2017 Undiagnosed Estimates for King County

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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
2016					
MSM	5197	238.2	5435.2	4.4	NA
non-MSM	1580	242.7	1822.7	13.3	NA
Total	6777	480.9	7257.9	6.6	NA
2017					
MSM	5291	226.1	5517.1	4.1	NA
non-MSM	1658	235.7	1893.7	12.4	NA
Total	6949	461.9	7410.9	6.2	NA

1.2 Upper Bound

Subgroup	PLWHA	Undiagnosed Cases	True Prevalence	Undiagnosed Fraction (%)	NA
2016					
MSM	5197	474.0	5671.0	8.4	NA
non-MSM	1580	448.4	2028.4	22.1	NA
Total	6777	922.4	7699.4	12.0	NA
2017					
MSM	5291	454.0	5745.0	7.9	NA
non-MSM	1658	434.8	2092.8	20.8	NA
Total	6949	888.8	7837.8	11.3	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

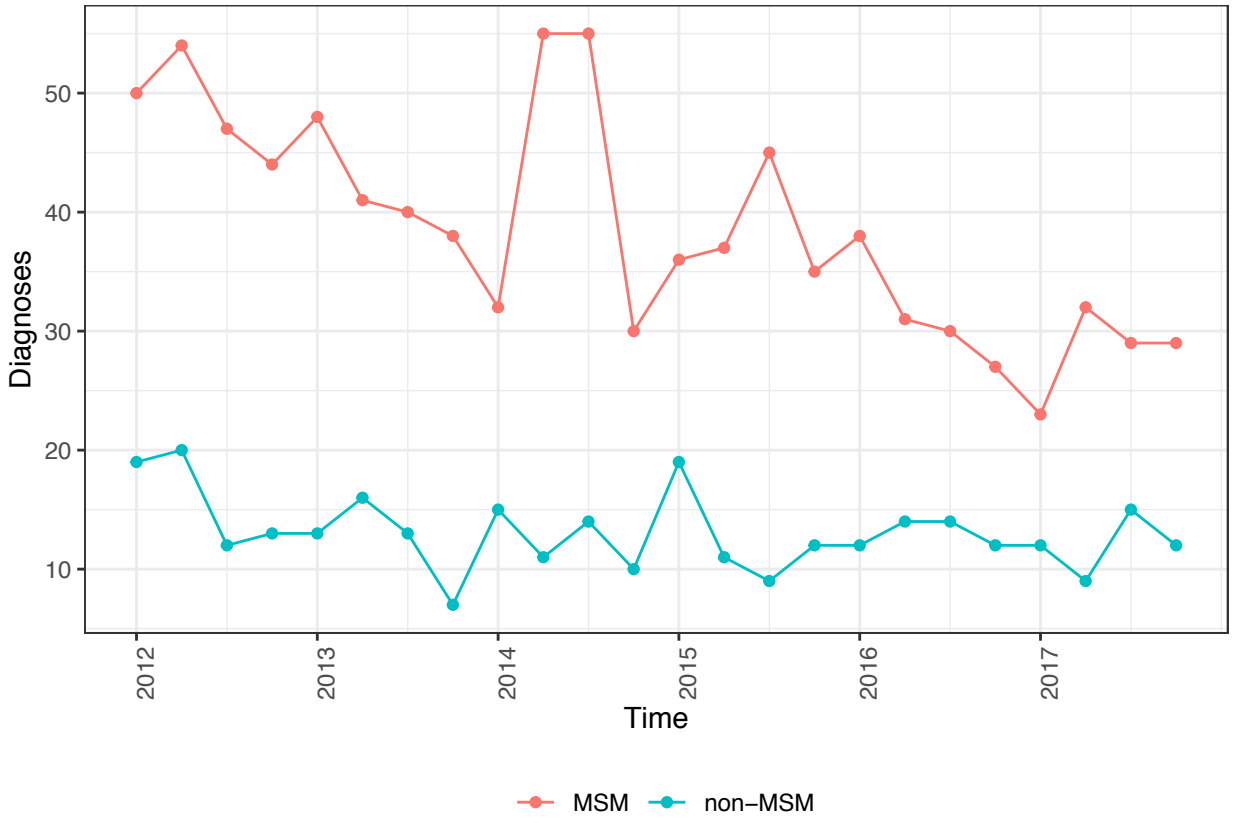
Value	N	Column Percent	Percent Yes	Percent No	Percent Missing
All	1240	100	71	16	13
MSM	926	75	81	9	10
non-MSM	314	25	41	36	23

2 Diagnoses

2.1 Analytic sample

Analytic data set has 1240 cases for 2005-2016.

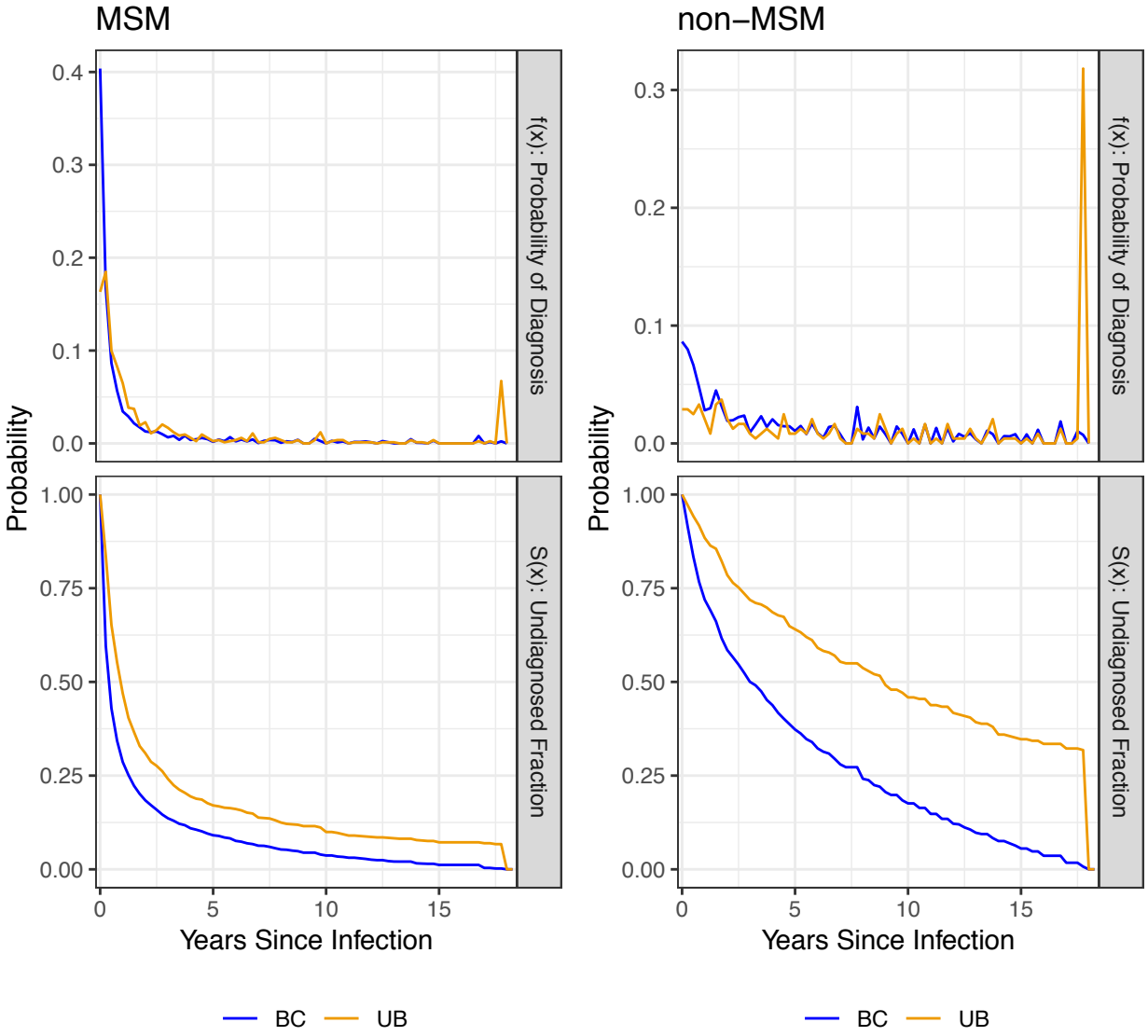
2.2 Diagnoses over time by MSM/Area subgroups



3 Subgroup Sizes and Testing Histories

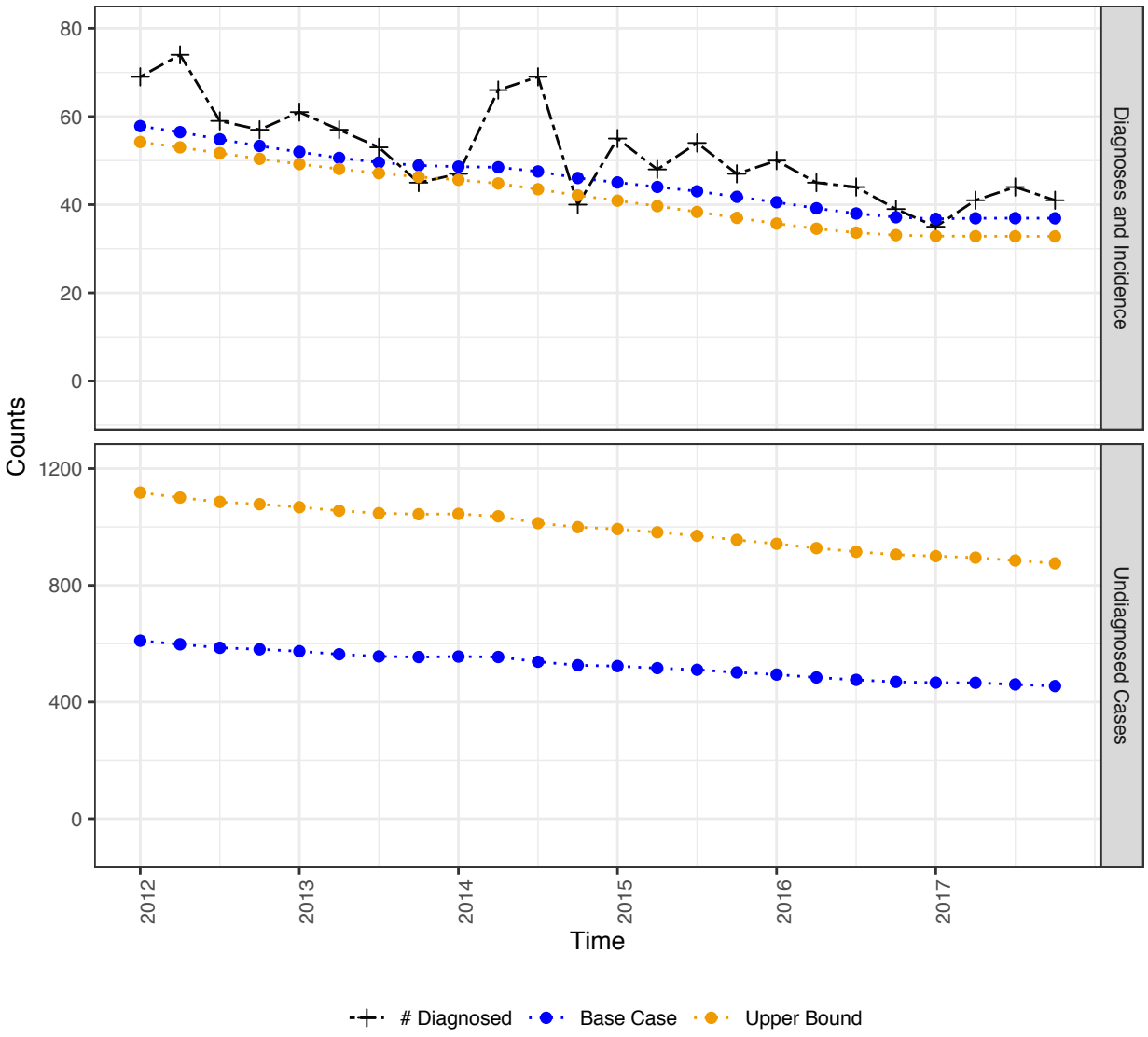
4 Time from Infection to Diagnosis (TID)

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).



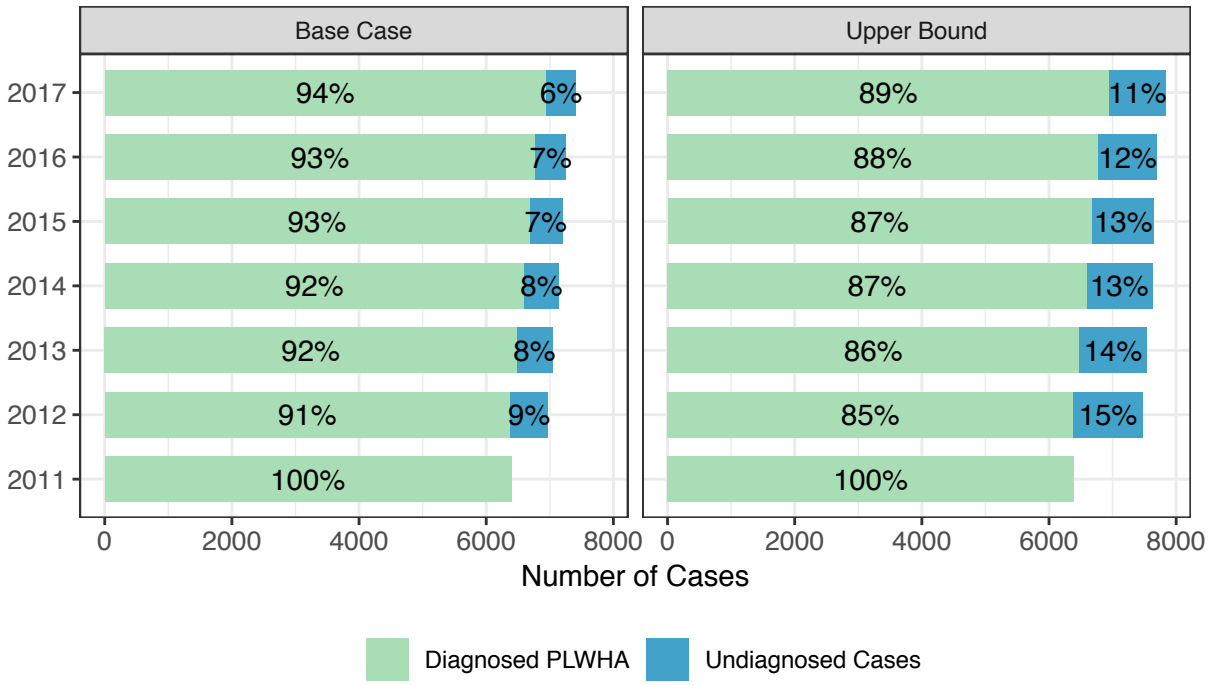
5 Incidence and undiagnosed counts

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.


Base Case
Upper Bound
2017
2016
2015
2014
2013
2012
2011
94%
6%
93%
7%
93%
7%
92%
8%
92%
8%
91%
9%
100%
89%
11%
88%
12%
87%
13%
87%
13%
86%
14%
85%
15%
100%
0
2000
4000
6000
8000
Number of Cases
Diagnosed PLWHA
Undiagnosed Cases