

# Programmatic Mapping and Size Estimation of Key Populations in two major cities in Turkey: Istanbul and Ankara

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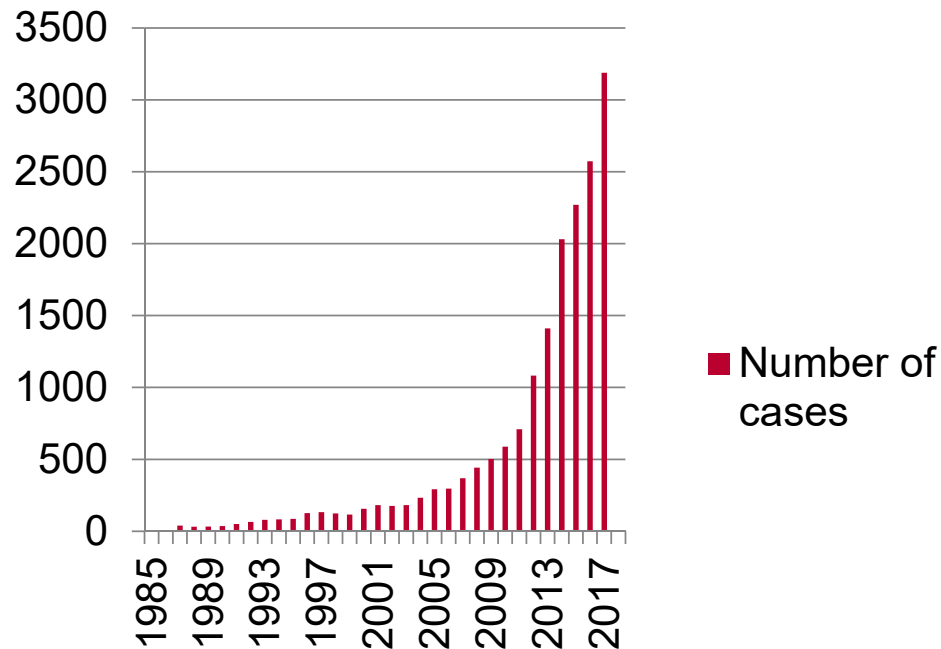
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# Background

Total number: 17 884 Oct 1985 – Dec 2017<sup>1</sup>



- Turkey is considered a low HIV prevalence country but with a rapidly growing HIV epidemic.
- Three countries – Poland (29%), Turkey (22%), and Romania (20%) – accounted for more than 70% of the cases reported in the Central European region between 2005 and 2014<sup>2</sup>
- Key populations (KPs) have not been defined, characterized or screened and no HIV prevention services and programs are available.

<sup>1</sup>THSK Bulaşıcı Hastalıklar Daire Başkanlığı verileri 2016 : <https://www.saglik.gov.tr/> (Accessed Jan 2019)

<sup>2</sup>Gökengin D, Oprea C, Uysal S and Begovac J. The growing HIV epidemic in Central Europe: a neglected issue? *Journal of Virus Eradication* 2016; 2: 156–161.

# Objectives

- To assess the population size, distribution and social organization of three high-risk key populations
    - Female sex workers (FSWs),
    - Transgender sex workers (TGSWs) and
    - Men having sex with men (MSM)
- in two major cities in Turkey-Istanbul and Ankara.

# Methods

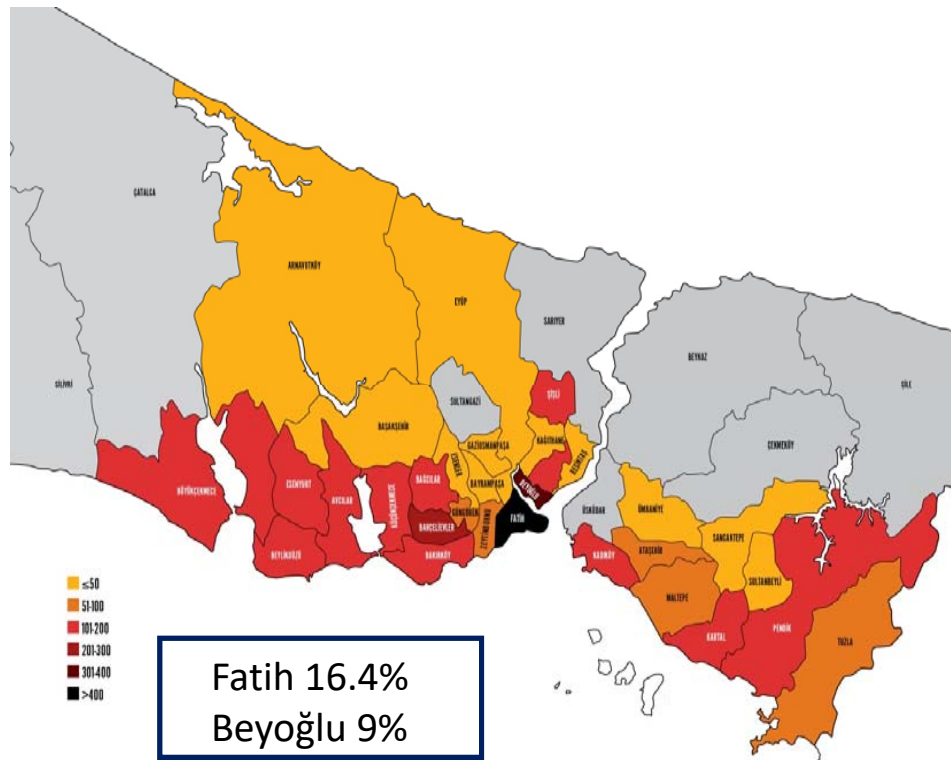
- Programmatic mapping was used for size estimation of KPs\*.
- Level 1
  - Systematic information-gathering from key informants (KIs) regarding locations (“hotspots”) where KP members congregate and/or meet casual or paying sexual partners.
  - Istanbul and Ankara were segmented into smaller zones.
  - Interviews were conducted with KIs.
  - Information collected included estimated number, typologies and basic characteristics of KPs at each spot.
- Level 2
  - Site validation and in-depth profiling of hotspots identified at Level 1.
  - Information collected included estimated number, operation times and social networking of KPs.

\* Mapping and population size estimation for KPs is focused on those KPs who congregate in defined spatial locations where they meet new partners. The methodology is not meant to try to estimate the overall size of the KP, but only those who meet in these definable locations where programs can be focused for outreach.

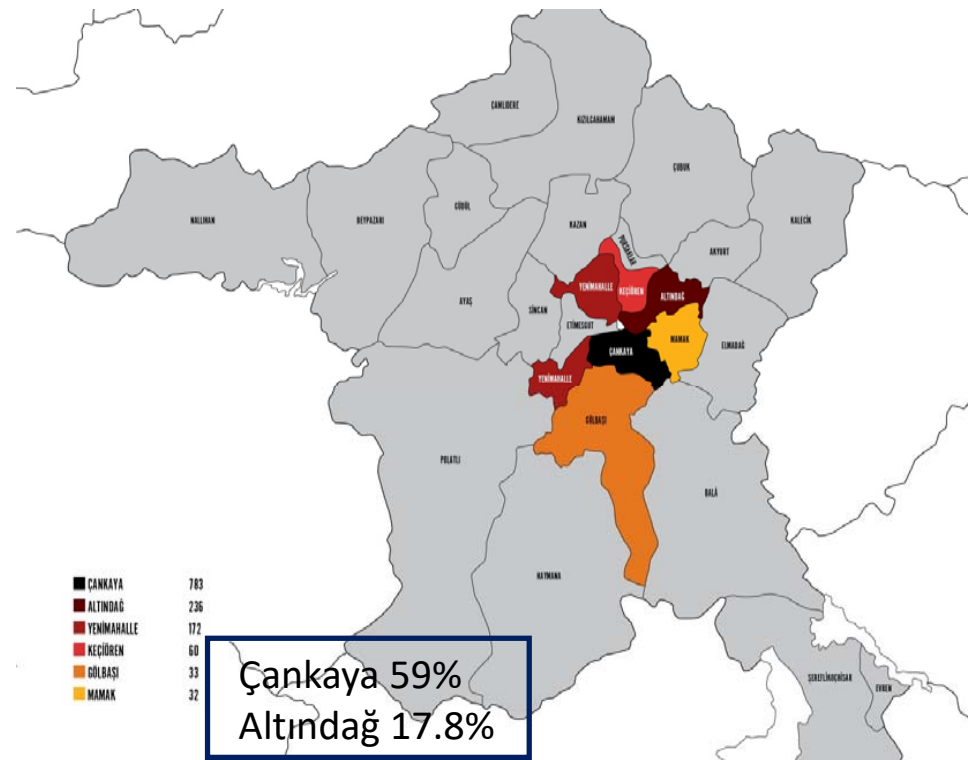
# Results

# Female sex workers-number of spots

Istanbul (3429 spots in 30/35 districts)

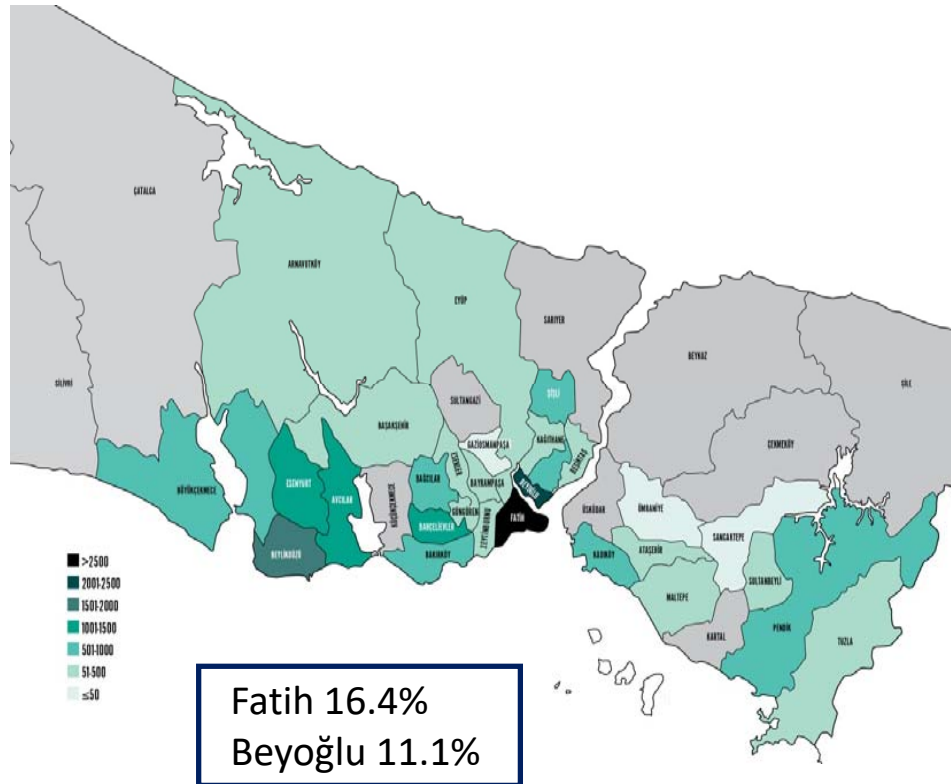


Ankara (1325 spots in 7/10 districts)

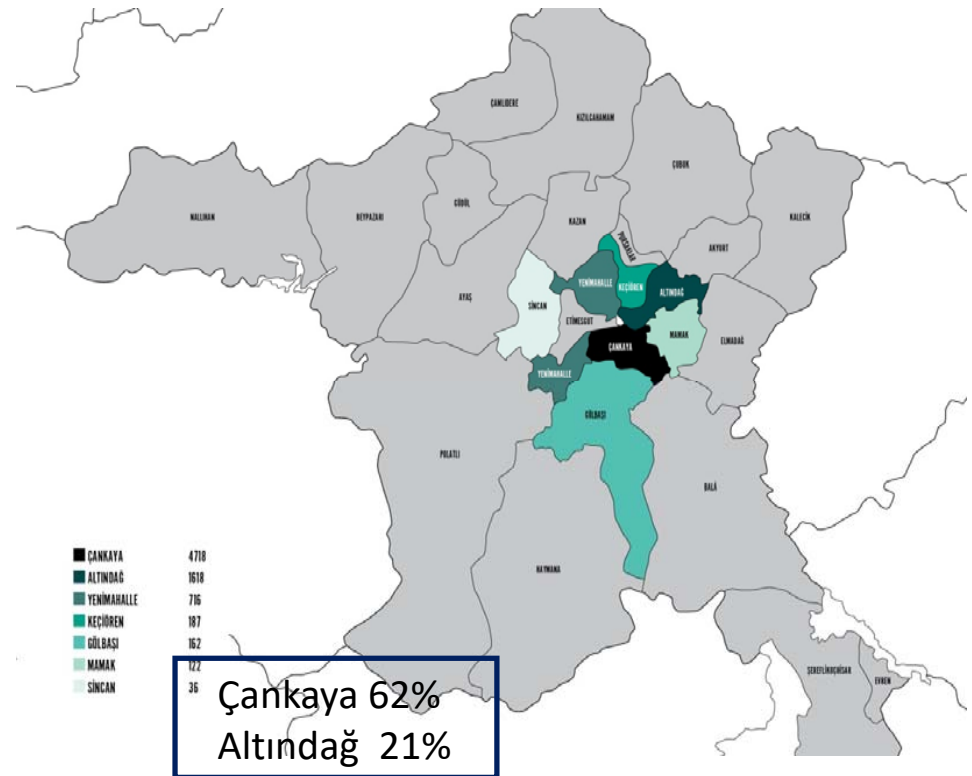


# Female sex workers-number of KPs

Istanbul (n:20,095)

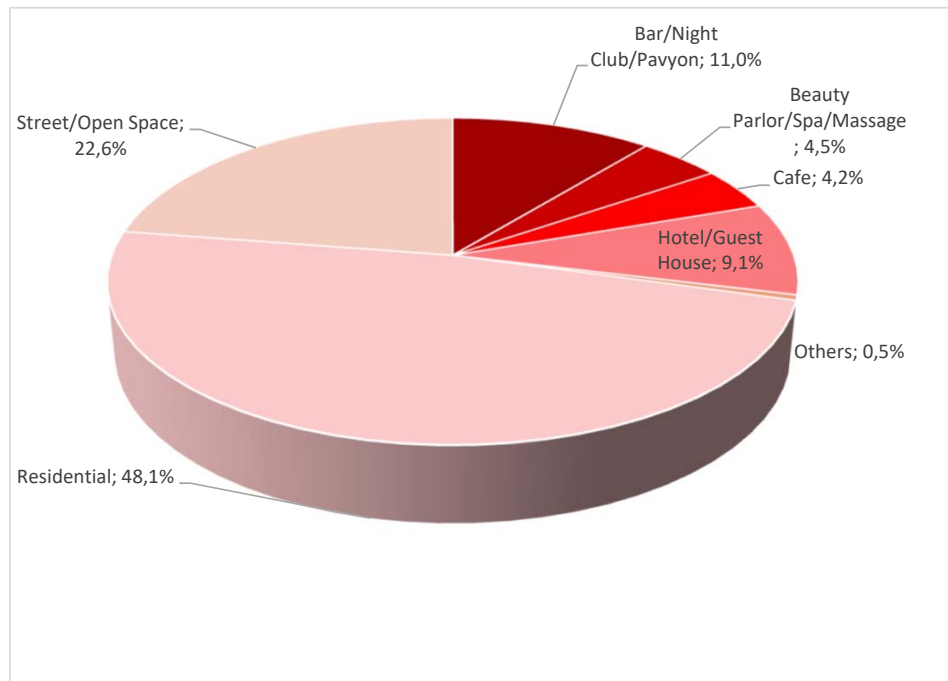


Ankara (n:7152)

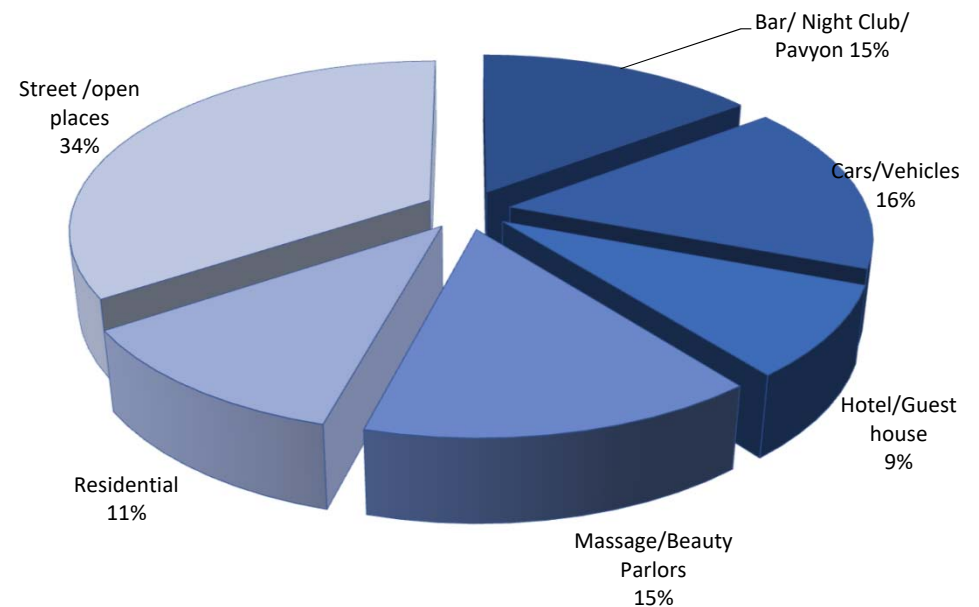


# Female sex workers-spot types

## Spot types in İstanbul



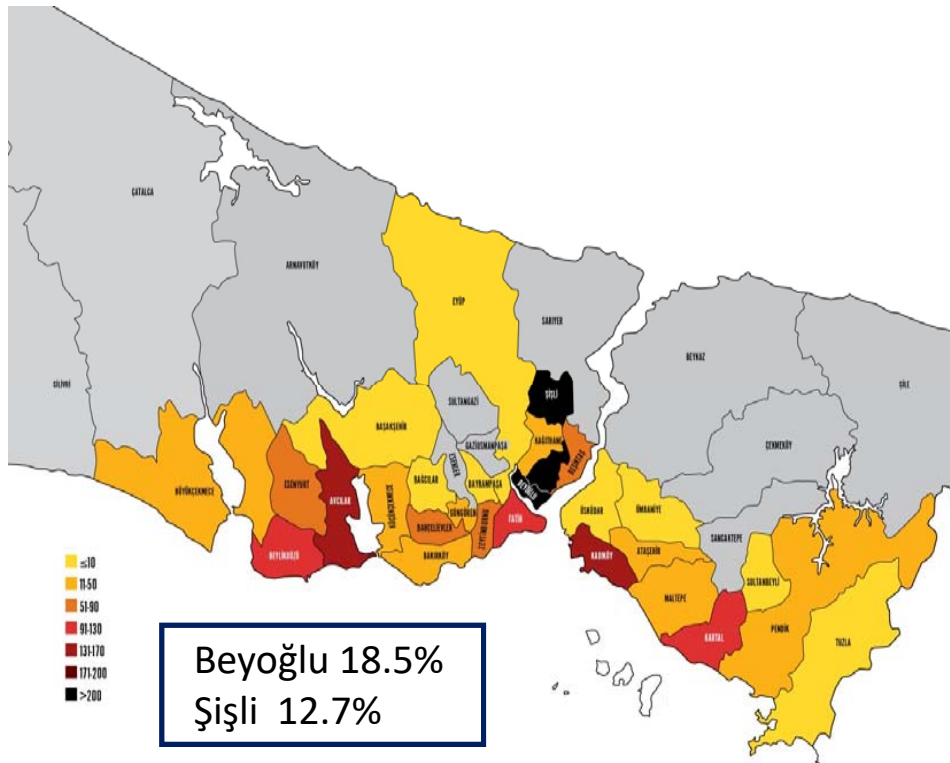
## Spot types in Ankara



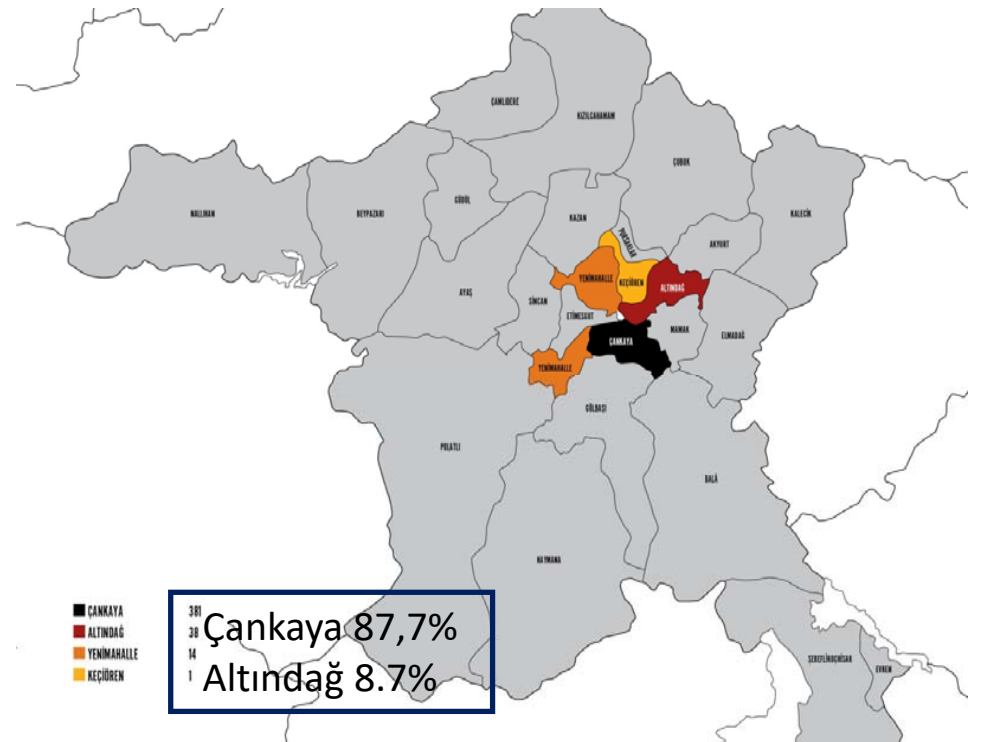


# Transgender sex workers-number of spots

**İstanbul** (1759 spots in 27/30 districts)

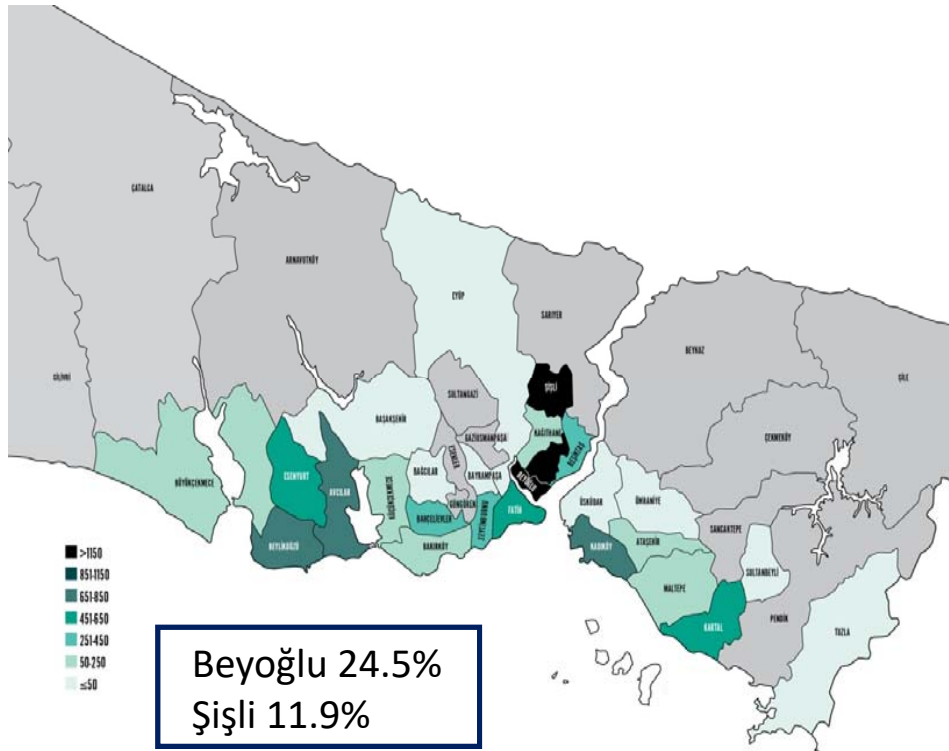


**Ankara** (434 spots in 4/10 districts)

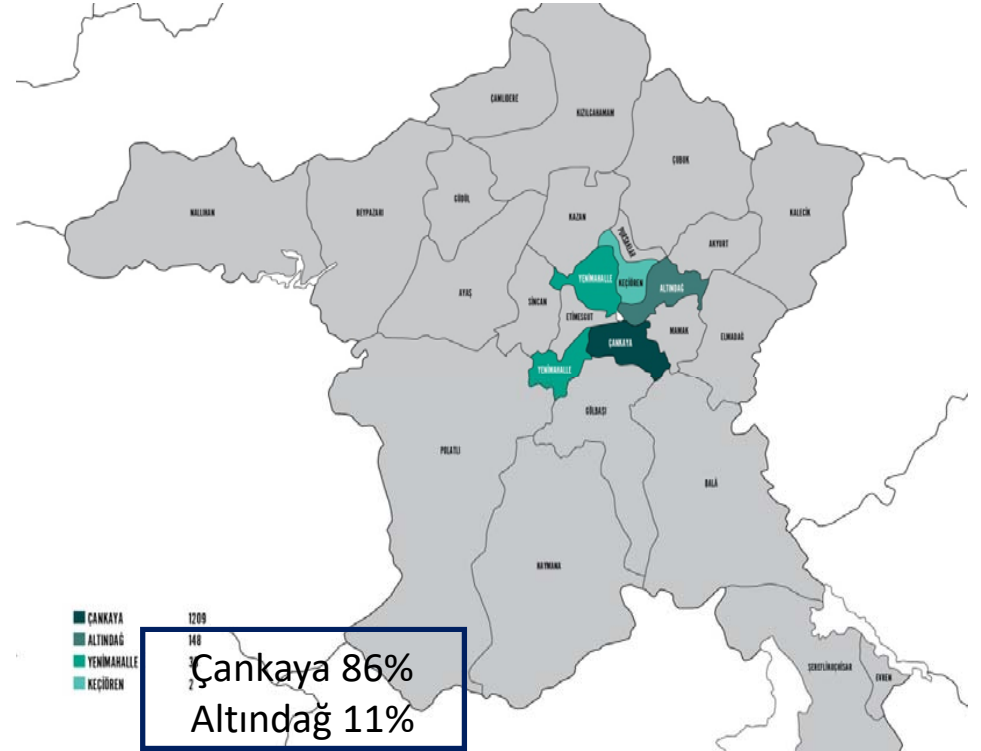


# Transgender sex workers-number of KPs

**İstanbul (n:10,115)**

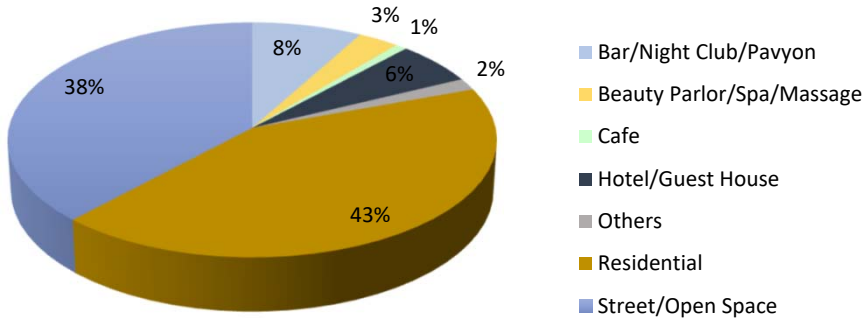


**Ankara (n:1398)**

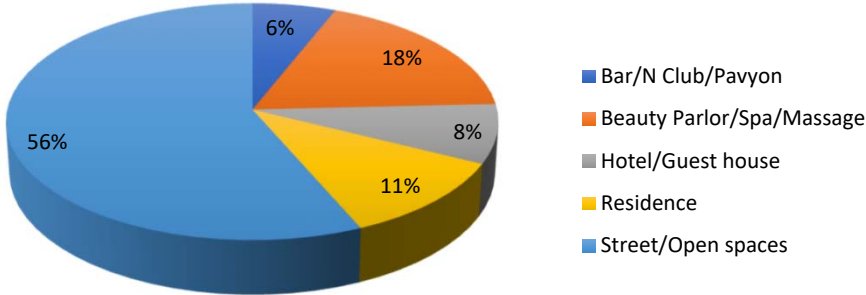


# Transgender sex workers-spot types

## Spot types in İstanbul

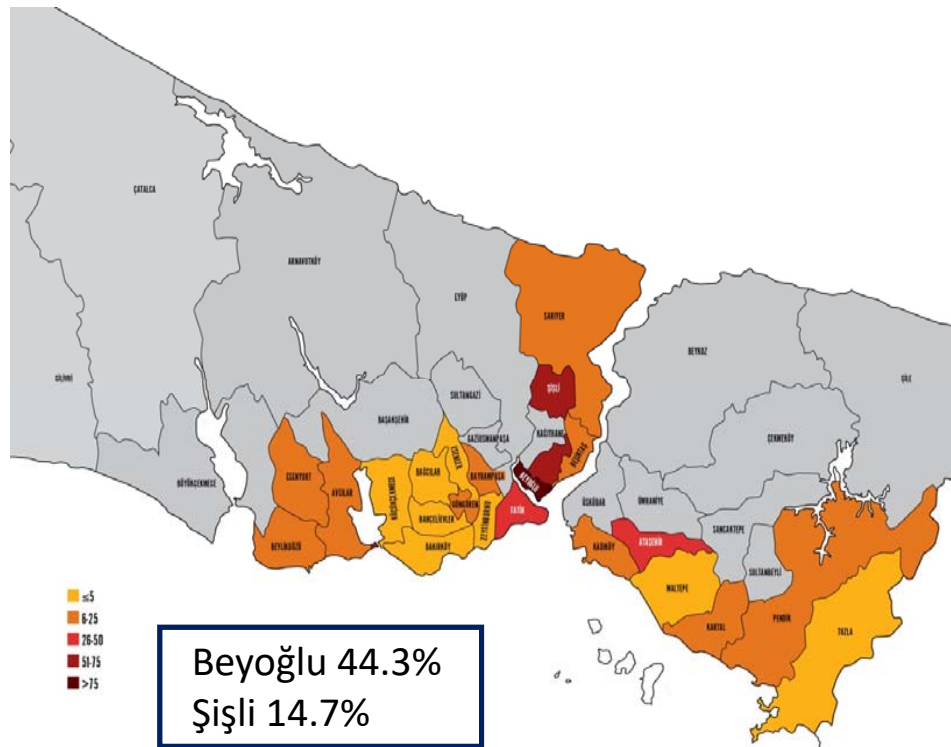


## Spot types in Ankara

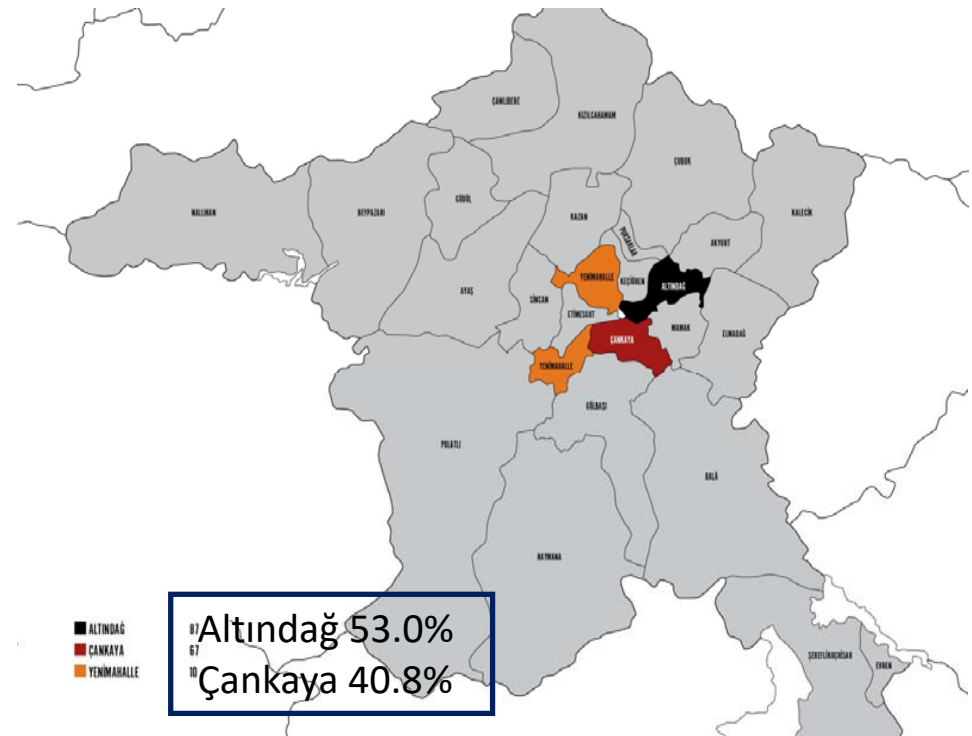


# Men having sex with men-number of spots

**İstanbul** (460 spots in 23/30 districts)

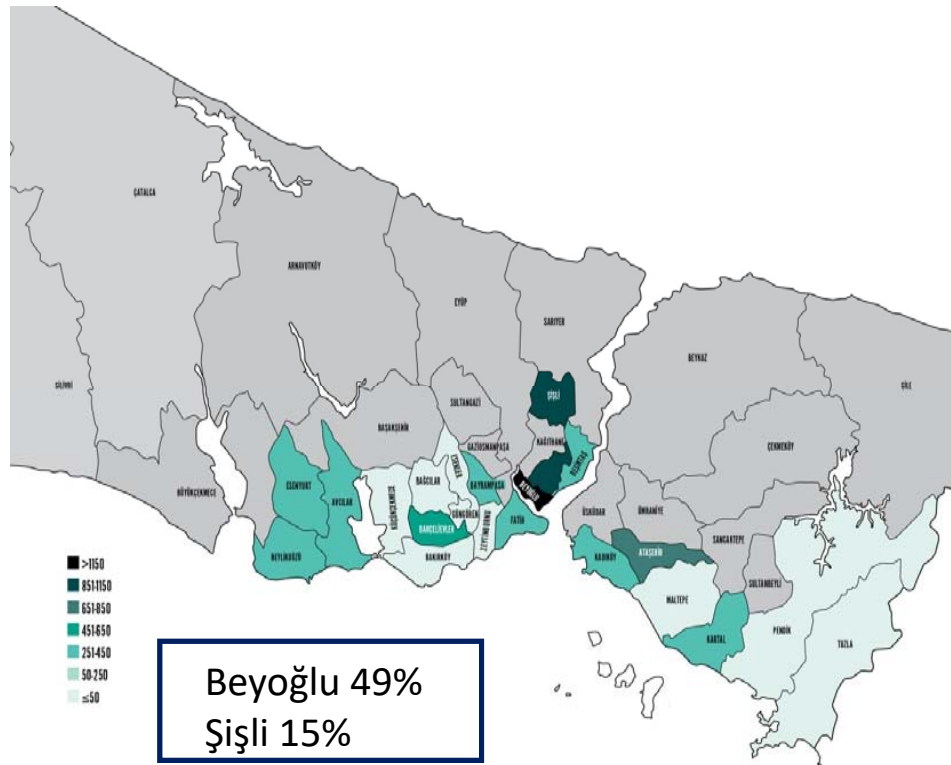


**Ankara** (164 spots in 3/10 districts)

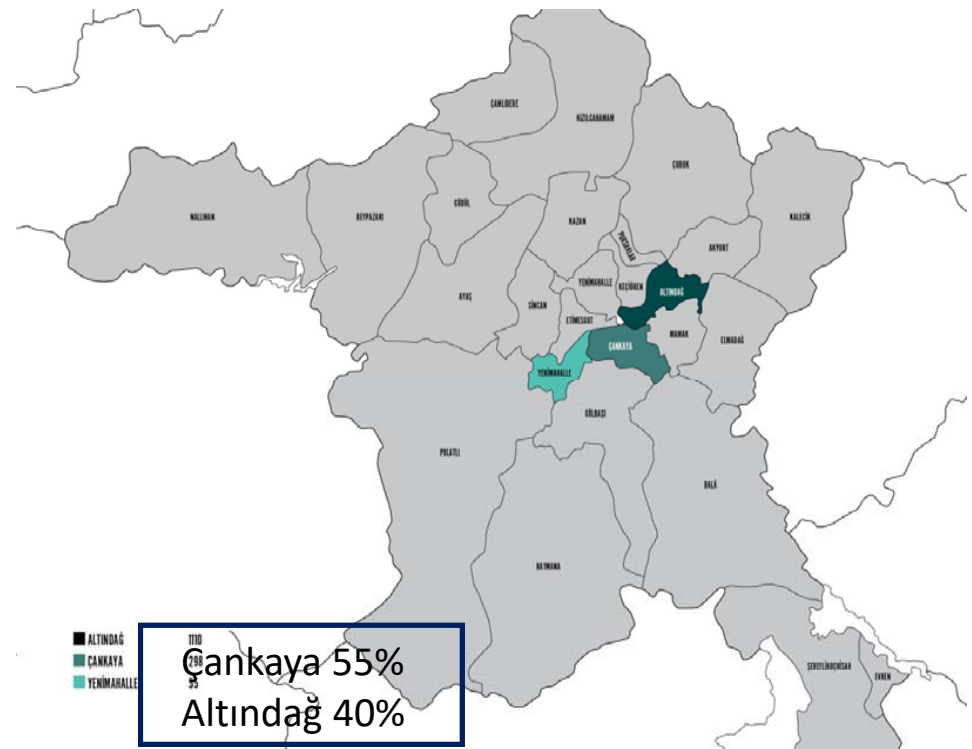


# Men having sex with men-number of KPs

Istanbul (n:5385)

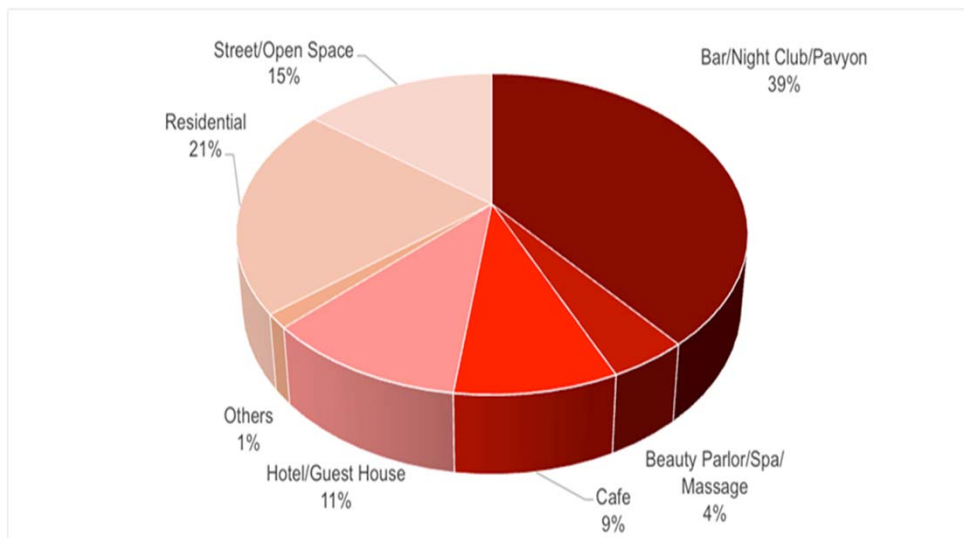


Ankara (n:2459)

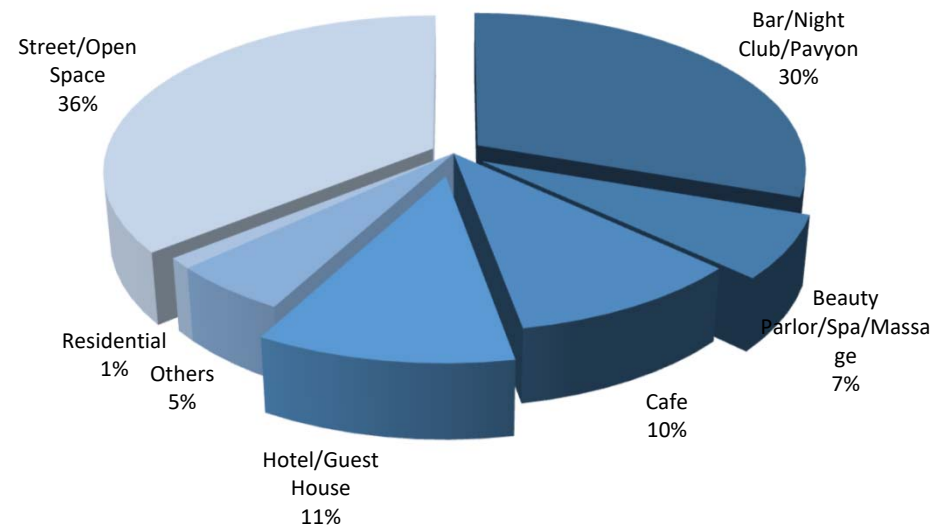


# Men having sex with men-spot types

## Spot types in Istanbul



## Spot types in Ankara



Key Population	Number of Spots	Peak Day Estimate	Peak Days	Peak Times	Avg number of spots KP visit
<b>Istanbul</b>					
<b>FSW</b>	3,429	20,095 (18,113-22,078)	Friday, Saturday	Evening, Night	2.3
<b>TGSW</b>	1,759	10,115 (8,494-11,736)	Friday, Saturday, Sunday	Night	2.4
<b>MSM</b>	460	5,385 (4,565-6,206)	Friday, Saturday	Night, Evening	2.5
<b>Ankara</b>					
<b>FSW</b>	1,325	7152 (6,746-7,558)	Friday, Saturday	Evening	1.3
<b>TGSW</b>	434	1,398 (1,255-1,540)	Every Day	Evening, Night	2.6
<b>MSM</b>	164	2459 (2,159-2,759)	Friday, Saturday	Night, evening	2.5

# Conclusions

- This study suggests large communities of FSWs, TGSWs and MSM in Istanbul and Ankara, with limited access to HIV testing and prevention services.
- The estimated number of MSM is much smaller than expected.
  - This study identified only MSM who were visible and operated on geographic locations.
  - It is estimated that there is a much larger MSM population who prefer mobile apps and websites when looking for sexual partners.
- The typologies, operational times and basic characteristics of KPs vary significantly, which requires development of specific programs tailored for each KP.



# Supplemental slide

- Level 1
  - All data set was analyzed and spot lists were prepared for each site.
- Level 2
  - Key population size estimation at each spot was calculated. As data included minimum and maximum number of key populations at each spot, an average of the two estimates was used to obtain the crude estimation for usual and peak days.
  - For obtaining the final estimates for each site, the crude estimates from the previous step were rolled up into district- and later city-wide crude estimates. Finally, the migration variable (number of visited spots of key populations in a day) was incorporated into the crude estimate to account for duplicates and thereby to generate the final estimates accounting for the duplication.
  - A mathematical function that accounts for duplication was used. After acquiring the final estimates, analyses of population sub-typologies and operational dynamics were conducted.