

The Corona Crisis

Crowding and Contagion in the Haredi Sector



המכון
החרדי
למחקר
מדיניות

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Based on the article ***Covid-19, Population Density and Haredi Cities***
Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir

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Background

Background

The Spread of Infectious Diseases

There are several lifestyle factors that promote the spread of infectious diseases*:

- The global factor: widespread travel around the world.
- Local factors: urbanization, sanitation problems, overcrowding and non-ventilated buildings.

Contagion in the cities:

- Cities are prime candidates for the spread of infectious diseases.
- The higher the urban density, the greater and faster the spread of infectious diseases may be.

In Israel

- The spread of Covid-19 in Israel has not been as rapid as in other Western countries.
- In some localities and among certain population groups the rate of infection is significantly greater and faster in comparison with other localities and population groups.

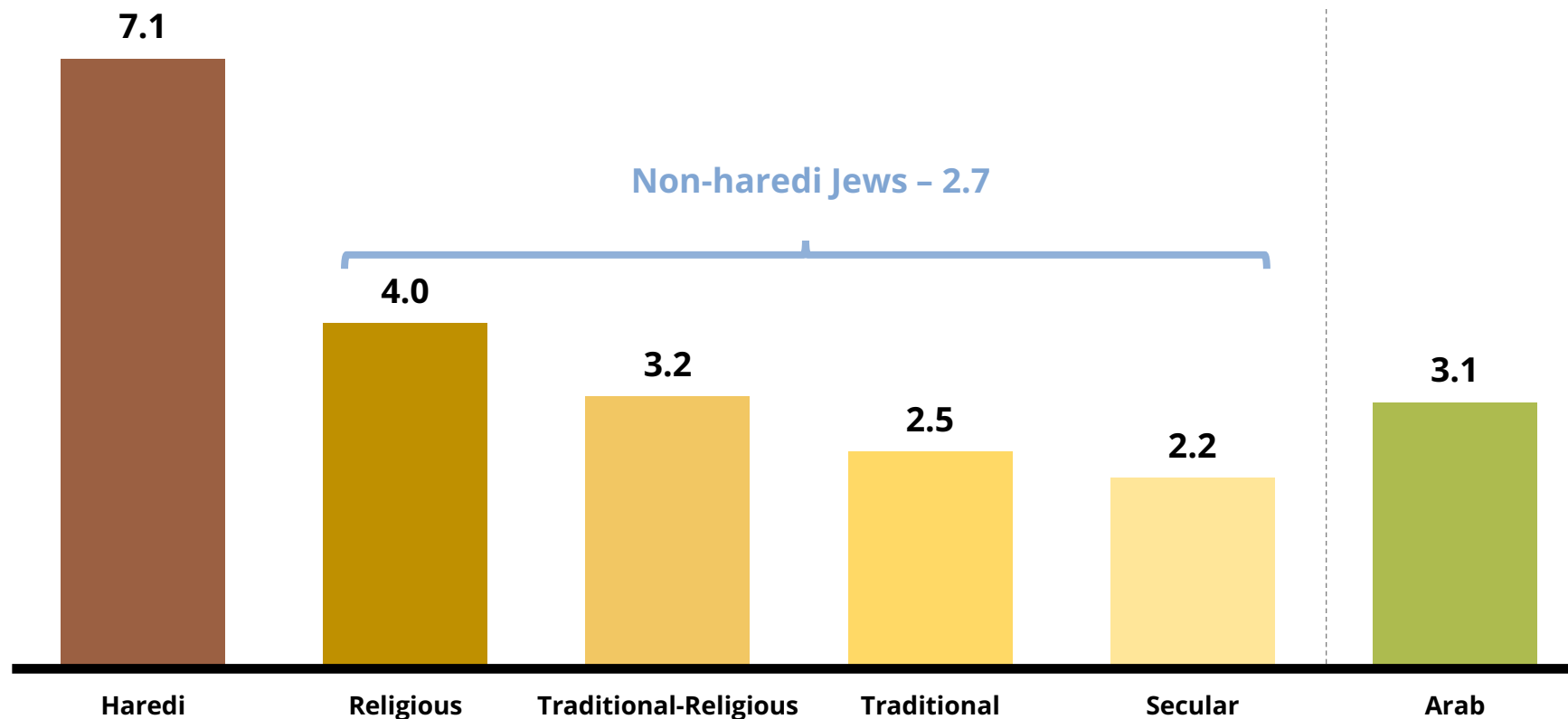
* Source: Shahr Shiloach, 2016. ["Mahalot Veba'ir Hagdola" \[Disease and the Big City\]](#), Zavit – the Israeli research portal for environmental sciences

Crowding

Fertility Rate

The fertility rate among the Jewish population increases with the level of religiosity

Fertility rate among Jewish women, 2015-2017

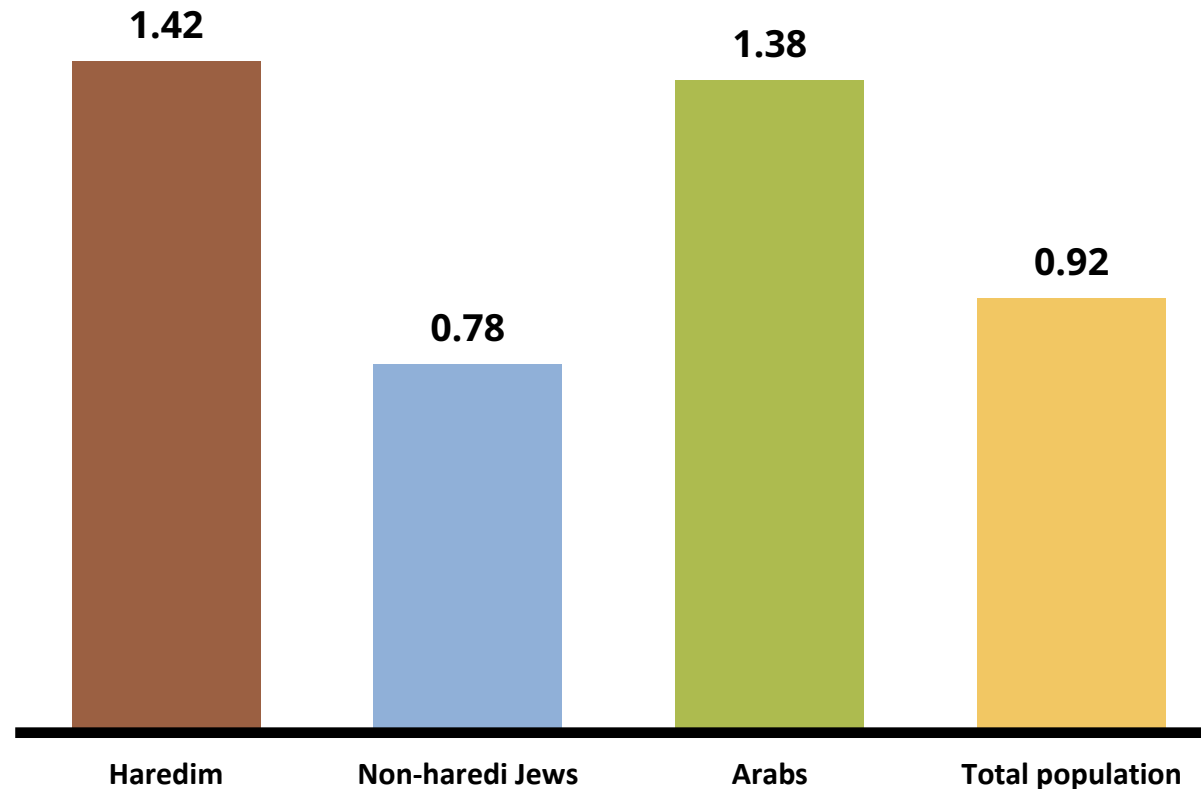


Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, "[Covid-19, Crowding and Haredi Cities](#)" *The Haredi Institute for Public Affairs*, April 2020; CBS data

Household Crowding

Household crowding among haredim in Israel is similar to that among Arabs, with a considerable gap between that and household crowding among non-haredi Jews

Household Crowding by population group

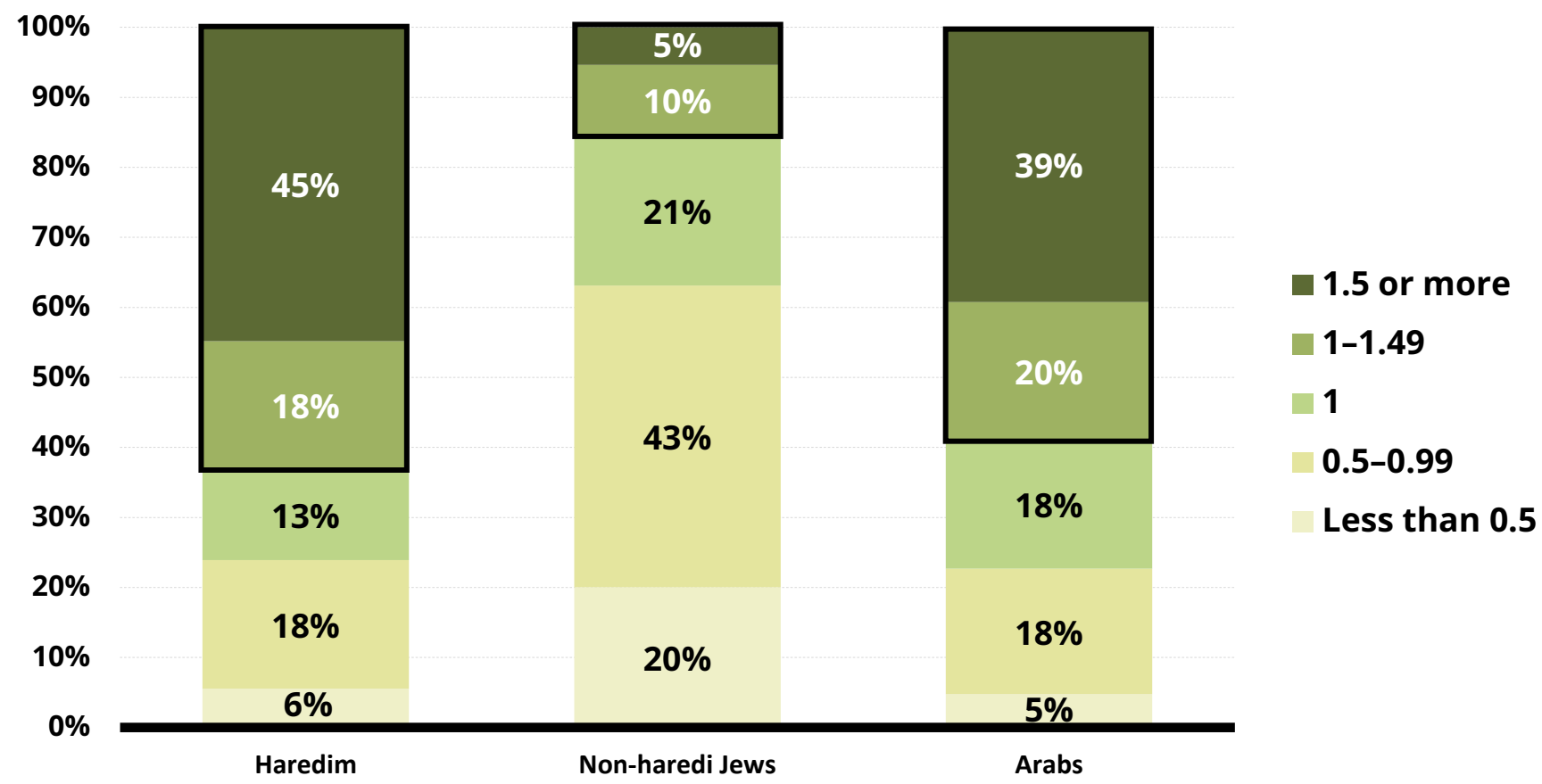


Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, ["Covid-19, Crowding and Haredi Cities"](#) The Haredi Institute for Public Affairs, April 2020

Household Crowding

In 63% of haredi households the number of people exceeds the number of rooms, similar to Arab households (59%), and with a considerable gap between that and non-haredi Jewish households (15%)

Household Crowding (persons per room), segmented by population group



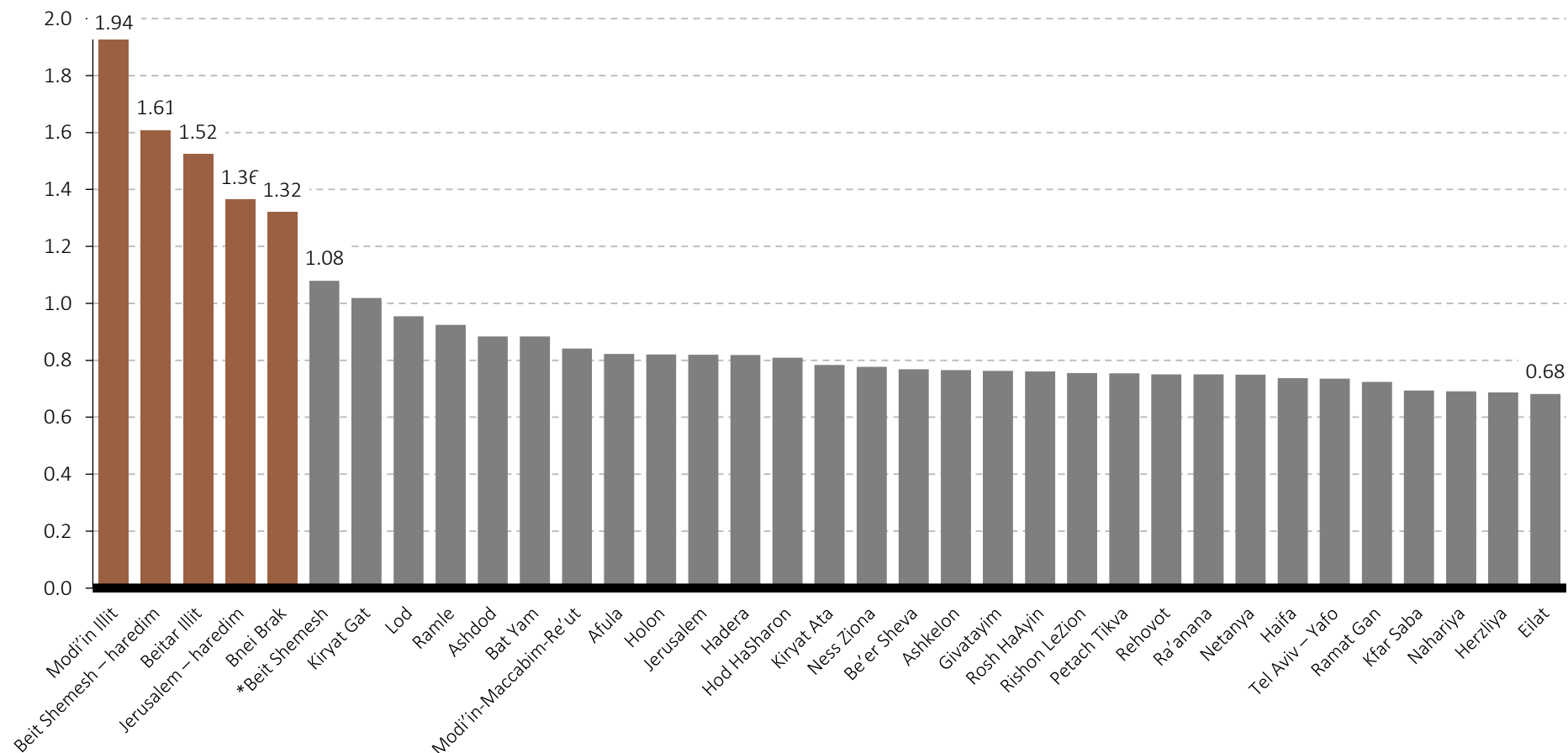
Source: Nitsa (Kaliner) Kasir and Assaf Tsachor-Shai, Analysis of the Central Bureau of Statistics' Labor Force Survey, 2017.



Household Crowding

Household overcrowding is prominent in young haredi cities such as Modi'in Illit, Beitar Illit and the haredi neighborhoods of Beit Shemesh

Household Crowding, cities with over 50,000 residents



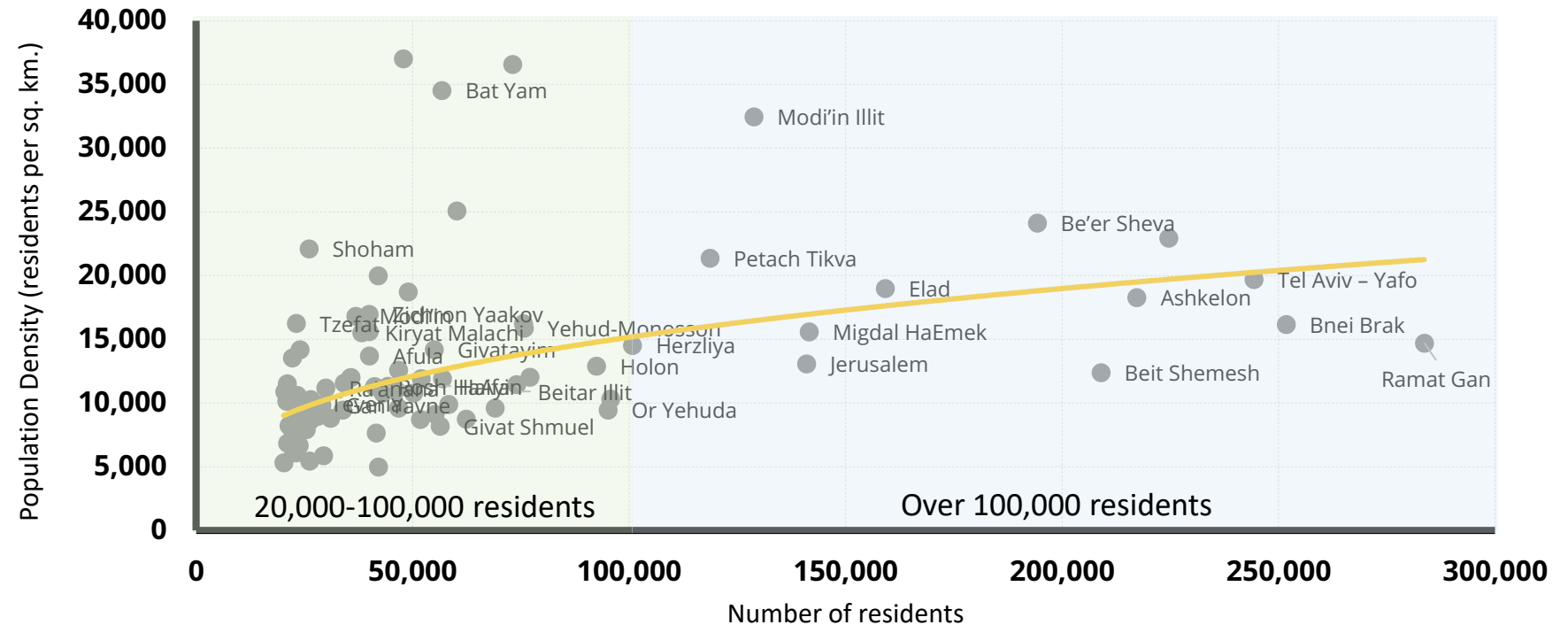
Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, [“Covid-19, Crowding and Haredi Cities”](#) The Haredi Institute for Public Affairs, April 2020

* Non-haredi Jews only

Population Density

As the number of residents grows, the average population density increases

Population density by number of residents



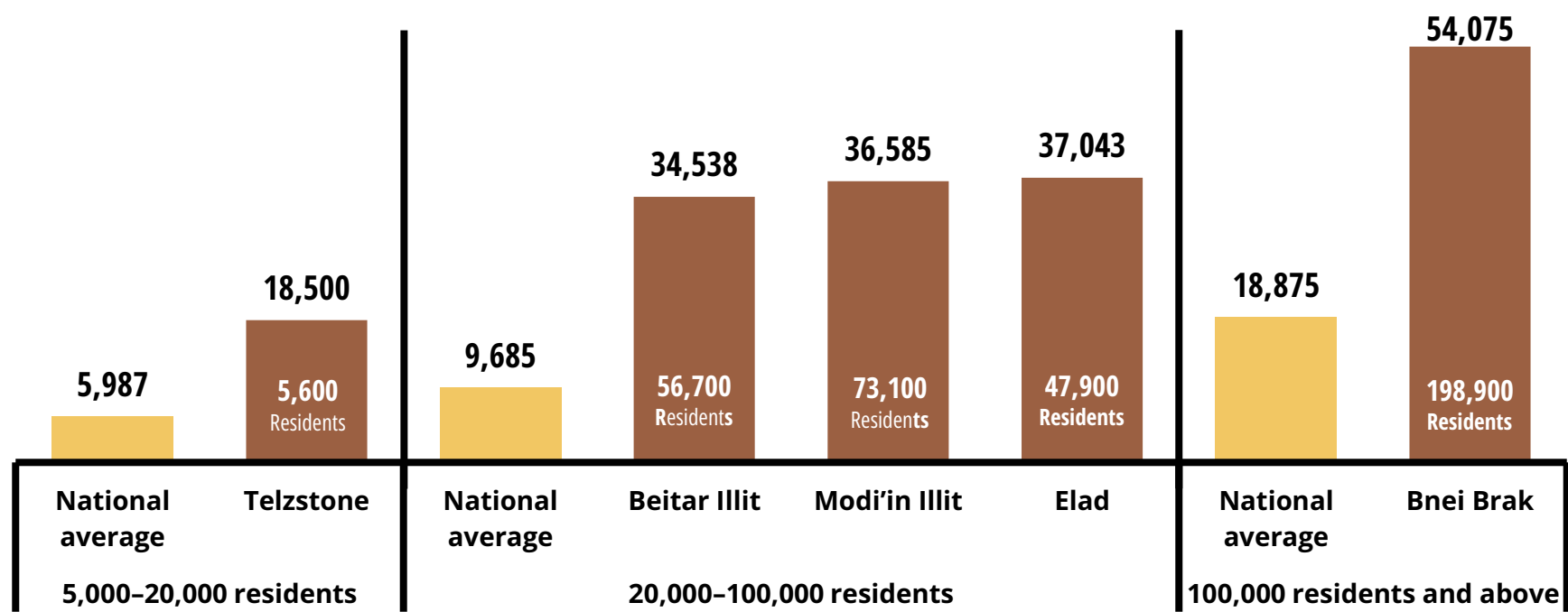
As the number of residents grows, the average population density increases.
Therefore, different localities should be assessed by segmentation according to the number of residents.

Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, "[Covid-19, Crowding and Haredi Cities](#)," *The Haredi Institute for Public Affairs*, April 2020. With no outliers on the scatter plot: Tel Aviv, Jerusalem and Bnei Brak.

Population Density

Population density in haredi localities is 3 to 4 times higher than the national average in non-haredi localities, while household crowding is 1.8 times higher

Population Density (residents per sq. km.)



Population density in the haredi sector is affected in part by household crowding, but is also affected by residential density and the amount of public spaces.

Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, [“Covid-19, Crowding and Haredi Cities.”](#) The Haredi Institute for Public Affairs, April 2020

Crowding

Crowding & Social Patterns

The haredi sector's use of community institutions and public spaces in residential areas is frequent and in high volume.

- Communal life centered on Torah study fosters much interaction in schools, shuls, Kollels and yeshivas.
- Haredi society is community-based, isolated and closed. Thus, community centers serve its religious and halachic needs, as well as its social and cultural needs.
- Because of household overcrowding, greater use is made of public spaces such as courtyards, playgrounds, sidewalks on main streets, and so on.

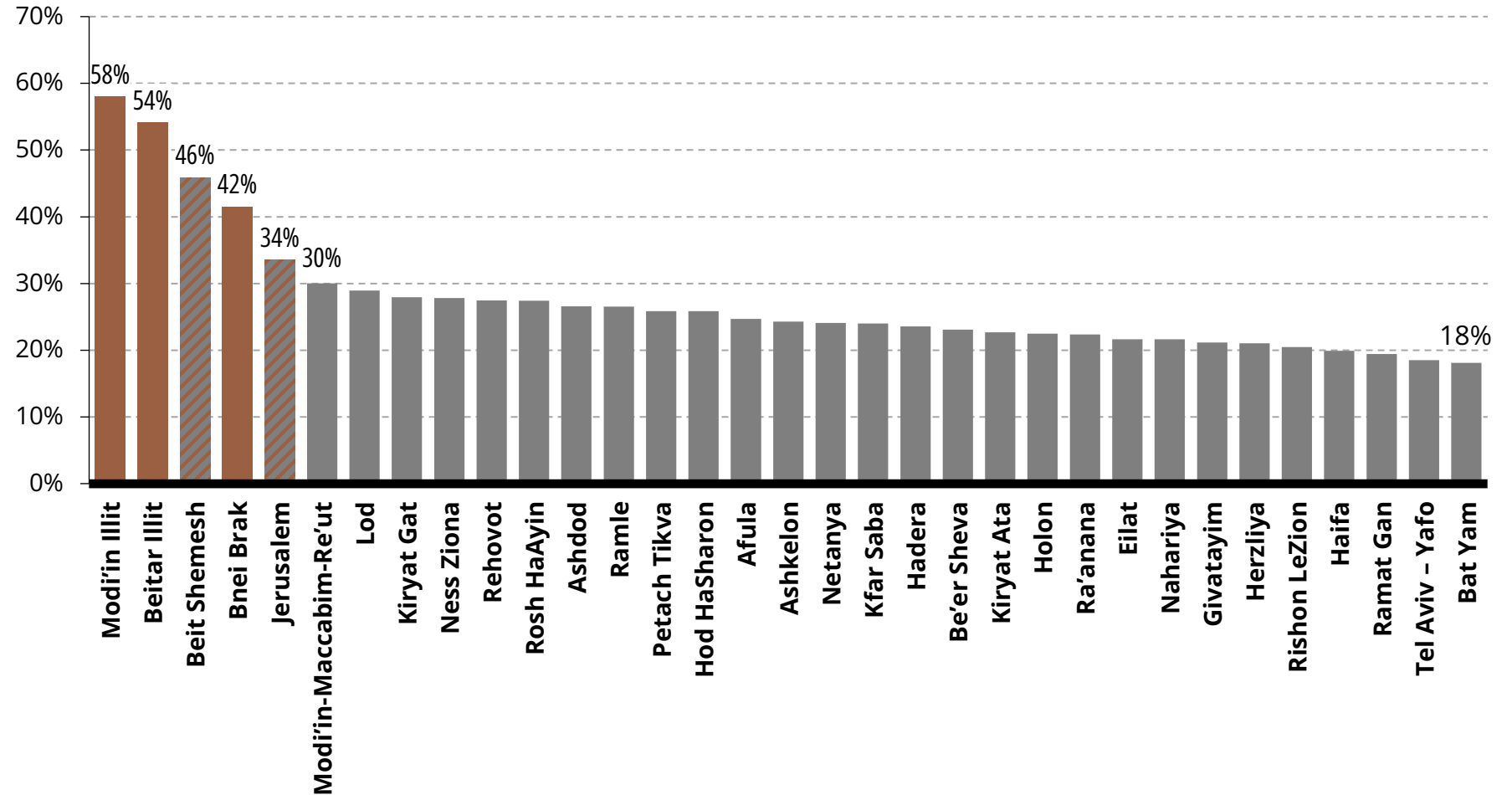
The overcrowding and high level of social interaction (which also impacts the decision to live in high-density areas) increase the risk of infection.

Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, "[Covid-19, Crowding and Haredi Cities](#)" *The Haredi Institute for Public Affairs*, April 2020

Crowding

Having a high percentage of children in the population increases contact and social interaction – at school, during play, and among parents

The percentage of children under age 14 in cities with over 50,000 residents



Source: Nitsa (Kaliner) Kasir and Assaf Tsachor-Shai, Analysis of the Central Bureau of Statistics' File of Local Authorities – 2018.

The Spread of Covid-19 in Israel

The Spread of Covid-19

The spread of Covid-19 in haredi localities was extensive

- The spread of Covid-19 in some of the haredi localities as well as the haredi neighborhoods in Jerusalem* is greater and faster than in most other localities and neighborhoods in Israel.
- At the beginning of April, within one week, the number of infected people in Modi'in Illit multiplied by 3.9, in Bnei Brak by 2.9, and in Beitar Illit by 2.7, whereas the number of infected people in non-haredi localities multiplied by 1.8.

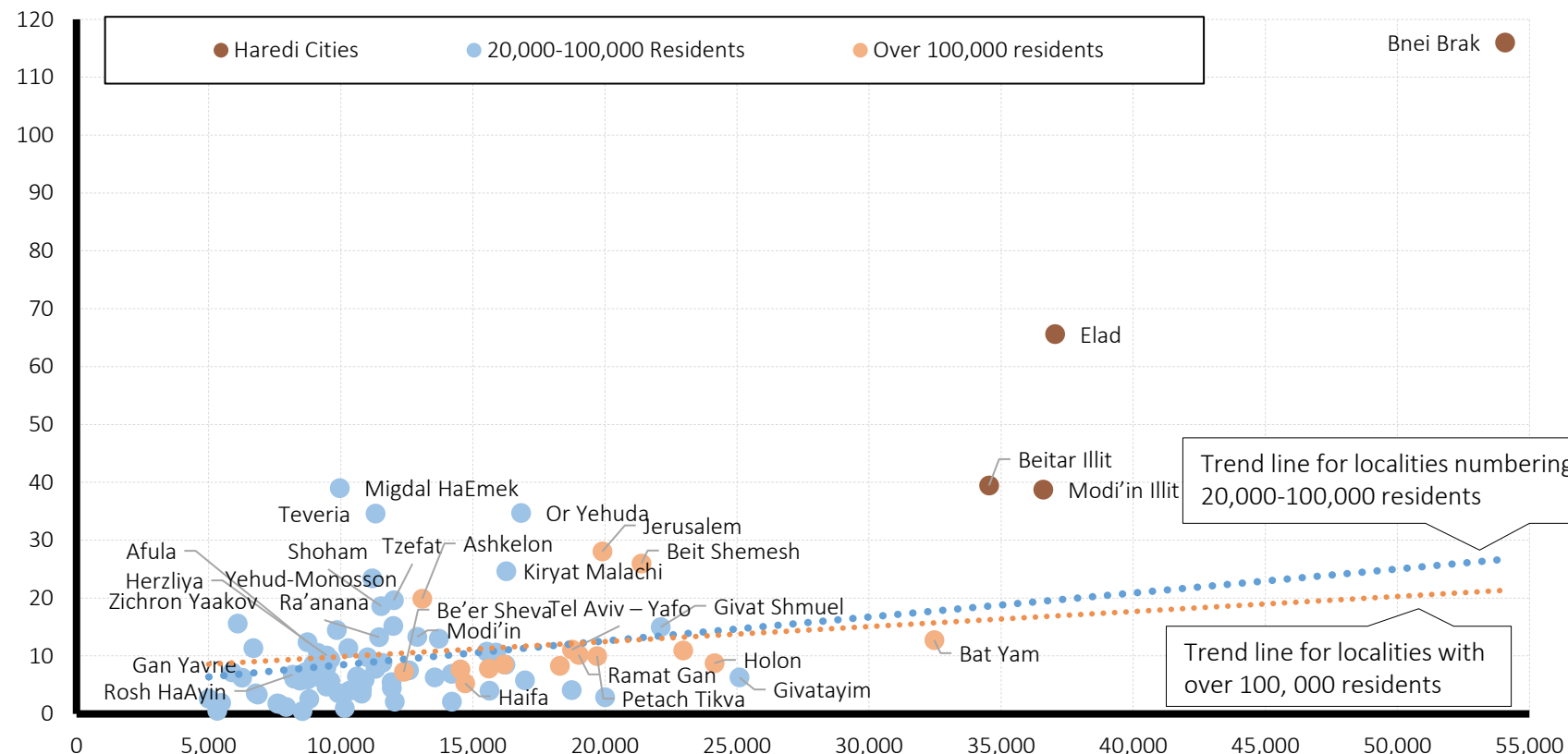
Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, ["Covid-19, Crowding and Haredi Cities,"](#) *The Haredi Institute for Public Affairs*, April 2020

Data: Coronavirus National Information and Knowledge Center, April 5 2020, [daily report](#). * Coronavirus National Information and Knowledge Center, April 6 2020, document no. 20, ["Most of the Covid-19 hotspots in Jerusalem are in several crowded neighborhoods in the city"](#) (Heb.)

The Spread of Covid-19

- The greater the household crowding, the higher the rate of morbidity
- The large deviation of haredi localities from the trend line reflects other factors that contributed to the faster spread of the disease, among these the belated compliance with Covid-19 protocols

Rate of people infected with Covid-19 by locality per population density, as of April 19



Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, "[Covid-19, Crowding and Haredi Cities](#)," *The Haredi Institute for Public Affairs*, April 2020; Ministry of Health data, April 19 2020; Population density data, 2013.

* The trend line does not take into account haredi localities

Running an OLS regression showed that the two variables of overcrowding as well as cities being haredi have a positive and significant impact on the number of infected residents.

Looking Ahead

Contagion in the Haredi Community

Weighing the Crowding Factor vs. Other Factors

- Haredi society
 - is a closed community, with its own internal leadership
 - exhibits limited confidence in state authorities
 - has less exposure to mainstream media

Because of this, it took a long time for the haredi sector to understand the severity of the situation and to adhere to the guidelines and prevention protocols as compared with the general population.

- It's difficult to know to what extent the high rates of morbidity in haredi localities are the result of belated awareness of the severity of the situation, and to what extent they are the result of extreme overcrowding.
- However, undoubtedly the high density in haredi localities accelerates the process, and is critical to understanding the high rate of infection as well as formulating policy that will help stem the spread of infection.

Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, "[Covid-19, Crowding and Haredi Cities](#)," *The Haredi Institute for Public Affairs*, April 2020

In conclusion

Crowded Localities

The importance of tailored solutions for high-density localities

- In areas of high population density, there is much contact between people which increases contagion, and particularly when the percentage of children in the population is high.
 - This is especially true among haredim, where the culture encourages much social interaction, which in turn increases the risk of contagion.
- In addition, household crowding limits the ability to quarantine those infected.
- These data highlight the importance of providing a rapid response to high-density areas (haredi, Arab and other localities) and providing tailored solutions in the future as well, in order to curb the extent of contagion.
- **Policy that is based on empirical data and an understanding of the unique characteristics of the various population groups can help in providing the most appropriate response.**

Source: Assaf Tsachor-Shai and Nitsa (Kaliner) Kasir, "[Covid-19, Crowding and Haredi Cities](#)," *The Haredi Institute for Public Affairs*, April 2020

Thank you for your time