

**Supplementary Table 2. Summary of published articles included in the analyses, with reference list**

Location	Years	Case definition	Age range	% Influenza positive, all ages	% Influenza positive, 18–64 years	% Influenza positive, ≥65 years	PCR testing	Quality Score [1]
Kuopio, Finland [2]	1981–1982	Pneumonia	-	2.2	6.7	0.0	No	3
Beer-Sheva, Israel [3]	1991–1992	CAP	≥17	5.8	-	-	No	2
Multiple sites, Spain [4]	1992–1994	CAP among COPD patients*	-	0.0	-	-	No	2
Melbourne, Australia [5]	1993–1994	AE-asthma*	17–66	25.3	-	-	No	1
Houston, USA [6]	1993–1995	Acute respiratory condition	≥18	8.7	9.5	6.5	Yes	2
Coast Province, Kenya [7]	1994–1996	Acute pneumonia	≥15	6.1	-	-	No	2
Okayama, Japan [8]	1994–1997	CAP	>15	1.4	-	-	No	2
Singapore, Singapore [9]	1995–1997	AE-COPD*	-	24.4	-	-	No	2
Ljubljana, Slovenia [10]	1996–1997	CAP	>15	1.9	-	-	No	3
Barcelona, Spain [11]	1996–2001	CAP	≥18	11.5	-	-	No	3
Beer-Sheva, Israel [12]	1997–1999	AE-COPD*	>40	15.8	-	-	No	2
Georgia, USA [13]	1997–1999	Febrile respiratory illness in military population*	≥17	8.5	8.5	-	No	2
Dalian, China [14]	1997–2000	CAP	15–91	16.5	18.0	14.5	No	3
Nottingham, UK [15]	1998–1999	CAP	≥16	20.8	-	19.6	No	3
Bochum, Germany [16]	1998–1999	AE-COPD*	≥18	22.4	-	-	Yes	3
Schiedam, Netherlands [17]	1998–1999	CAP	≥20	21.7	-	-	No	2
Alkmaar, Netherlands [18]	1998–2000	CAP	≥18	4.5	-	-	Yes	2
Buenos Aires, Argentina [19]	1998–2001	CAP	≥16	20.0	-	-	No	2
Nakasange, Japan [20]	1998–2000	CAP	≥65	7.1	-	7.1	No	2
Christchurch, New Zealand [21]	1999–2000	CAP	≥18	9.5	-	-	Yes	3
Turku, Finland [22]	1999–2004	CAP	≥16	7.8	-	-	No	2
Al-Adan, Kuwait [23]	2000–2001	CAP	≥15	10.5	-	-	No	2
Leiden, Netherlands [24]	2000–2002	CAP	≥18	9.8	-	-	Yes	1
Newcastle, Australia [25]	2000–2003	AE-COPD*	>45	17.8	-	-	Yes	3
Multiple Sites, Thailand [26]	2001–2002	Acute febrile illness	15–87	11.1	-	-	No	1
Utrecht, Netherlands [27]	2002–2004	LRTI	≥18	13.1	-	-	Yes	2
Santiago, Chile [28]	2003–2004	CAP	>14	6.9	-	-	No	3
Barcelona, Spain [29]	2003–2004	CAP	>14	8.1	-	-	Yes	2
Caen, France [30]	2003–2004	Intubation in ICU patients*	-	3.7	-	-	Yes	3
Cologne, Germany [31]	2003–2004	Atypical pneumonia in immunocompromised patients*	≥18	1.6	-	-	No	1
Melbourne, Australia [32]	2003–2005	AE-COPD*	≥49	2.0	-	-	Yes	3

Location	Years	Case definition	Age range	% Influenza positive, all ages	% Influenza positive, 18–64 years	% Influenza positive, ≥65 years	PCR testing	Quality Score [1]
Shenzhen, China [33]	2003–2005	Pneumonia	18–84	22.8	-	-	Yes	2
Stockholm, Sweden [34]	2004–2005	CAP	≥18	7.6	-	-	Yes	3
Hong Kong, Hong Kong [35]	2004–2005	AE-COPD with pneumonia*	-	6.7	-	-	Yes	0
Rome, Italy [36]	2004–2005	Pulmonary disease	-	10.0	-	-	Yes	2
Edmonton, Canada [37]	2004–2006	CAP	-	3.6	-	-	No	3
Puerto Montt, Chile [38]	2005–2006	Pneumonia	>15	6.3	-	-	No	1
St- Louis, USA [39]	2005–2006	Acute respiratory illness	-	2.8	-	-	Yes	2
Santiago, Chile [40]	2005–2007	CAP	≥18	7.8	-	-	Yes	1
Noumea, New Caledonia [41]	2006–2007	CAP	≥16	19.0	-	-	Yes	3
Chiang Mai, Thailand [42]	2006–2007	ACS with recent ILI*	-	12.5	-	-	No	0
Chiang Mai, Thailand [43]	2006–2008	CAP	≥16	5.9	-	-	Yes	2
Geneva, Switzerland [44]	2007–2008	AE-COPD*	-	2.3	-	-	Yes	2
Shenzhen, China [45]	2007–2008	Respiratory infection	16–89	17.3	18.2	15.8	Yes	1
Turin, Italy [46]	2008–2008	Fever and/or respiratory symptoms	≥16	0.6	-	-	No	3
Seoul, Korea [47]	2010–2011	AE-COPD*	-	3.2	-	-	Yes	1
Surakarta, Indonesia [48]	2010–2011	ILI, ARI, or SARI	-	13.8	-	-	Yes	1
Chicago/Nashville, USA [49]	2010–2012	CAP	≥18	5.8	-	-	Yes	2
Seoul, Korea [50]	2010–2012	AE-COPD, including pneumonia*	-	10.3	-	-	Yes	2
Kashmir, India [51]	2010–2012	AE-COPD*	≥40	8.0	-	-	Yes	3
Gansu, China [52]	2010–2013	LRTI	≥15	15.4	-	9.0	Yes	1
Haidlan/Beijing, China [53]	2010–2013	AE-asthma*	18–63	8.9	8.9	-	No	2
Georgia, USA [54]	2011–2012	Respiratory infection	≥22	1.3	-	-	Yes	1
Florence, Italy [55]	2011–2014	ARDS*	-	35.2	-	-	Yes	1
Huangshi/Hubei, China [56]	2011–2014	Respiratory illness	50–80	3.4	0.0	5.6	No	1
Bogota, Colombia [57]	2012–2012	SARI	≥18	30.8	-	-	Yes	3
Edinburgh, UK [58]	2012–2014	CAP	-	7.1	-	-	Yes	2
Multiple Sites, Egypt [59]	2012–2015	SARI	≥15	19.3	20.0	15.5	Yes	2
Damanhour, Egypt [60]	2013–2013	SARI	≥15	21.2	22.3	13.3	Yes	3
Mashhad, Iran [61]	2013–2014	CAP	≥16	4.2	-	-	Yes	1
Chengdu/Sichuan, China [62]	2013–2013	Respiratory illness	19–87	6.9	-	-	No	1
Foshan/Guangdong, China [63]	2013–2014	AE-COPD*	-	6.0	-	-	No	2
Chengdu/Sichuan, China [64]	2013–2014	Respiratory illness	>60	16.4	-	-	No	2
Beijing, China [65]	2013–2015	SARI	≥15	27.0	25.8	-	Yes	3
Haidlan/Beijing, China [66]	2013–2015	CAP	16–98	22.6	-	32.1	No	3

Location	Years	Case definition	Age range	% Influenza positive, all ages	% Influenza positive, 18–64 years	% Influenza positive, ≥65 years	PCR testing	Quality Score [1]
Urumchi/Xinjiang, China [67]	2013–2015	ALRI	18–84	14.2	-	-	No	2
Luzhou/Sichuan, China [68]	2014–2015	Respiratory illness	≥60	13.7	-	-	No	2
Chengdu/Sichuan, China [69]	2014–2015	Respiratory illness	≥16	20.6	21.5	18.6	No	2
Taizhou/Jiangsu, China [70]	2014–2015	FARI	-	11.3	-	-	Yes	1
Wuzhou/Guangxi, China [71]	2014–2015	ARI	15–93	2.7	3.0	2.6	No	2
Guangdong/Guangzhou, China [72]	2014–2015	SARI	≥20	19.4	21.3	14.3	Yes	1
Bozhou/Anhui, China [73]	2015–2016	AE-COPD*	25–94	75.3	-	-	No	2
Chaoyang/Beijing, China [74]	2015–2016	CAP	≥18	10.4	9.4	-	No	2
Urumchi/Xinjiang, China [75]	2015–2016	SARI	≥15	13.0	12.2	17.1	Yes	2
Fangshan/Beijing, China [76]	2015–2016	Influenza-related ICD-10 codes	≥20	8.6	6.0	8.8	Yes	2

\*Study on a specific special population.

Abbreviations: ACS, acute coronary syndrome; AE, acute exacerbation; ARDS, acute respiratory distress syndrome; ARI, acute respiratory infection; CAP, community-acquired pneumonia; COPD, chronic obstructive pulmonary disease; FARI, febrile acute respiratory infection; ICU, intensive care unit; ILI, influenza-like illness; LRTI; lower respiratory tract infection; SARI, severe acute respiratory infection

## References (S2 Table)

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