2016 Undiagnosed Estimates for King County, MSM by race

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10 October, 2017

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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 (%)
2015				
White	3537	136.6	3673.6	3.7
Latino	623	47.8	670.8	7.1
Black	471	36.8	507.8	7.2
Other	478	35.5	513.5	6.9
Total-stratified	5109	256.7	5365.7	4.8
2016				
White	3519	124.1	3643.1	3.4
Latino	669	49.2	718.2	6.9
Black	502	33.4	535.4	6.2
Other	509	37.4	546.4	6.8
Total-stratified	5199	244.1	5443.1	4.5

1.2 Upper Bound

Subgroup	PLWHA	Undiagnosed Cases	True Prevalence	Undiagnosed Fraction (%)
2015				
White	3537	264.6	3801.6	7.0
Latino	623	90.2	713.2	12.6
Black	471	67.5	538.5	12.5
Other	478	63.9	541.9	11.8
Total-stratified	5109	486.2	5595.2	8.7
2016				
White	3519	248.8	3767.8	6.6
Latino	669	92.0	761.0	12.1
Black	502	63.4	565.4	11.2
Other	509	67.0	576.0	11.6
Total-stratified	5199	471.2	5670.2	8.3

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

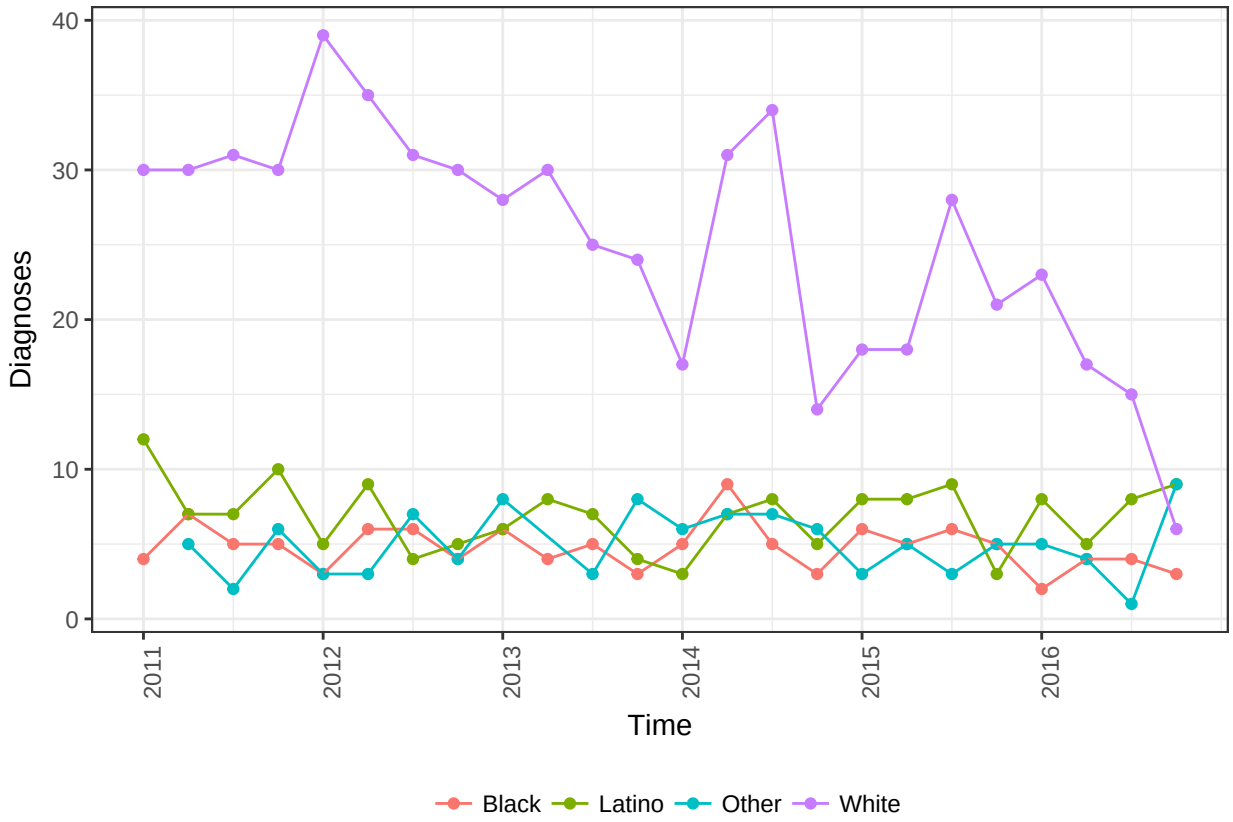
Value	N	Column Percent	Percent Yes	Percent No	Percent Missing
All	995	100	84	9	7
Black	115	12	81	13	6
Latino	165	17	82	10	7
Other	110	11	77	17	5
White	605	61	86	6	8

2 Diagnoses

2.1 Analytic sample

Analytic data set has 995 cases for 2005-2016.

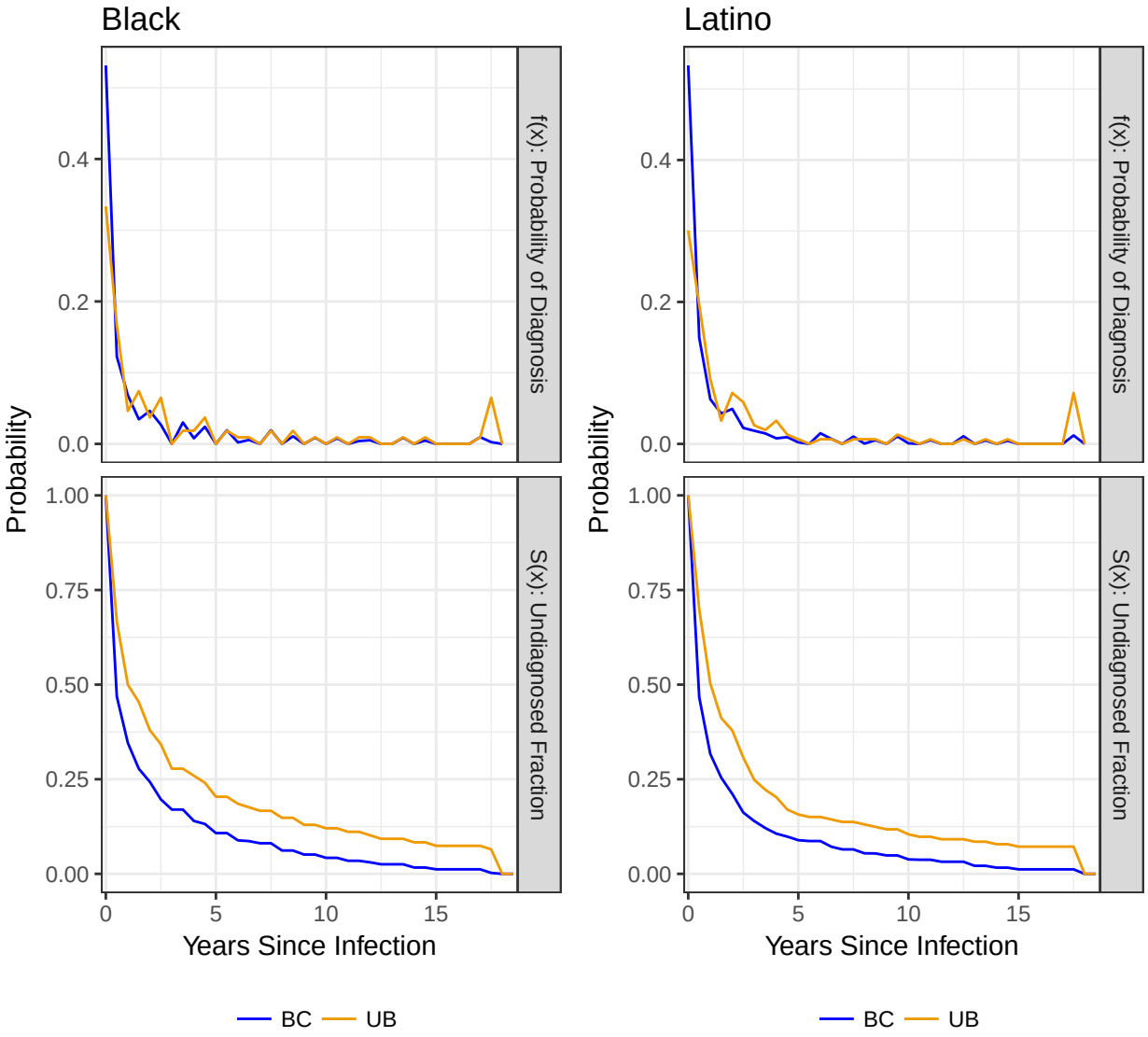
2.2 Diagnoses over time by MSM/Area subgroups

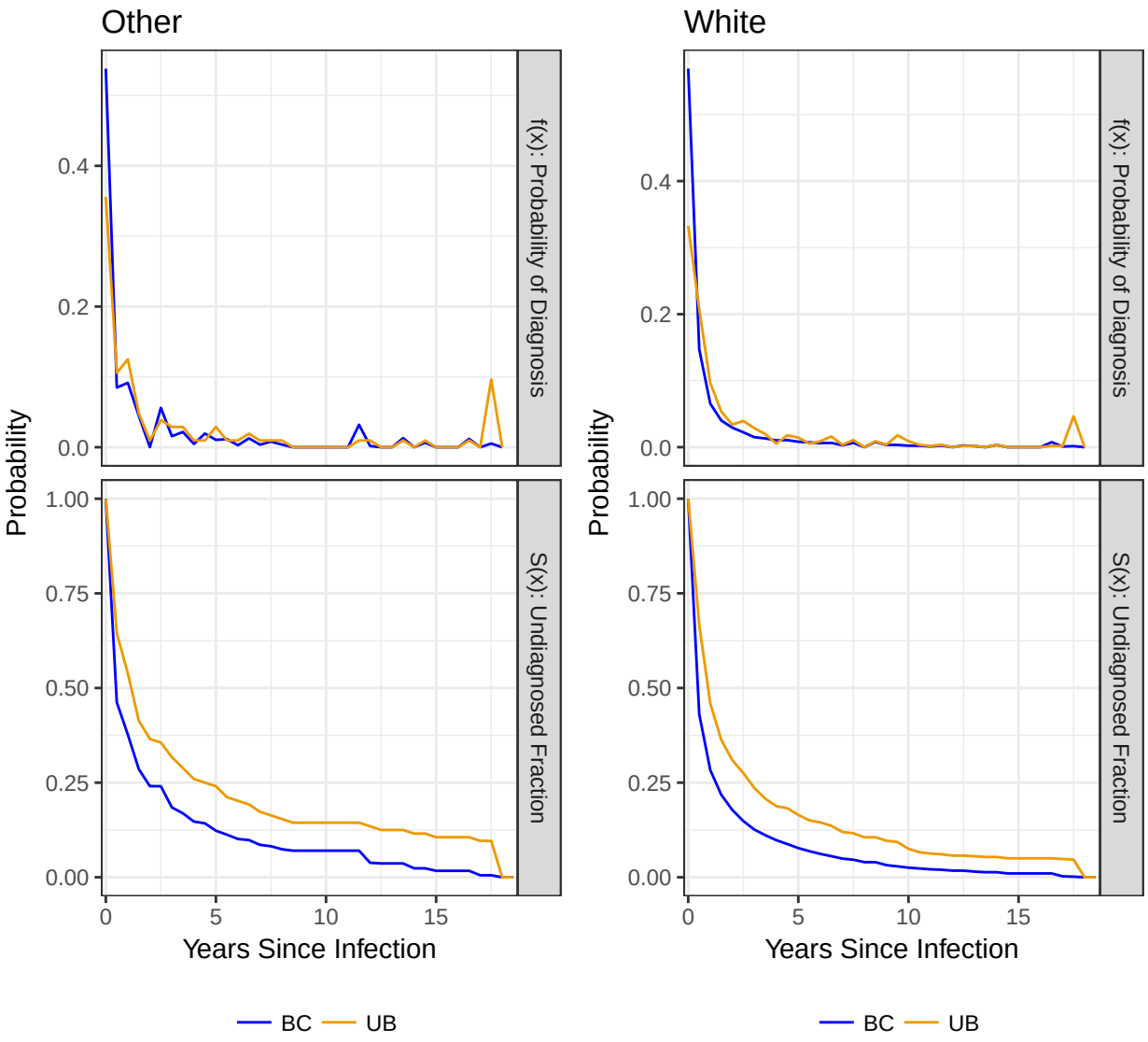


3 Subgroup Sizes and Testing Histories

4 Time from Infection to Diagnosis (TID)

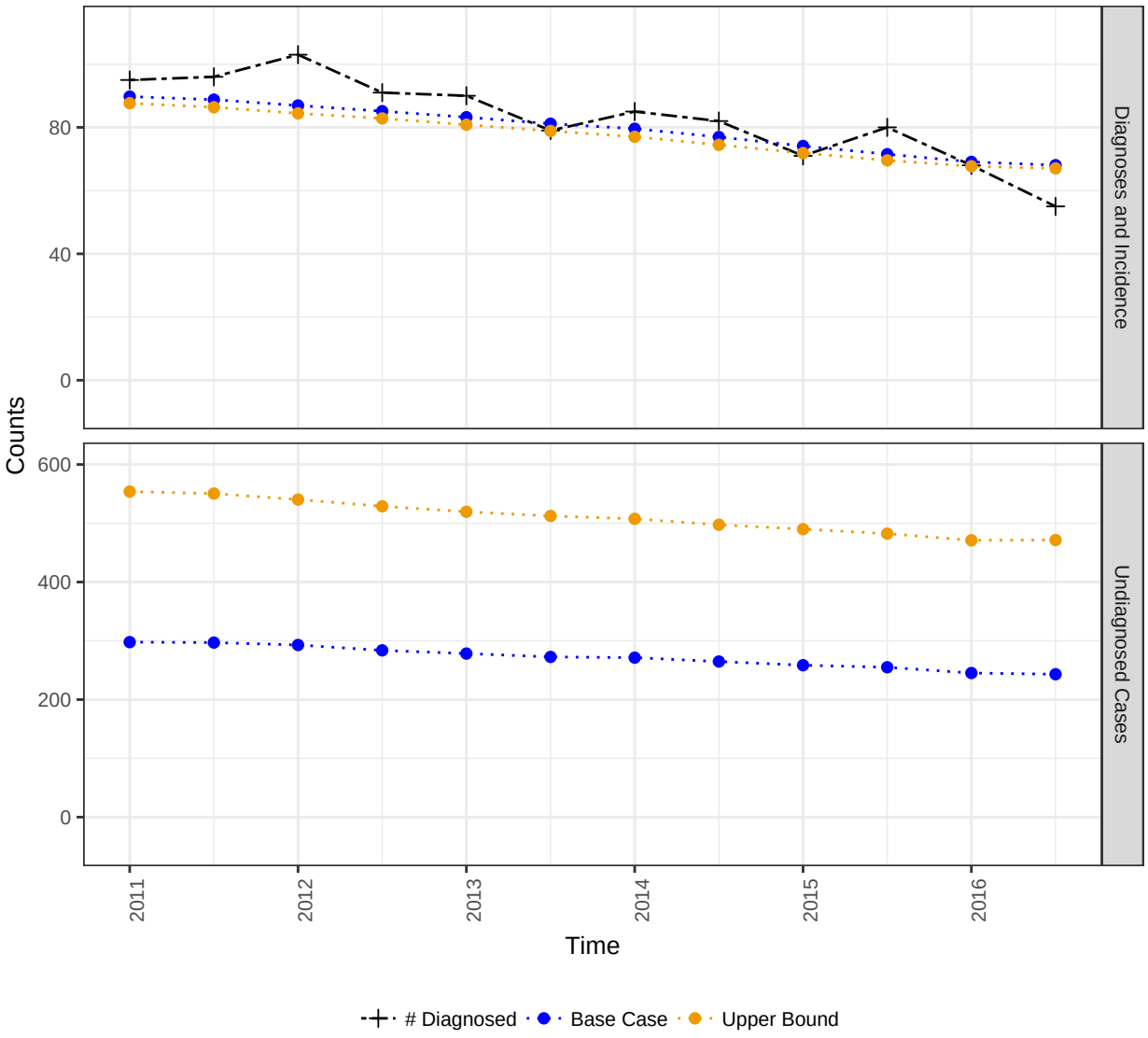
The plots below show the TID curves for the MSM subgroups. BC=Base Case and UB=Upper Bound. For each subgroup, the upper plot panel is the probability of diagnosis curve (the pdf) and the lower plot panel is the survivor curve (1-cdf). The lower plot panel's y-axis thus indicates the fraction remaining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





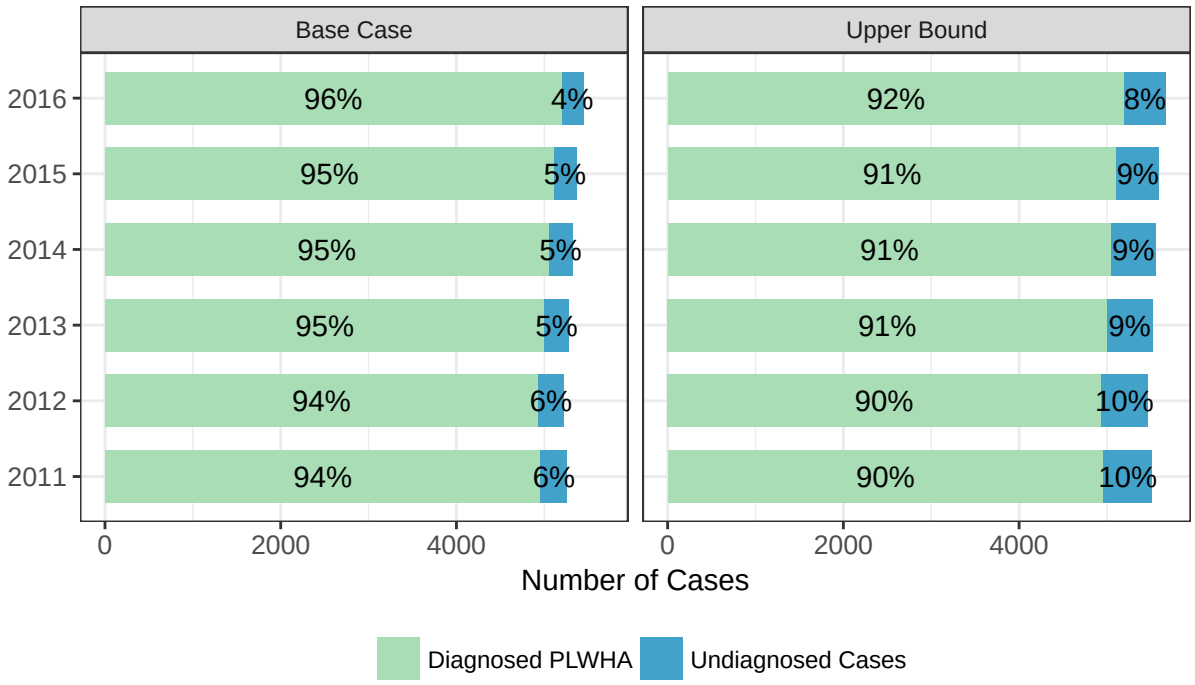
5 Incidence and undiagnosed counts

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
2016
2015
2014
2013
2012
2011
96%
4%
95%
5%
95%
5%
95%
5%
94%
6%
94%
6%
92%
8%
91%
9%
91%
9%
91%
9%
90%
10%
90%
10%
0
2000
4000
Number of Cases
Diagnosed PLWHA
Undiagnosed Cases