107	Community Hall at F-Block, Mangolpuri.	build-temp	NA	30	24	0.8	Northwest	NA	NA	NA
110	Kasturba Nagar Shahdara Near Cremation Ground	build-perm	General	110	21	0.19	Shahdara	1614	14.67	76.86
111	F-Block, New Seemapuri	build-perm	General	50	12	0.24	Shahdara	798	15.96	66.5
112	Nand Nagari	porta	General	120	45	0.38	Shahdara	1794	14.95	39.87
118	GTB chowk Near GTB Hospital	porta	General	50	25	0.5	Shahdara	775	15.5	31
122	Shastri Park (Red Light)	porta	General	50	11	0.22	Shahdara	775	15.5	70.45
127	Ram Lila Ground Nand Nagri	porta	General	50	20	0.4	Shahdara	775	15.5	38.75
128	Shastri Park (Theka) Near Wine Soap	porta	General	50	28	0.56	Shahdara	775	15.5	27.68
129	Near DLF corner road no - 70 new seemapuri	porta	General	50	26	0.52	Shahdara	775	15.5	29.81
130	Block-III Dakshinpuri, (F.F.) Near Thana Amedkar Road (Drug addicts)	build-perm	Drug addicts	110	11	0.1	South	2152	19.56	195.64

Code	Shelter Name	Type	Demographic	DUSIB Listed capacity	Avg nightly occupancy	Occupancy rate	District	Listed shelter area	Official shelter area per person (by listed capacity)	True shelter area per person (by avg occ)
131	Community Hall Kalkaji	build-perm	General	80	21	0.26	South	1878	23.48	89.43
132	Nehru Place, Opposite MTNL exchange	porta	General	50	20	0.4	South	807	16.14	40.35
134	Nehru Place 1, Metro Station	porta	General	50	9	0.18	South	807	16.14	89.67
138	Nehru Place 2, Metro Station	porta	General	50	18	0.36	South	807	16.14	44.83
141	Leprosy colony Siriniwaspuri (3 Nos Cabins)	porta	General	50	17	0.34	South	807	16.14	47.47
142	Opp. Chattarpur Mandir (4 Nos Cabins)	porta	General	50	39	0.78	South	1076	21.52	27.59
143	Community Hall at Parda Bagh (Ground Floor).	build-temp	NA	30	29	0.97	South	NA	NA	NA
145	Badarpur Border Near Toll Plaza	porta	General	50	20	0.4	South	796	15.92	39.8
150	Nizamuddin Basti near Hazrat Nizamuddin Dargah	build-perm	General	300	68	0.23	Southeast	4522	15.07	66.5
201	Sunlight Colony-I, Community Hall	build-perm	General	90	20	0.22	Southeast	2289	25.43	114.45
204	Kotla Mubrakpur, First Floor (Drug addicts)	build-perm	Drug addicts	80	29	0.36	Southeast	2406	30.08	82.97
205	Lodhi Road near Indian Social Institute	porta	Women	50	14	0.28	Southeast	775	15.5	55.36
206	Okhla Modi Mill behind TATA Indicom	porta	General	50	22	0.44	Southeast	807	16.14	36.68
213	Taimur Nagar, Okhla near Dhobi Ghat	porta	General	50	27	0.54	Southeast	801	16.02	29.67
214	Kalkaji Mandir	porta	Women	50	26	0.52	Southeast	807	16.14	31.04
218	Near Sai Baba Mandir Lodhi road	porta	General	50	20	0.4	Southeast	800	16	40
220	Ring Road, Bus Terminal Sarai Kale Khan, Site-2 (DSIIDC)	porta	Families	50	51	1.02	Southeast	801	16.02	15.71
224	Sarai Kale Khan Near Bus Terminal Pota Cabin No. 2 (Parking Side)	porta	Families	180	115	0.64	Southeast	2690	14.94	23.39
229	Jasola Opposite Church	porta	General	50	11	0.22	Southeast	915	18.3	83.18
230	Sarai Kale Khan in Parking, Double Storey at Ground Floor (Recovery Shelter)	porta	Recovery She	50	19	0.38	Southeast	1744	34.88	91.79
231	Sarai Kale Khan in Parking	porta	Families	150	56	0.37	Southeast	2518	16.79	44.96
232	Sarai Kale Khan in Parking, Double Storey at 1st Floor	porta	General	50	49	0.98	Southeast	1744	34.88	35.59
235	Nizamuddin near Flyover, Tikona Park	tent	General	50	45	0.9	Southeast	600	12	13.33
236	Kotla Mubarakpur, Ground Floor, De-addiction (Men)	build-perm	General	80	20	0.25	Southeast	2406	30.08	120.3
237	Kilokari Village near circle office, Ring Road	build-perm	Families	90	26	0.29	Southeast	2005	22.28	77.11
238	Sarai Kale Khan-2 Near petrol pump, outer ring road	porta	Families	50	44	0.88	Southeast	801	16.02	18.2
242	Ring Road, Bus Terminal Sarai Kale Khan Site-3 (DSIIDC)	porta	Families	50	49	0.98	Southeast	801	16.02	16.35
245	Sarai Kale Khan Near Bus Terminal Pota Cabin No. 1 (Jamuna Side)	porta	General	150	58	0.39	Southeast	2260	15.07	38.97
246	Sector-3, PH-I, Dwarka	build-perm	General	70	41	0.59	Southwest	2000	28.57	48.78
249	Sector-3, PH-II, Dwarka	build-perm	Women	70	8	0.11	Southwest	2000	28.57	250
250	Sector -1 ,Dwarka	build-perm	General	70	30	0.43	Southwest	2000	28.57	66.67
251	BVK Goyala Diary, Near Dwarka	build-perm	General	50	23	0.46	Southwest	1184	23.68	51.48
557	District Centre, Behind Hilton Hotel, Janak puri	porta	General	50	21	0.42	Southwest	915	18.3	43.57
581	Munirka near Masjid Sec.- 4, R. K. Puram (Ladies)	porta	Women	50	39	0.78	Southwest	801	16.02	20.54
615	Nilothi Extension near fish market, Near Dwarka	porta	General	50	36	0.72	Southwest	801	16.02	22.25
618	Nasirpur, Near Dwarka	porta	General	50	27	0.54	Southwest	801	16.02	29.67
623	Sector-12, Dwarka	porta	General	50	29	0.58	Southwest	801	16.02	27.62
624	Munirka near Masjid Sec.- 4, R. K. Puram (Men)	porta	Families	50	46	0.92	Southwest	775	15.5	16.85
628	Uttam Nagar East	porta	General	50	16	0.32	Southwest	801	16.02	50.06
631	Sector-10, Dwarka	porta	General	50	15	0.3	Southwest	801	16.02	53.4
632	Dhouli Piao, Vikaspuri	porta	General	50	21	0.42	Southwest	801	16.02	38.14
633	Munirka	porta	General	50	30	0.6	Southwest	915	18.3	30.5

(End)

Appendix 3

Identifying Space: Shelters that provide more than 50 square feet of space to residents

Code	Shelter Name	Type	Demographic	DUSIB Listed capacity	Avg nightly occupancy	Occupancy rate	District	Listed shelter area	Official shelter area per person (by listed capacity)	True shelter area per person (by avg occ)
224	Uttam Nagar East	porta	General	50	16	0.32	Southwest	801	16.02	50.06
16	Gali Tel Mill, Nabi Karim	build-perm	General	80	42	0.525	Central	2103	26.2875	50.07
72	BVK D-4 Block Sultanpuri.	build-perm	General	30	16	0.53	Northwest	811	27.03	50.69
1	Delhi Gate (GF)-Handicapped, (FF & SF)-Children Drug Rehabilitation Centre	build-perm	Drug addicts	150	63	0.42	Central	3223	21.49	51.16
74	BVK Goyala Diary, Near Dwarka	build-perm	General	50	23	0.46	Southwest	1184	23.68	51.48
96	Mansarover Park-1, Lal Bagh	porta	General	50	15	0.3	Northeast	775	15.5	51.67
227	Kudsia Ghat No.1, Yamuna Pushta	porta	General	50	16	0.32	Central	831	16.62	51.94
48	Site & Services Plots at HMP Khayala	build-perm	General	50	13	0.26	West	678	13.56	52.15
56	At Ist floor property no.1675/VIII, Himmat Garh.	build-perm	General	20	7	0.35	Central	370	18.5	52.86
13	Prop. NO. 10615, Jhandewalan Road	build-perm	General	90	43	0.48	Central	2282	25.36	53.07
229	Sector-10, Dwarka	porta	General	50	15	0.3	Southwest	801	16.02	53.4
67	Night Shelter Bldg. Extn at R Block Mangolpuri	build-perm	General	150	53	0.35	Northwest	2836	18.91	53.51
46	Rohini Sector-26, Rohini	build-perm	General	70	37	0.53	Northwest	2000	28.57	54.05
100	Yamuna Pushta near Nigam Bodh Ghat	porta	General	50	15	0.3	Central	816	16.32	54.4
86	Lodhi Road near Indian Social Institute	porta	Women	50	14	0.28	Southeast	775	15.5	55.36
135	Kudesia Ghat near NDPL, Yamuna Pushta	porta	General	50	15	0.3	Central	831	16.62	55.4
144	Madipur Sajjan Park	porta	General	50	14	0.28	West	781	15.62	55.79
179	Rohini Avantika, Sector 1	build-perm	General	200	95	0.48	Northwest	5380	26.9	56.63
45	Bawana relocation scheme block-E	build-perm	General	70	35	0.5	Northwest	2000	28.57	57.14
175	Sabzi Mandi Tilak Nagar TNS-2	porta	General	70	14	0.2	West	801	11.44	57.21
601	AIIMS near Footover Bridge, Gate No. 3	tent	General	25	10	0.4	New Delhi	600	6	60
222	Sabzi Mandi Tilak Nagar TNS-3	porta	General	50	13	0.26	West	801	16.02	61.61

Code	Shelter Name	Type	Demographic	DUSIB Listed capacity	Avg nightly occupancy	Occupancy rate	District	Listed shelter area	Official shelter area per person (by listed capacity)	True shelter area per person (by avg occ)
4	Sarai Pipal Thala, 1st Floor, Adarsh Nagar	build-perm	General	200	83	0.42	North	5412	27.06	65.2
20	Kabir Basti Malka Ganj.	build-perm	General	110	26	0.24	North	1718	15.62	66.08
8	Raja Garden-08	build-perm	General	130	58	0.45	West	3857	29.67	66.5
10	Nizamuddin Basti near Hazrat Nizamuddin Dargah	build-perm	General	300	68	0.23	Southeast	4522	15.07	66.5
64	F-Block, New Seemapuri	build-perm	General	50	12	0.24	Shahdara	798	15.96	66.5
43	Sector -1 ,Dwarka	build-perm	General	70	30	0.43	Southwest	2000	28.57	66.67
102	Near Liberty Cinema, Dev Nagar, Karol Bagh	porta	General	50	12	0.24	Central	807	16.14	67.25
71	Vishwas Nagar BVK Sanjay Amar Colony	build-perm	General	40	12	0.3	East	811	20.28	67.58
9	R - Block Mangolpuri.	build-perm	General	190	59	0.31	Northwest	3988	20.99	67.59
244	Geeta Ghat-2 Yamuna Bank Near Monestory Ring Road	porta	General	210	48	0.23	Central	3300	15.71	68.75
132	Shastri Park (Red Light)	porta	General	50	11	0.22	Shahdara	775	15.5	70.45
81	Majnu ka Tilla	porta	General	50	11	0.22	North	800	16	72.73
223	Near Britainia Chowk	porta	General	50	11	0.22	North	800	16	72.73
242	Anand Vihar -2 (Female)	porta	Women	50	11	0.22	East	800	16	72.73
28	Commercial Building, Motia Khan	build-perm	Families	540	163	0.3	Central	11888	22.01	72.93
620	AIIMS near Gate No.3	tent	General	34	8	0.24	New Delhi	600	17.65	75
82	Yamuna Pushta near ISBT	porta	General	50	11	0.22	Central	831	16.62	75.55
149	Yamuna Pushta, Code-149	porta	General	50	11	0.22	Central	831	16.62	75.55
50	Kasturba Nagar Shahdara Near Cremation Ground	build-perm	General	110	21	0.19	Shahdara	1614	14.67	76.86
36	Kilokari Village near circle office, Ring Road	build-perm	Families	90	26	0.29	Southeast	2005	22.28	77.12
65	Kotla Mubrakpur, First Floor (Drug addicts)	build-perm	Drug addicts	80	29	0.36	Southeast	2406	30.075	82.97
246	Jasola Opposite Church	porta	General	50	11	0.22	Southeast	915	18.3	83.18
6	S.P. Mukharjee Market	build-perm	General	70	15	0.21	Central	1313	18.76	87.53
63	Community Hall Kalkaji	build-perm	General	80	21	0.26	South	1878	23.475	89.43
128	Nehru Place 1, Metro Station	porta	General	50	9	0.18	South	807	16.14	89.67
249	Sarai Kale Khan in Parking, Double Storey at Ground Floor (Recovery Shelter)	porta	Recovery She	50	19	0.38	Southeast	1744	34.88	91.79
3	Kabool Nagar Shahdra	build-perm	General	60	11	0.18	Northeast	1033	17.22	93.91
18	Community Hall, Regharpura, Karol Bagh (Ladies Shelter)	build-perm	Women	110	22	0.2	Central	2197	19.97	99.86
68	Azad Pur BVK	build-perm	General	70	20	0.29	North	2000	28.57	100
247	Yamuna Pushta near Nigam Bodh Ghat	porta	General	225	33	0.15	Central	3395	15.09	102.88
125	Mansrover Park-2, Lal Bagh	porta	Women	50	7	0.14	Northeast	775	15.5	110.71
77	Gokalpuri	build-perm	General	50	7	0.14	Northeast	790	15.8	112.86
62	Sunlight Colony-I, Community Hall	build-perm	General	90	20	0.22	Southeast	2289	25.43	114.45
25	At Property No.1546-51/VIII.(Gali Borian, Ajmere Gate) - max	build-perm	General	120	15	0.125	Central	1750	14.58	116.67
39	Padam Nagar	build-perm	General	20	32	1.6	Central	3802	190.1	118.8125
24	Kotla Mubarakpur, Ground Floor, De-addiction (Men)	build-perm	General	80	20	0.25	Southeast	2406	30.075	120.3
23	759/1 Chabi Ganj Community center	build-perm	General	280	34	0.12142857	Central	4279	15.2821429	125.852941
180	BVK Raghubir Nagar (F Block Ext. Khayala near G.G.S. Hospital)	build-perm	General	70	11	0.15714286	West	1644	23.4857143	149.454545
26	Community Center Hanuman Mandir Yamuna Bazar (First Floor)	build-perm	Women	210	21	0.1	Central	3189	15.1857142	151.857143
70	Seelampur BVK, Kabari Market.	build-perm	General	80	12	0.15	Northeast	1961	24.5125	163.416667
178	Community center Parda Bagh (IInd Floor)	build-perm	Drug addicts	160	16	0.1	Central	2690	16.8125	168.125
55	Block-III Dakshinpuri, (F.F.) Near Thana Amedkar Road (Drug addicts)	build-perm	Drug addicts	110	11	0.1	South	2152	19.5636363	195.636364
34	L-Block, Pratap Nagar, Near Shastri Nagar	build-perm	General	220	18	0.08181818	Central	3791	17.2318181	210.611111
37	Tank Road, Bapa Nagar, Karol Bagh.	build-perm	General	50	15	0.3	Central	3184	63.68	212.266667
22	Phool Mandi Building, Mori Gate	build-perm	General	250	28	0.112	Central	6191	24.764	221.107143
42	Sector-3, PH-II, Dwarka	build-perm	Women	70	8	0.11428571	Southwest	2000	28.5714286	250
76	BVK (Ist Floor) Water Tank No.2 Udyog Nagar, Peeragarhi	build-perm	Children	90	8	0.08888889	West	2152	23.9111111	269
35	Kharian Mohalla, Roshanara Road.	build-perm	Women	210	12	0.05714286	Central	3695	17.5952381	307.916667
78	Sarai Pipal Thala, 2nd Floor (Shifted from Parcel House, Adarsh Nagar)	build-perm	Children	200	14	0.07	North	5412	27.06	386.571429
5	Shahzada Bagh	build-perm	General	220	21	0.09545455	Central	8626	39.2090909	410.761905

(End)

End Notes

1 https://www.hindustantimes.com/cities/21-occupants-of-aiims-shelter-home-test-positive-several-already-suffer-from-serious-diseases/story-WBnJcOsvXVBOoiywNOf81K.html

2 https://www.hindustantimes.com/cities/21-occupants-of-aiims-shelter-home-test-positive-several-already-suffer-from-serious-diseases/story-WBnJcOsvXVBOoiywNOf81K.html

3 I spoke to these officials at various times from late June to mid-July 2020.

4 [Delhi High] Court on its own motion v. GNCTD, W.P. (C) 29/2010, order dated 04.01.12.

5 figures attributed to India Ministry of Health and the Delhi government, cited by the BBC. See 17 July, 2020. India coronavirus: Delhi breathes again as Covid-19 cases dip. BBC News < https://www.bbc.com/news/world-asia-india-53428145

6 Centers for Disease Control and Prevention (CDC), Interim Guidance for Homeless Service Providers to Plan and Respond to Coronavirus Disease 2019 (COVID-19) <https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-shelters/plan-prepare-respond.html>

7 In response to my query for data on the square footage per person in homeless shelters recommended to reduce public health risks associated with overcrowding, a CDC homelessness expert replied, 'We don't have an overall square footage recommendation for within shelters. If you apply our shelter sleeping distance recommendations that will give you at least 60 square feet per person just in the sleeping area.' (email response: July 16, 2020)

8 Centers for Disease Control and Prevention (CDC), Interim Guidance on Unsheltered Homelessness and Coronavirus Disease 2019 (COVID-19) for

Homeless Providers and Local Officials <https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-shelters/unsheltered-homelessness.html>

9 Delhi Urban Shelter Improvement Board Occupancy Index <http://delhishelterboard.in/occupancy-report/index-dt.php>

10 Delhi Urban Shelter Improvement Board Nightly Occupancy Report https://www.delhishelterboard.in/occupancy-report/ns-detail.php?nsid=1

11 Census 2011 < https://www.census2011.co.in/district.php >

12 Parulkar, A. & Naik, M. (2020). A Crisis of Hunger: a ground report on the repercussions of COVID-19 related lockdown on Delhi's vulnerable populations. New Delhi, India: Centre for Policy Research (CPR)

13 Census 2011 < https://www.census2011.co.in/district.php >

14 Indo-Global Social Service Society (IGSSS). (2019) Understanding Homelessness in Delhi – Rethinking Perspectives, Policy & Practice. New Delhi: IGSSS <https://igsss.org/wp-content/uploads/2019/02/Understanding-Homelessness-in-Delhi-Rethinking-Prerspectives-Policy-and-Practice.pdf>

15 12 notified buildings, 27 portacabins and 4 'lockdown' tents

16 This calculation is based on all except one vulnerable group shelters for which data on square footage is not available, therefore accounting for 3905 of 3955 residents.

17 Government of India. (2013). National Urban Livelihoods Mission: Scheme of Shelters for Urban Homeless, Ministry of Housing & Urban Poverty Alleviation < https://smartnet.niua.org/sites/default/files/resources/NULM Scheme of Shelters for Urban Homeless Operational Guidelines.pdf >

18 For instance, Nelson Mandela's Robben Island prison cell was reported to be about 50 square feet < https://mw19.mwconf.org/glami/mandela-struggle-for-freedom-immersive-cell-projection/ > See also Mandela, Nelson.(1994). Long Walk to Freedom: The Autobiography of Nelson Mandela. Boston: Little Brown

19 total square feet are not available (NA) for the 11 temporary buildings and 4 tents

20 7438 (total number of average daily shelter users)/ 18,478 (total official – that is, DUSIB-listed –capacity of the shelter system)

21 Ibid at 13: 'For every one lakh urban population, provisions should be made for permanent community shelters for a minimum of one hundred persons' (GoI 2013:2)

22 section 4.3 NIGHT SHELTER, para 2, Delhi Development Authority. (2007; modified 2017). Delhi Master Plan 2021

'We also note that in paragraph 4.3 of the Master Plan the provision for night shelters has been specifically mentioned. In fact the requirement of night shelter has been indicated to be one shelter per one lac population,' [Delhi High] Court on its own motion v. GNCTD, W.P. (C) 29/10, order dated 13.01.20

'...shelters must be in adequate numbers and in the ratio of at least one per lakh of population for every urban centres (sic) according to the Delhi Master Plan,' People's Union for Civil Liberties v. Union of India & Orgs, W.P. (C) No. 196 of 2001 dated 05/05/10

23 'The strength per shelter should be a minimum of 100 occupants, because the services will not be viable and optimal with smaller populations,' Letter from Commissioners of the Supreme Court to Supreme Court, dated 12 March 2010, cited in Commissioners of the Supreme Court in the Case of Writ Petition (Civil) 196 of 2001. (2014). Shelters for the Urban Homeless: A Handbook for Policymakers and Administrators. Books for Change: New Delhi

Delhi High Court judges readily included the 100 person residential capacity and 50 square feet personal space guidelines in their Orders after both had found their way into the NULM scheme. Interesting given that Delhi did not and still does not avail NULM funds for the city's shelters. 'On a first reading of the scheme we find that the shelters which are to be provided are required to be permanent all-weather shelters for the urban homeless and that for every one lakh urban population, provision is to be made for permanent community shelters for a minimum of 100 persons. ....we had been informed that DUSIB was following the space requirement of 15 sq. feet per person based on the requirement of railway berths. We had expressed our view that this was inadequate space for an individual for spending the night in a shelter and that DUSIB has to come out with a better and humane norm. The Scheme of Shelters for Urban Homeless has specified a much better norm of 50 sq. feet per person which is to be taken as a minimum space to be maintained,' Delhi High] Court on its own motion v. GNCTD, W.P. (C) 29/10, order dated 02.04.2014

24 Section 7.1 (DESIGN OF SHELTERS) in NULM-SUH does not discuss how or why 50 square feet per person is recommended. Ibid at note 13

25 Indicated by the 2011 Census as an increase in the district-wise population from 2001 to 2011.

26 The number of Delhi's administrative districts has increased since the 2011 Census from 9 to 11. Shahdara and Southeast Delhi have been carved out of East and South Delhi, respectively. I have taken the 2011 Census counts of East and South Delhi to include Shahdara and Southeast Delhi. The true area for South Delhi's shelters currently surpasses 50 square feet/person, the average across shelters in South+Southeast Delhi have is below that cut-off (45.05) due to the low share of South district's nightly shelter users (n=184) to other districts and overall. .

27 Allshelter>50s refers to the group of shelters in Delhi that provide more than 50 square feet of space to the average nightly number of residents who use these spaces.