Supplementary material

Supplementary Table S1: HIV prevalence among outpatients with influenza-like illness and inpatients with severe (acute or chronic) respiratory illness, Klerksdorp and Pietermaritzburg, South Africa, January 2013-December 2015

Age, year	Influenza-like illness	Severe respiratory illness	Severe acute respiratory illness	Severe chronic respiratory illness
	% (n/N)	% (n/N)	% (n/N)	% (n/N)
<1	1.5 (7/464)	9.3 (96/1032)	8.7 (84/961)	16.9 (12/71)
1–4	2.0 (17/833)	13.7 (82/598)	12.7 (71/559)	28.2 (11/39)
5–24	15.7 (152/970)	60.4 (198/328)	54.3 (102/188)	68.6 (96/140)
25–44	59.3 (581/980)	90.5 (1221/1349)	89.3 (509/570)	91.4 (712/779)
45–64	43.9 (154/351)	64.9 (535/824)	65.6 (225/343)	64.5 (310/481)
≥65	7.1 (4/56)	23.6 (54/229)	21.1 (24/114)	26.1 (30/115)
Total	25.0 (915/3654)	50.1 (2186/4360)	37.1 (1015/2735)	72.1 (1171/1625)

Supplementary Table S2. Rhinoviruses detection and rhinoviruses attributable fraction among patients hospitalised with severe acute respiratory illness by HIV, Klerksdorp and Pietermaritzburg, South Africa, January 2013–December 2015

Inpatients with severe acute respiratory illness

Age, year†	Attributable fraction, % (95% CI)	Observed detection rate n/N (%)	Adjusted detection rate, %
Overall			
<1	**41.1 (20.4 to 56.4)**	312/961 (32.5)	13.4
1–4	**60.5 (45.8 to 71.2)**	224/559 (40.1)	24.3
5–24	**61.8 (43.7 to 74.1)**	61/188 (32.4)	20.1
25–44	**55.8 (29.4 to 72.3)**	103/570 (18.1)	10.1
45–64	**49.1 (8.5 to 71.7)**	40/343 (11.7)	5.7
≥65	27.7 (0 to 71.1)	11/114 (9.6)	2.6
<5	**51.6 (39.9 to 61.0)**	536/1520 (35.3)	18.2
≥5	**58.0 (45.7 to 67.6)**	215/1215 (17.7)	10.3
All	**54.3 (46.3 to 61.1)**	751/2735 (27.5)	14.9
HIV-infected			
<1	29.4 (0 to 73.3)	26/84 (31.0)	9.1
1–4	7.3 (0 to 53.1)	24/71 (33.8)	2.5
5–24	**43.6 (1.3 to 67.8)**	26/102 (25.5)	11.1
25–44	**59.6 (30.5 to 76.5)**	96/509 (18.9)	11.3

45–64	14.3 (0 to 58.5)	24/225 (10.7)	1.5
≥65	0 (0 to 75.2)	0/24 (0)	0
<5	16.4 (-45.3 to 51.9)	50/155 (32.3)	5.3
≥5	**45.4 (23.8 to 60.9)**	146/860 (17.0)	7.7
All	**39.0 (19.3 to 54.0)**	196/1015 (19.3)	7.5
HIV-uninfected			
<1	**43.2 (22.0 to 58.7)**	286/877 (32.6)	14.1
1–4	**69.2 (55.6 to 78.7)**	200/488 (41.0)	28.4
5–24	**73.7 (54.6 to 84.8)**	35/86 (40.7)	30
25–44	38.1 (0 to77.2)	7/61 (11.5)	3.9
45–64	**73.2 (30.3 to 89.7)**	16/118 (13.6)	9.9
≥65	50.0 (0 to 81.8)	11/90 (12.2)	6
<5	**57.2 (45.5 to 66.3)**	486/1365 (35.6)	20.4
≥5	**68.8 (53.7 to 79.0)**	69/355 (19.4)	13.3
All	**59.5 (50.3 to 67.0)**	555/1720 (32.3)	19.2

Bold values indicates significant values

†The overall rhinovirus AF was obtained from models adjusted for any underlying medical conditions and for other respiratory viruses investigated in this study. Age group and HIV infection were also included as predictors in nonstratified models.

Supplementary Table S3. Rhinoviruses detection and rhinoviruses attributable fraction among patients hospitalised with severe chronic respiratory illness by HIV, Klerksdorp and Pietermaritzburg, South Africa, January 2013–December 2015

Inpatients with severe chronic respiratory illness

Age, yeaer†	Attributable fraction, % (95% CI)	Observed detection rate n/N (%)	Adjusted detection rate, %
Overall			
<1	0 (0 to 45.0)	20/71 (28.2)	-0.5
1–4	**54.9 (9.4 to 77.6)**	17/39 (43.6)	23.9
5–24	**39.6 (3.9 to 62.1)**	35/140 (25.0)	9.9
25–44	**41.6 (7.0 to 63.3)**	116/779 (14.9)	6.2
45–64	41.1 (0 to 66.6)	52/481 (10.8)	4.4
≥65	34.0 (0 to 72.5)	12/115 (10.4)	3.5
<5	26.8 (0 to 53.7)	37/110 (33.6)	9
≥5	**39.9 (21.5 to 54.0)**	215/1515 (14.2)	5.7
All	**37.5 (21.5 to 50.2)**	252/1625 (15.5)	5.8
HIV-infected			
<1	0 (0 to 69.4)	1/12 (8.3)	-8.9
1–4	63.5 (0 to 90.1)	6/12 (50.0)	34.7
5–24	**46.6 (5.1 to 70.0)**	27/96 (28.1)	13.1
25–44	**43.7 (4.0 to 67.0)**	108/712 (15.2)	6.6

45–64	38.8 (0 to 69.4)	38/310 (12.3)	4.8
≥65	33.7 (0 to 85.2)	4/30 (13.3)	4.5
<5	26.4 (0 to 73.6)	7/24 (30.4)	8.0
≥5	**44.6 (22.7 to 60.3)**	177/1148 (15.4)	6.9
All	**42.9 (21.6 to 58.3)**	184/1172 (15.7)	6.7
	HIV-uninfected		
<1	17.8 (0 to 57.9)	19/59 (32.2)	5.7
1–4	52.1 (0 to 79.3)	11/28 (39.3)	20.5
5–24	32.1 (0 to 70.6)	8/44 (18.2)	5.8
25–44	28.2 (0 to 73.3)	8/67 (11.9)	3.4
45–64	44.8 (0 to 78.8)	14/171 (8.2)	3.7
≥65	34.5 (0 to 77.1)	8/85 (9.4)	3.2
<5	34.4 (0 to 61.0)	30/87 (34.5)	11.9
≥5	33.7 (0 to 58.6)	38/367 (10.4)	3.5
All	**33.6 (6.34 to 53.0)**	68/454 (15.0)	5

Bold values indicates significant values

†The overall rhinovirus AF was obtained from models adjusted for any underlying medical conditions and for other respiratory viruses investigated in this study. Age group and HIV infection were also included as predictors in nonstratified models.