Estimation of Seasonal Populations within CCDPH’s Jurisdiction

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## Temporary populations and public health planning

As public health programs become more targeted toward specific population segments, there is a need to better understand the spatio-temporal behaviors of such groups to increase intervention efficacy. Of particular concern here are the longer-term mobility patterns of seasonal residents, which have the potential to substantively alter the size and composition of Cook County Department of Public Health’s (CCDPH) population at different times of the year. Accurate estimates of such temporary populations is especially important when it comes to the phased rollout of COVID-19 vaccinations, which requires accurate estimates of the size and location of priority groups. This article: (1) briefly summarizes challenges associated with estimating seasonal populations; (2) proposes a methodology for counting seasonal residents using American Community Survey (ACS) data; and (3) .

## Challenges for estimating seasonal populations

Temporarily occupied units are sample units occupied at the time of interview entirely by people who will be there for 2 months or less. At sample units where all the people are staying less than 2 months, the respondent is asked a subset of the questions from the housing section, including the question on vacancy status. The current residence concept is unique to the American Community Survey. By using the current residence to decide for whom to collect survey information, the ACS can provide a more accurate description of an area’s social and economic characteristics. Most surveys, as well as the decennial census, use the concept of usual residence. Usual residence is defined as the place where a person lives and sleeps most of the time. The census defines everyone as having only one usual residence.

Hello Conway and Rork (2016) test now and again (Conway and Rork 2016)

## Methodology

In order to develop a strategy for estimating seasonal populations within CCDPH, we first carried out a literature review. American Community Survey to derive estimates of the seasonal populations.

## Results

## Discussion

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

summary(cars)

## speed dist   
## Min. : 4.0 Min. : 2.00   
## 1st Qu.:12.0 1st Qu.: 26.00   
## Median :15.0 Median : 36.00   
## Mean :15.4 Mean : 42.98   
## 3rd Qu.:19.0 3rd Qu.: 56.00   
## Max. :25.0 Max. :120.00

## Including Plots

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

Conway, Karen Smith, and Jonathan C. Rork. 2016. “How Has Elderly Migration Changed in the Twenty-First Century? What the Data Canand Cannot.” *Demography* 53 (4): 1011–25.