

# 2017 Undiagnosed Estimates for King County - Darcy Version

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# 1 Summary of Results

The estimated undiagnosed fraction declined slightly overall, and in every group, since 2015. However, note that the number of both undiagnosed and total cases rose slightly in all groups.

## 1.1 Base Case

Subgroup	PLWHA	Undiagnosed Cases	True Prevalence	Undiagnosed Fraction (%)	NA
<b>2016</b>					
MSM	5197	238.2	5435.2	4.4	NA
non-MSM	1580	207.7	1787.7	11.6	NA
Total	6777	445.9	7222.9	6.2	NA
<b>2017</b>					
MSM	5291	226.1	5517.1	4.1	NA
non-MSM	1658	200.6	1858.6	10.8	NA
Total	6949	426.7	7375.7	5.8	NA

## 1.2 Upper Bound

Subgroup	PLWHA	Undiagnosed Cases	True Prevalence	Undiagnosed Fraction (%)	NA
<b>2016</b>					
MSM	5197	474.0	5671.0	8.4	NA
non-MSM	1580	369.4	1949.4	18.9	NA
Total	6777	843.5	7620.5	11.1	NA
<b>2017</b>					
MSM	5291	454.0	5745.0	7.9	NA
non-MSM	1658	354.5	2012.5	17.6	NA
Total	6949	808.4	7757.4	10.4	NA

Table 1: Column Percent shows the composition of the total sample. The Percent Yes, Percent No and Percent Missing columns indicate the row percents of the three possible testing history statuses within each subgroup

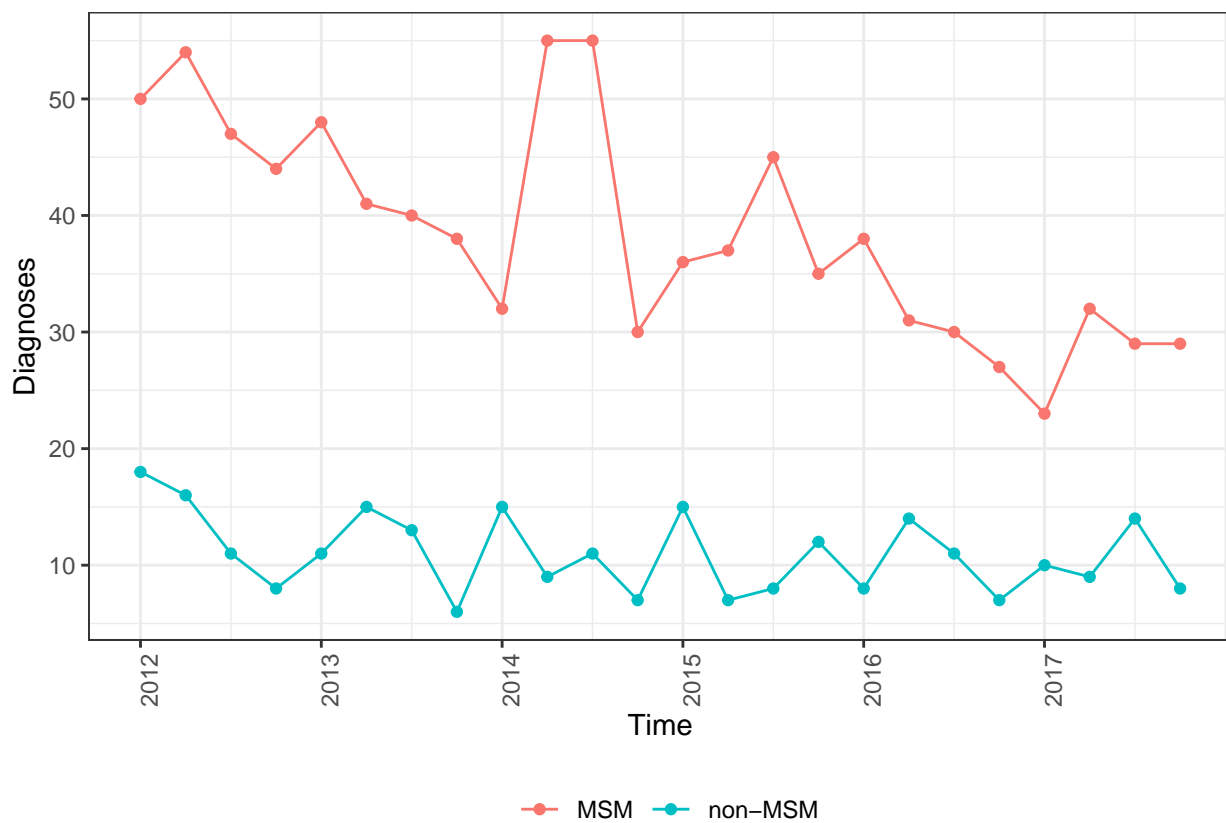
Value	N	Column Percent	Percent Yes	Percent No	Percent Missing
All	1189	100	71	16	13
MSM	926	78	81	9	10
non-MSM	263	22	38	40	23

## 2 Diagnoses

### 2.1 Analytic sample

Analytic data set has 1189 cases for 2005-2016.

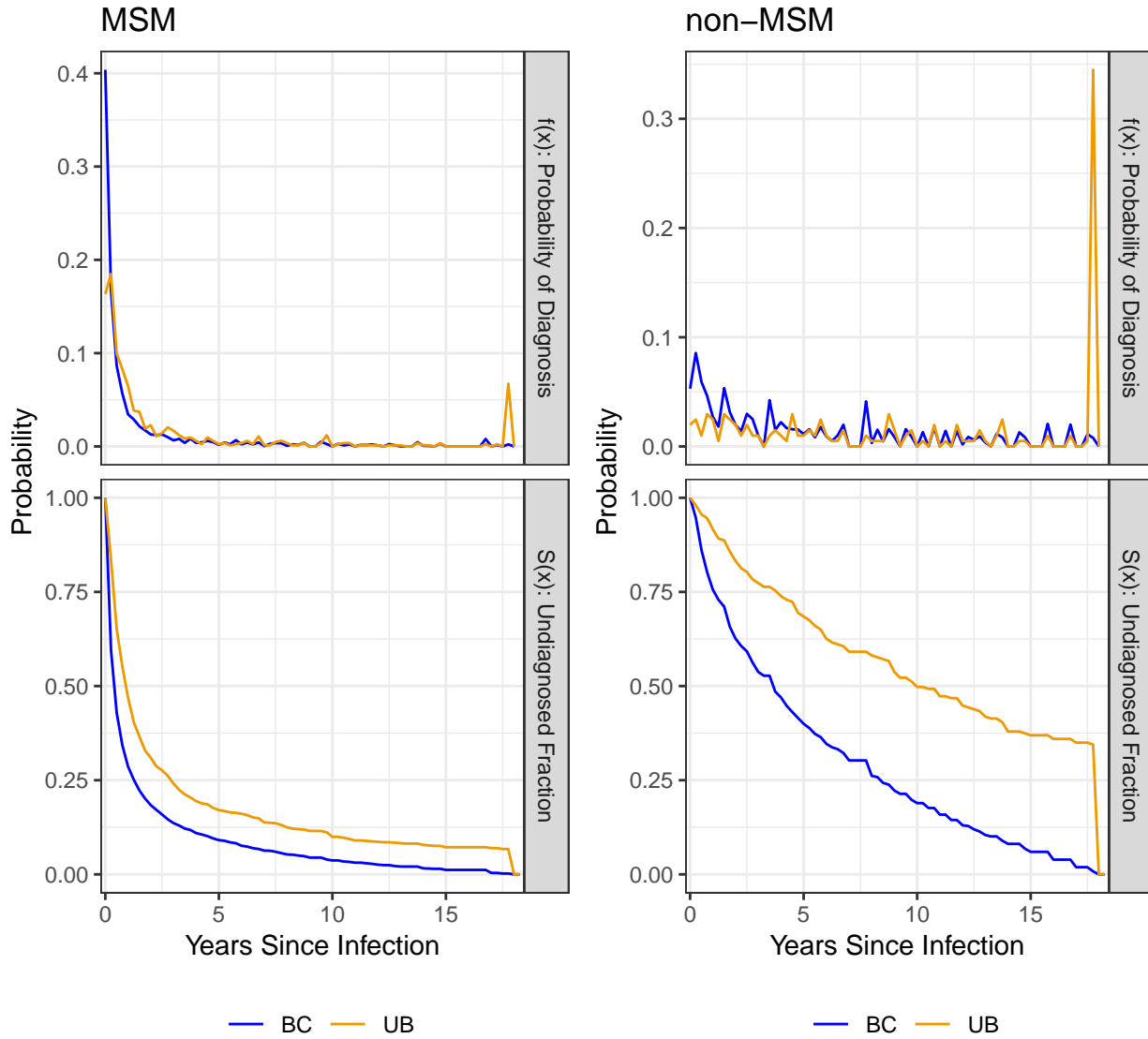
### 2.2 Diagnoses over time by MSM/Area subgroups



### 3 Subgroup Sizes and Testing Histories

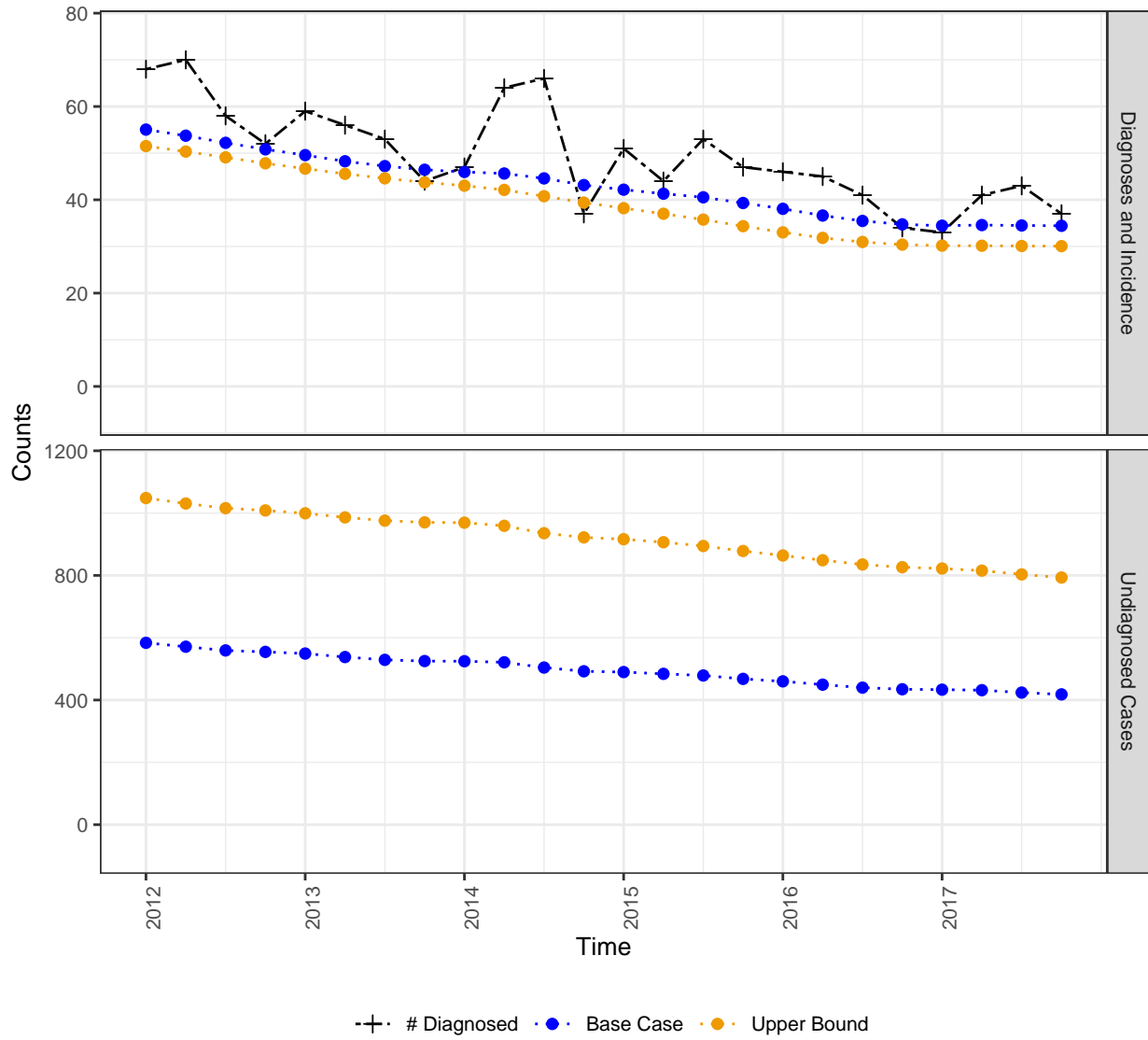
### 4 Time from Infection to Diagnosis (TID)

The plots below show the TID curves for the MSM subgroups. BC=Base Case and UB=Upper Bound. For each subgroup, the upper plot panel is the probability of diagnosis curve (the pdf) and the lower plot panel is the survivor curve (1-cdf). The lower plot panel's y-axis thus indicates the fraction remaining undiagnosed at a given number of years since infection (x-axis).



### 5 Incidence and undiagnosed counts

The upper plot panels show diagnoses and estimated incidence, while the lower plot panels show undiagnosed cases. The upper panels have different y-scales.



## 6 Undiagnosed fractions

These plots show the total number of PLWH (x-axis) broken down by diagnosed and undiagnosed (colors) for the Base Case versus Upper Bound estimates (panels). Undiagnosed fractions are indicated by the percent labels.

