The Importance of Immunisation for All Ages

Immunisation for All Ages

One of the core ambitions for the *WHO Immunization Agenda 2030 (IA2030)* is to expand immunisation services beyond infancy to include the whole of the life course and ensure **"a world where everyone, everywhere, at every age, fully benefits from vaccines for good health and well-being".**[1]

The Immunisation for All Ages (IFAA) initiative calls for action in support of a life course approach to immunisation, and for national and international health and advocacy organisations and governments to:[2]

1 Prioritise immunisation throughout life as a key pillar of expanded prevention strategies and a central component of universal health coverage.

2 Remove barriers to access for appropriate immunisation throughout life to ensure all people are protected and no one is left behind.

3 Reduce inequities in timely, appropriate, and affordable access to immunisation throughout life.

Vaccine preventable respiratory diseases are a public health burden

Influenza

~1B
Annual influenza cases worldwide across all ages.[3]
**last estimated in 2019.*

~290-650K
Influenza related deaths per year.[4]

Respiratory syncytial virus (RSV)

~64M
Annual RSV respiratory tract infections caused worldwide across all ages.[5]
**last estimated in 2023.*

~160K
RSV related deaths globally per year.[6]

COVID-19

>750M
Cumulative COVID-19 cases have been reported since 2019.[7]
**across all ages, last estimated in 2024.*

>7M
Cumulative COVID-19 related deaths globally as of April 2024.[8]

S. pneumoniae

~98M
S. pneumoniae cases across all ages globally in 2021[9]

~505K
S. pneumoniae related deaths in 2021 globally.[9]

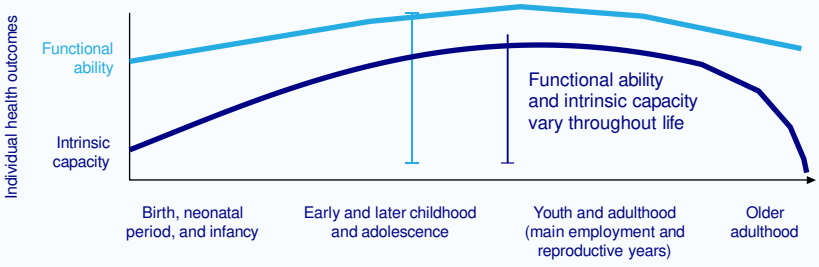
Health systems are managing the co-circulation of multiple infectious respiratory diseases, particularly in the winter.[10] These contribute to severe illness and high levels of hospitalisations in vulnerable populations every year putting additional pressure on already strained healthcare systems.[11,12,13,15]

Older adults and those with underlying medical conditions are at even a greater risk of serious or even life-threatening consequences of vaccine-preventable diseases (VPD).

AGE

With increasing age the likelihood of an adult having two or more chronic medical conditions increases.[15]

During the 2021/2022 winter season, **94%** of US adults who were hospitalised with flu-related complications had at least one underlying medical condition, such as diabetes, asthma, chronic obstructive pulmonary disease (COPD) and chronic heart disease.[16]



Conceptual framework for a life course approach to health[19]

Maintaining functional capacity is central to healthy ageing. Preventive medicine, including vaccination, can play a major role in preserving this.[17]

Vaccine-preventable diseases are a significant cause of morbidity and mortality in older people, and severe infections are associated with the loss of independence, function, and quality of life.[18]

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Vaccination is recognised as one of the most cost-effective ways of potentially reducing vaccine-preventable disease and helping to protect individuals.[20]

If the universal 75% influenza vaccination coverage target rate is achieved, it has been estimated that vaccination could potentially reduce the annual public health and economic burden in Europe by:[21]

- **31,400** hospitalisations[21]
- **14,300** deaths[21]
- **767,800** physician visits[21]
- **1,015,100** lost working days[21]

Targeting specific adult populations, such as older adults, those with chronic medical conditions, healthcare workers, and pregnant women, can help protect at-risk populations.[1,7,22]

Adult immunisation rates are lagging behind child immunisation rates worldwide.*[23]

	Adult Pneumococcal Vaccination Rates	Paediatric PCV-13 Pneumococcal Vaccination Rates
	44%	92%
	62%	88%
	18%	81%
	37%	81%
	60%	82%

Data from 2016 to 2019

Closing the immunisation gaps amongst healthcare workers may help to:[24]

1. Protect them from disease
2. Prevent the spread of disease
3. Ensure continuity of care and maintain an adequate workforce
4. Improve the overall effectiveness of healthcare systems

Strengthening maternal immunisation pathways has been recognised as a means of helping to protect new-born infants, from the day of birth, when they are most vulnerable to respiratory diseases, such as RSV, pertussis and influenza.[25,26]

Community pharmacies help build health system capacity to support increased immunisation uptake across the life course.

Over 320 million

COVID-19 vaccines had been **administered by pharmacists** around the world by November 2022.[27,28,29,30,31]

Pharmacists not only provide an accessible pathway for vaccination,[32] but are a feasible solution to building vaccination awareness and confidence.[33] As trusted healthcare professionals at the heart of communities, pharmacists are ideally placed to identify those who require vaccination and engage in conversations that encourage vaccine uptake and improve health literacy.[34,35]

To achieve the goals of IA2030, it is crucial to have strategies and plans of action to build and sustain comprehensive national immunisation programmes that are equitable across the lifecourse and all ages and strengthen health systems.

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The Importance of Immunisation for All Ages: A Spotlight on Pneumococcal diseases

Immunisation for All Ages

The Burden of Pneumococcal Pneumonia across the life course

Pneumococcal pneumonia is the most common type of bacterial pneumonia.[36] People of any age affected with this type of pneumonia, caused by *Streptococcus pneumoniae*, are at greater risk of severe respiratory disease and are estimated to be three times more likely to die than those with pneumonia from other causes.[36,37]

Each year, pneumococcal disease, which includes pneumococcal pneumonia, causes **1.6 million deaths globally.**[36]

1 million of these deaths occur in children, making pneumococcal disease one of the leading causes of vaccine-preventable deaths worldwide in children under five.[38,39]

Deaths from pneumococcal pneumonia among adults aged 70 and over have increased by 60% in the last two decades.[36]

Vaccination remains the primary and most effective preventative strategy for protecting people against pneumococcal disease.[36,40]

Children

Global pediatric immunisation programs using pneumococcal conjugate vaccines (PCVs) have significantly **reduced morbidity and mortality** from vaccine-serotype pneumococcal disease in children.[41]

From 2010 to 2019, PCV vaccines were estimated to have averted approximately **175.2 million cases of pneumococcal disease and prevented 624,904 deaths** in children under five.[42]

Older adults

Vaccinating eligible older adults with PCVs helps protect against pneumococcal pneumonia and invasive pneumococcal disease and is recommended by the CDC for **all adults aged ≥ 50 years**, as well as for those **aged 19-64 years with risk conditions** for pneumococcal disease**.** [43,44,45,46]

However, gaps in policy and program implementation were estimated to have significantly limited vaccine uptake among older adults, leaving them disproportionately affected by pneumococcal disease. [47]

As populations age, pneumococcal conjugate vaccination is a crucial step in helping to protect older adults.[47]

Globally, adult pneumococcal vaccination rates **significantly lag** behind childhood pneumococcal vaccination rates.[48,49]

Scaling up vaccination infrastructure and workforce: Expanding the scope of pharmacists

In Italy, a working paper was compiled to model the **potential expanded role of pharmacist vaccination** and found that the **time taken to reach the 75% coverage rate for pneumococcal vaccination in the over 65s could be just 3 years** with the support of community pharmacy.[50]

The socio-economic value of life course pneumococcal immunisation

Reduce hospitalisation and associated costs amongst patients with respiratory diseases:[52] Community-acquired pneumonia (CAP), which is often caused by *S.pneumoniae*, can intensify underlying conditions such as chronic obstructive pulmonary disease, asthma, and hypertension, can all increase the likelihood of significant cardiac events.[51,52] A 2020 U.S. study calculated that expenditure for CAP hospitalisation averaged $33,380 and $4,568 during the 30-day period thereafter.[53]

Vaccination is an important measure in the fight against anti-microbial resistance:[54] Pneumococcal vaccination could avoid an estimated 11.4 million days of antibiotic use per year in children under five, representing a reduction by 47% in days on antibiotics.[55] Meanwhile, PCV vaccination in individuals ≥65 years and older can also significantly reduce antibiotic prescriptions and curtail the circulation of resistant strains by lowering pathogen carriage and infections.[56]

Reducing productivity losses and the associated societal costs: Untreated pneumococcal disease incurs an estimated societal cost of $14.3 billion.[56] Investment in vaccination could lead to societal cost savings of $2.64 billion through productivity gains from reduced caregiving and reduced out-of-pocket expenditures.[56]

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References

1. WHO (2020). Immunization Agenda 2030: A Global Strategy to Leave No One Behind. Available at https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030. Accessed March 2025.
2. IFAA. The immunisation for All Ages Manifesto: Promoting immunization throughout life. Available at: https://ifa.ngo/wp-content/uploads/2021/04/IFAA-manifesto-2021.pdf. Accessed March 2025.
3. WHO (2019), WHO launches new global influenza strategy. Available at: https://www.who.int/news/item/11-03-2019-who-launches-new-global-influenza-strategy. Accessed March 2025.
4. WHO, 2019. WHO launches new global influenza strategy. Available at: https://www.who.int/news/item/11-03-2019-who-launches-new-global-influenza-strategy Accessed March 2025.
5. IAVI (2023), RSV vaccines: the latest success story. Available at: https://www.iavi.org/iavi-report/rsv-vaccines-the-latest-success-story#:~:text=Approximately%2064%20million%20people%20worldwide,very%20young%20and%20the%20elderly. Accessed March 2025.
6. National Institute of Allergy and Infectious Diseases (2022). Respiratory Syncytial Virus (RSV). https://www.niaid.nih.gov/diseases-conditions/respiratory-syncytial-virus-rsv#:~:text=In%20healthy%20people%2C%20symptoms%20of,who%20are%20over%20age%2065. Accessed March 2025.
7. WHO, (2024), WHO COVID-19 dashboard. Available at https://data.who.int/dashboards/covid19/cases?n=c. Accessed March 2025.
8. Our World In Data (2024), Coronavirus Cases. Available at https://ourworldindata.org/covid-cases. Accessed March 2025.
9. Global Burden of Disease Project, 2021, Lancet Infectious Disease, 2024, Supplementary Appendix 2. Available at https://www.lancet.com/gbd#:~:text=Published%20in%20May%202024%2C%20The,risk%20factors%20and%20population%20forecasting. Accessed March 2025.
10. European Centre for Disease Prevention and Control/WHO Regional Office for Europe. (2023) COVID-19 Bulletin, Joint ECDC–WHO weekly COVID-19 update, week 02/2023. Available at: https://worldhealthorg.shinyapps.io/euro-covid19/_w_1c723d1d/archive/ECDC-WHO-Regional-Office-for-Europe-COVID19-Bulletin-02-23-eng.pdf. Accessed March 2025.
11. Iuliano AD, Roguski KM, Chang HH, et al. Estimates of global seasonal influenza-associated respiratory mortality: a modelling study [published correction appears in Lancet. 2018 Jan 19;:]. Lancet. 2018;391(10127):1285-1300. doi:10.1016/S0140-6736(17)33293-2 Accessed March 2025.
12. van Staa TP, Palin V, Li Y, et al. The effectiveness of frequent antibiotic use in reducing the risk of infection-related hospital admissions: results from two large population-based cohorts. BMC Med. 2020;18(1):40. Published 2020 Mar 2. doi:10.1186/s12916-020-1504-5 Accessed March 2025.
13. World Health Organisation. (2023) WHO Coronavirus (COVID-19) Dashboard. Available at: https://covid19.who.int/ Accessed March 2025.
14. Every Breath Counts Coalition. (2022) Championing the fight against pneumonia. Available at: https://stoppneumonia.org/latest/world-pneumonia-day/. Accessed March 2025.
15. Nguyen H, Manolova G, Daskalopoulou C, Vitoratou S, Prince M, Prina AM. Prevalence of multimorbidity in community settings: A systematic review and meta-analysis of observational studies. J Comorb. 2019;9:2235042X19870934. Published 2019 Aug 22. doi:10.1177/2235042X19870934. Accessed March 2025.
16. National Foundation for Infectious Diseases. (2022) US Health Officials Urge Vaccination To Help Protect Against a Potentially Severe Flu Season. Available at: https://www.nfid.org/us-health-officials-urge-vaccination-to-help-protect-against-a-potentially-severe-flu-season/#:~:text=Leading%20health%20experts%20from%20NFID,the%20public%20to%20prioritize%20vaccination. Accessed March 2025.
17. Doherty, T.M., Connolly, M.P., Del Giudice, G. et al. Vaccination programs for older adults in an era of demographic change. Eur Geriatr Med 9, 289–300 (2018). https://doi.org/10.1007/s41999-18-0040-8. Accessed March 2025.
18. CDC (2022). Vaccine Information for Adults Vaccine Preventable Adult Diseases. Available at: https://www.cdc.gov/vaccines/adults/vpd.html. Accessed March 2025.
19. Kuruvilla S, Sadana R, Montesinos EV, Beard J, Vasdeki JF, Araujo de Carvalho I, Thomas RB, Drisse MB, Daelmans B, Goodman T, Koller T, Officer A, Vogel J, Valentine N, Wootton E, Banerjee A, Magar V, Neira M, Bele JMO, Worning AM, Bustreo F. A life-course approach to health: synergy with sustainable development goals. Bull World Health Organ. 2018 Jan 1;96(1):42-50. doi: 10.2471/BLT.17.198358. Epub 2017 Nov 23. PMID: 29403099; PMCID: PMC5791871. Accessed March 2025.
20. Rémy V, Zöllner Y, Heckmann U. Vaccination: the cornerstone of an efficient healthcare system. J Mark Access Health Policy. 2015;3:10.3402/jmahp.v3.27041. Published 2015 Aug 12. doi:10.3402/jmahp.v3.27041. Accessed March 2025.
21. Preaud E, Durand L, Macabeo B, Farkas N, Sloesen B, Palache A, Shupo F, Samson SI; Vaccines Europe influenza working group. Annual public health and economic benefits of seasonal influenza vaccination: a European estimate. BMC Public Health. 2014 Aug 7;14:813. doi: 10.1186/1471-2458-14-813. PMID: 25103091; PMCID: PMC4141103. Accessed March 2025.
22. FIP, (2019), FIP global vaccination advocacy toolkit Available at: FIP-VaccinationToolkit.pdf. Accessed March 2025.
23. Root-Bernstein R. Pneumococcal and Influenza Vaccination Rates and Pneumococcal Invasive Disease Rates Set Geographical and Ethnic Population Susceptibility to Serious COVID-19 Cases and Deaths. Vaccines (Basel). 2021;9(5):474. Accessed March 2025.
24. WFPHA (2023). POLICY STATEMENT Protecting the Healthcare Workforce in Low- and Middle-Income Countries through Vaccination. Institute of Global Health. University of Geneva, Campus Biotech - G6. Chemin des Mines 9, 1202 Geneva, Switzerland. Available at: www.wfpha.org. Accessed March 2025.
25. Gunatilaka A, Giles ML. Maternal RSV vaccine development. Where to from here?. Hum Vaccin Immunother. 2021;17(11):4542-4548. Accessed March 2025.
26. Rowe SL, Leder K, Perrett KP, et al. Maternal Vaccination and Infant Influenza and Pertussis. Pediatrics. 2021;148(3):e2021051076. Accessed March 2025.
27. CDC (2022). Vaccines and Immunizations. Available at: https://www.cdc.gov/vaccines/covid-19/retail-pharmacy-program/index.html. Accessed March 2025.
28. Canadian Pharmacists Association (2022). Pharmacy Appreciation Month – Celebrating the pharmacy teams who have helped carry us through the pandemic. Available at: https://www.pharmacists.ca/news-events/news/pharmacy-appreciation-month-celebrating-the-pharmacy-teams-who-have-helped-carry-us-through-the-pandemic/. Accessed March 2025.
29. The Pharmacy Guild of Australia (2022). New COVID-19 booster arrangements welcomed. Available at: https://www.guild.org.au/news-events/news/2022/new-covid-19-booster-arrangements-welcomed. March 2025.
30. PSNC (2022). Over 22 million COVID vaccines delivered by community pharmacy. Available at: https://psnc.org.uk/our-news/over-22-million-covid-vaccines-delivered-by-community-pharmacy/. Accessed March 2025.
31. L'Assurance Maladie (2022). Données vaccination par catégorie d'injecteur, hors centres de vaccination et établissements de santé. Available at: https://datavaccin-covid.ameli.fr/explore/dataset/donnees-de-vaccination-type-dinjecteur/information/. Accessed March 2025.
32. PGEU (2021). Flu vaccination 2021 – 2022: community pharmacists call to action. Available at: https://www.pgeu.eu/wp-content/uploads/2019/04/PGEU-Statement-on-Flu-Vaccination-2021-2022.pdf. Accessed March 2025.
33. International Pharmaceutical Federation (2021). Building vaccine confidence and communicating vaccine value - A toolkit for pharmacists. Available at: https://www.fip.org/file/5053. Accessed March 2025.
34. FIP (2019). Global vaccination advocacy toolkit. https://ipapharma.org/wp-content/uploads/2020/09/FIP-VaccinationToolkit.pdf. Accessed March 2025.
35. PGEU (2021). Position Paper on the Role of Community Pharmacists in COVID-19 - Lessons Learned from the Pandemic. https://www.pgeu.eu/wp-content/uploads/2020/03/PGEU-Position-Paper-on-on-the-Lessons-Learned-from-COVID-19-ONLINE.pdf. Accessed March 2025.
36. ILC UK (2023). Moving the margins: Improving adult pneumococcal vaccine uptake in marginalised groups. Available at https://ilcuk.org.uk/wp-content/uploads/2022/12/ILC-Moving-the-margins.pdf. Accessed March 2025.
37. Association, A. L. (n.d.). Pneumococcal Pneumonia. Www.lung.org. Retrieved January 18, 2024, from https://www.lung.org/lung-health-diseases/lung-disease-lookup/pneumonia/pneumococcal#:~:text=Pneumococcal%20pneumonia%20is%20a%20potentially. Accessed March 2025.
38. WHO (2024). Pneumococcal Disease. Available at https://www.who.int/teams/health-product-policy-and-standards/standards-and-specifications/vaccine-standardization/pneumococcal-disease
39. UNICEF (2020). Ending Preventable Child Deaths: How Britain Can Lead The Way. Available at: https://www.unicef.org.uk/wp-content/uploads/2020/01/Unicef-UK-Ending-Preventable-Child-Deaths_Report-2020.pdf Accessed March 2025.
40. Pneumococcal vaccine. (2019, July 31). Nhs.uk. https://www.nhs.uk/conditions/vaccinations/pneumococcal-vaccination/#:~:text=The%20pneumococcal%20vaccine%20helps%20protect. Accessed March 2025.
41. Rodgers, G. L., Whitney, C. G., & Klugman, K. P. (2021). Triumph of Pneumococcal Conjugate Vaccines: Overcoming a Common Foe. The Journal of Infectious Diseases, 224(Supplement_4), S352–S359. https://doi.org/10.1093/infdis/jiaa535. Accessed March 2025.
42. Chapman, R., Sutton, K., Dillon-Murphy, D., Patel, S., Hilton, B., Farkouh, R., & Wasserman, M. (2020). Ten year public health impact of 13-valent pneumococcal conjugate vaccination in infants: A modelling analysis. Vaccine, 38(45), 7138–7145. https://doi.org/10.1016/j.vaccine.2020.08.068. Accessed March 2025.
43. Hsiao et al, 2025. Effectiveness of 13-valent pneumococcal conjugate vaccine against vaccine-type invasive pneumococcal disease in older adults. Vaccine, Volume 44. https://doi.org/10.1016/j.vaccine.2024.12654. Accessed March 2025.
44. Farrar et al, 2023. Systemic Review and Meta-Analysis of the Efficacy and Effectiveness of Pneumococcal Vaccines in Adults. Pathogens. 2023 May 19;12(5):732. Accessed April 2025.
45. Bonten et al, 2015. Polysaccharide Conjugate Vaccine against Pneumococcal Pneumonia in Adults, N Engl J Med; 372:1114-1125. Accessed April 2025.
46. Kobayashi M, et al, 2025. Expanded Recommendations for Use of Pneumococcal Conjugate Vaccines Among Adults Aged >50 Years: Recommendations of the Advisory Committeeon Immunization Practices - United States, 2024. MMWR Morb Mortal Wkly Rep 2025;74:1-8. Accessed April 2025
47. Vaccines for Life, International Federation of Ageing, 2025. Driving Pneumococcal Vaccination Policy to Protect Older Canadians, National Policy Brief. Available at: https://www.vaccines4life.com/wp-content/uploads/2025/03/Updated-National-Policy-Brief-Driving-Pneumococcal-Vaccination-Policy-to-Protect-Older-Canadians.pdf. Accessed April 2025.
48. Root-Bernstein R. Pneumococcal and Influenza Vaccination Rates and Pneumococcal Invasive Disease Rates Set Geographical and Ethnic Population Susceptibility to Serious COVID-19 Cases and Deaths. Vaccines (Basel). 2021;9(5):474. Accessed March 2025.
49. WHO (2023). Pneumococcal vaccination coverage. Available at https://immunizationdata.who.int/pages/coverage/pcv.html?CODE=Global&ANTIGEN=PCV3&YEAR=
50. The European House Ambrosetti (2022). Pneumococcal vaccination in adults: impacts for the system Working Paper. Accessed March 2025.
51. Wyrwich KW, Yu H, Sato R, Strutton D, Powers JH. Community-acquired pneumonia: symptoms and burden of illness at diagnosis among US adults aged 50 years and older. Patient. [2013];6(2):125-134. Accessed March 2025.
52. Şimşek Veske N, Uslu Ö, Oruç Ö, Altın S, Yalnız E, Karakurt Z, Bolat E, Kul S, Kılınç O, Sayıner A. Does Pneumococcal Vaccination Have an Effect on Hospital Costs? Thorac Res Pract. 2023 May;24(3):165-169. doi: 10.5152/ThoracResPract.2023.22171. PMID: 37503619; PMCID: PMC10346092. Accessed March 2025.
53. Weycker, D., Moynahan, A., Silvia, A. et al. Attributable Cost of Adult Hospitalized Pneumonia Beyond the Acute Phase. PharmacoEconomics Open (2020). https://doi.org/10.1007/s41669-020-00240-9. Accessed March 2025.
54. P. Buchy et al. Impact of vaccines on antimicrobial resistance. International Journal of Infectious Diseases. 90 (2020) 188-196. Available at: https://www.ijidonline.com/article/S1201-9712(19)30397-2/fulltext Accessed March 2025.
55. Laxminarayan R et al (2016). Antimicrobials: access and sustainable effectiveness. Lancet 2016: 387: 168-75. Accessed March 2025.
56. Chen, C., Liceras, F. C., Flasche, S., Sidharta, S., Yoong, J., Sundaram, N., & Jit, M. (2019). Effect and cost-effectiveness of pneumococcal conjugate vaccination: a global modelling analysis. The Lancet Global Health, 7(1), e58–e67. https://doi.org/10.1016/S2214-109X(18)30422-4. Accessed March 2025.