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 per year.[6]

COVID-19

>750m
cumulative COVID-19 cases have been reported since 2019.[7]
**last estimated in 2024.*

>1.2m
COVID-19 related deaths in 2022.[8]

Pneumonia

~450m
Annual pneumonia cases across all ages.[9]
**last estimated in 2011.*

~2.5m
Pneumonia related deaths in 2019.[10]

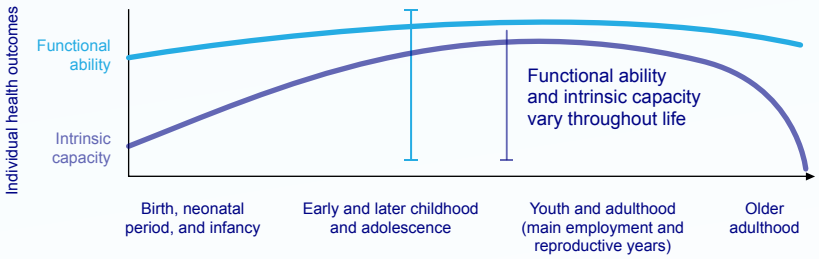
Health systems are managing the co-circulation of multiple infectious respiratory diseases, particularly in the winter.[11] These contribute to severe illness and high levels of hospitalisations in vulnerable populations every year putting additional pressure on already strained healthcare systems.[12,13,14,15]

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

AGE

With increasing age the likelihood of an adult having two or more chronic medical conditions increases.[16]

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.[17]



Conceptual framework for a life-course approach to health[20]

Maintaining functional capacity is central to healthy ageing. Preventive medicine, including vaccination, can play a major role in preserving this.[18]

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.[19]

The Immunisation for All Ages initiative is funded by Pfizer.

PP-UNP-GLB-2044 | August 2024

The Importance of Immunisation for All Ages

Vaccination is recognised as one of the most cost-effective ways of saving lives and promoting good health and wellbeing leading to significant societal and economic value.[21]

If the universal 75% influenza vaccination coverage target rate is achieved, vaccines could potentially reduce the public health and economic burden in Europe by an estimated:[22]

- **31,400** hospitalisations[22]
- **14,300** deaths[22]
- **767,800** physician visits[22]
- **1,015,100** working days lost annually[22]

Targeting specific adult populations, such as older adults, those with chronic medical conditions, healthcare workers, and pregnant women, can help protect at-risk populations.[1,7,23]

Adult immunisation rates are lagging behind child immunisation rates worldwide.[24]

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

*as of 2021

Closing the immunisation gaps amongst healthcare workers helps to:[25]

1. Protect their safety
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 from respiratory diseases, such as RSV, pertussis and influenza.[26,27]

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.[28,29,30,31,32]

Pharmacists not only provide an accessible pathway for vaccination,[33] but are a feasible solution to building vaccination awareness and confidence.[34] 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.[35,36]

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.

The Immunisation for All Ages initiative is funded by Pfizer.

PP-UNP-GLB-2044 | August 2024

The Importance of Immunisation for All Ages: A Spotlight on COVID-19

The need for ongoing vigilance against COVID-19

COVID-19 remains a threat to healthcare system stability at a critical time of rebuilding, particularly during autumn and winter seasons when co-circulating with other respiratory illnesses.[37]

During the 28-day period from 11 December 2023 to 7 January 2024, **over 1.1 million new COVID-19 cases** and **8,700 new deaths** associated with COVID-19 were reported globally.[38]

The importance of updated vaccination across broad populations to help protect health[39]

Pregnancy

COVID-19 infection in pregnancy places women at **higher risk of death and hospitalization** and can also lead to **pregnancy complications.** Women who receive additional COVID-19 doses are at **reduced risk** of severe symptoms or complications.[40,41,42,43]

At-risk Individuals of All Ages

Adults, adolescents, and children older than 6 months with immunocompromising conditions are at a **greater risk of severe** disease and death compared to healthy individuals.[44]

Healthcare Workers

When healthcare workers are vaccinated against COVID-19, they are **less likely to fall ill and be unable to work.**[45,46]

Older Adults

Years of life lost globally due to the pandemic are highest in ages 55-64, with a total of **over 90 million years of life lost** in this age group.[47]

The WHO recommends **vaccinating 100% of older adults and at-risk groups against COVID-19.** This includes immunocompromised individuals, pregnant women, and health care workers.[44] The WHO also recommended that these groups be offered **additional doses 6-12 months after their last vaccine,** depending on their level of risk.[44] Vaccination should always occur per local health authority recommendations.

Scaling up vaccination infrastructure and workforce

In 2021, pharmacists across the world made a significant contribution to the rollout of the COVID-19 vaccine with **29 countries** allowing pharmacists to vaccinate against COVID-19.[48] Pharmacist administered vaccination services have also been found to positively impact vaccination coverage rates.[49]

The broader value of providing a platform for appropriate life course COVID-19 immunisation[44,50]

COVID-19 vaccines can help prevent Long COVID by reducing the likelihood of contracting severe COVID-19:[50] Up to 24% of COVID-19 patients may suffer from Long COVID.[51] Additional long-term complications, such as increased cardiovascular risks, have also been observed up to 1 year after SARS-CoV-2 infection.[52,53,54]

Maximising adult vaccination helps to protect older adults and those with certain chronic diseases, who are not most at risk:[55,56] COVID-19 infection can accelerate functional decline in older adults and vulnerable populations.[57]

Reducing school absenteeism and ongoing threats to the education of children: COVID-19 continues to result in lost days of school, posing an ongoing threat to the education of children.[58,59]

The Immunisation for All Ages initiative is funded by Pfizer.

PP-UNP-GLB-2044 | August 2024

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 May 2024.
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 August 2022.
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 July 2023.
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 May 2023.
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 July 2023.
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 July 2023.
7. Our World in Data, (2023), Coronavirus Cases. Available at: https://ourworldindata.org/covid-cases. Accessed July 2023.
8. Our World in Data, (2023), Coronavirus Cases. Available at: https://ourworldindata.org/covid-cases. Accessed July 2023.
9. Ruuskanen, Olli et al. Viral Pneumonia, Lancet. 2011 337 (9773):1264-1275. Doi: https://doi.org/10.1016/S0140-6736(10)61459-6 Accessed July 2023.
10. Vaccines Work, (2022). Five charts on the growing pneumonia crisis. Available at: https://www.gavi.org/vaccineswork/every-death-counts-pneumonia-five-charts Accessed September 2023.
11. 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 April 2023.
12. 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 April 2023.
13. 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 April 2023.
14. World Health Organisation. (2023) WHO Coronavirus (COVID-19) Dashboard. Available at: https://covid19.who.int/ Accessed April 2023.
15. Every Breath Counts Coalition. (2022) Championing the fight against pneumonia. Available at: https://stoppneumonia.org/latest/world-pneumonia-day/. Accessed April 2023.
16. 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 May 2024.
17. 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-healthofficials-urge-vaccination-to-help-protect-against-a-potentially-severe-flu-season/#:~:text=Leading%20health%20experts%20from%20NFID,the%20public%20to%20prioritize%20vaccination. Accessed February 2023.
18. 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/s41999-018-0040-8. Accessed May 2024.
19. CDC (2022). Vaccine Information for Adults Vaccine Preventable Adult Diseases. Available at: https://www.cdc.gov/vaccines/adults/vpd.html. Accessed September 2023.
20. 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 May 2024.
21. 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 May 2024.
22. 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 May 2024.
23. FIP, (2019), FIP global vaccination advocacy toolkit Available at: FIP-VaccinationToolkit.pdf. Accessed February 2023.
24. 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 May 2024.
25. 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 February 2023.
26. Gunatilaka A, Giles ML. Maternal RSV vaccine development. Where to from here?. Hum Vaccin Immunother. 2021;17(11):4542-4548. Accessed May 2024.
27. Rowe SL, Leder K, Perrett KP, et al. Maternal Vaccination and Infant Influenza and Pertussis. Pediatrics. 2021;148(3):e2021051076. Accessed May 2024.
28. CDC (2022). Vaccines and Immunizations. Available at: https://www.cdc.gov/vaccines/covid-19/retail-pharmacy-program/index.html. Accessed July 2022.
29. 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 July 2022.
30. 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-arrangementswelcomed. Accessed July 2022.
31. 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 July 2022.
32. 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 July 2022.
33. 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-FluVaccination-2021-2022.pdf. Accessed February 2023.
34. International Pharmaceutical Federation (2021). Building vaccine confidence and communicating vaccine value - A toolkit for pharmacists. Available at: https://www.fip.org/file/5053. Accessed February 2023.
35. FIP (2019). Global vaccination advocacy toolkit. https://ipapharma.org/wp-content/uploads/2020/09/FIP-VaccinationToolkit.pdf. Accessed August 2022.
36. European CDC. 2023. Infection prevention and control for COVID-19 in healthcare settings. Available at: https://www.ecdc.europa.eu/sites/default/files/documents/Considerations%20for%20IPC%20respiratory%20viral%20infections%20in%20HC%20sett ings.pdf. Accessed December 2023.
37. Pollard A. 2022. It's not just Covid: the triple threat that could overwhelm the NHS this winter - Andrew Pollard — Oxford Vaccine Group. [online] Available at: https://www.ovg.ox.ac.uk/news/it2019s-not-just-covid-the-triple-threat-that-could-overwhelm-the-nhs-this-winter-andrew-pollard-1. Accessed May 2024.
38. WHO (2024). COVID-19 Epidemiological Update. Available at https://www.who.int/publications/m/item/covid-19-epidemiological-update---19-january-2024. Accessed May 2024.
39. World Health Organisation (2023). WHO SAGE Roadmap for prioritizing uses of COVID-19 vaccines. Available at https://www.who.int/publications/i/item/WHO-2019-nCoV-Vaccines-SAGE-Prioritization-2023.1. Accessed May 2024.
40. Holland C., Hammond C, Richmond MM. COVID-19 and Pregnancy: Risks and Outcomes. Nurse Womens Health. (2023);27(1). Available at doi: 10.1016/j.nwh.2022.11.004. Epub 2022 Dec 14. PMID: 36528073; PMCID: PMC9749909. Accessed May 2024.
41. Mahajan NN, Kesarwani S, Kumbhar P, Kuppusamy P, Pophalkar M, Thamke P, Asawa R, Sharan S, Mahale SD, Gajbhiye RK. Increased risk of early-onset preeclampsia in pregnant women with COVID-19. Hypertens Pregnancy. (2023);42(1). Available at doi: 10.1080/10641955.2023.2187630. PMID: 36891839. Accessed May 2024.
42. Zilver SJM, de Groot CJM, Grobben M, Remmelzwaal S, Burgers E, Velasco DN, Juncker HG, van Keulen BJ, van Goudoever JB, de Leeuw RA, van Gils MJ, Ris-Stalpers C, van Leeuwen E. Vaccination from the early second trimester onwards gives a robust SARS-CoV-2 antibody response throughout pregnancy and provides antibodies for the neonate. Int J Infect Dis. (2023);130. Available at doi: 10.1016/j.ijid.2023.02.022. Epub 2023 Mar 1. PMID: 36868302; PMCID: PMC9977072. Accessed May 2024.
43. Villar J, Soto Conti CP, Gunier RB, et al. Pregnancy outcomes and vaccine effectiveness during the period of omicron as the variant of concern, INTERCOVID-2022: a multinational, observational study. The Lancet. (20230;401(10375):447-457. Available at doi: 10.1016/S0140-6736(22)02467-9. Epub 2023 Jan 17. PMID: 36669520; PMCID: PMC9910845. Accessed May 2024.
44. World Health Organisation (2023). WHO SAGE Roadmap for prioritizing uses of COVID-19 vaccines. Available at https://www.who.int/publications/i/item/WHO-2019-nCoV-Vaccines-SAGERoadmap. Accessed May 2024.
45. Public Health England (2021). COVID-19 Vaccination: Guide for healthcare workers. Available at: https://www.gov.uk/government/publications/covid-19-vaccination-guide-for-healthcare-workers/covid-19-vaccination-guide-for-healthcare-workers. Accessed May 2024.
46. Maltezou et al (2021). COVID-19 vaccination significantly reduces morbidity and absenteeism among healthcare personnel: A prospective multicenter study. Available at: https://www.sciencedirect.com/science/article/pii/S0264410X21013876?via%3Dihub. Accessed May 2024.
47. World Health Organization. WHO World Health Statistics 2023. Available at: https://www.who.int/data/gho/publications/world-health-statistics. Accessed May 2024.
48. FIP, 2024. Leveraging pharmacy to deliver life-course vaccination. Available at: https://www.fip.org/file/5848. Accessed May 2024.
49. O' Reilly DJ, Blackhouse G, Burns S, et al. Economic analysis of pharmacist-administered influenza vaccines in Ontario, Canada. Clinicoecon Outcomes Res. 2018;10:655-663. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6207261/ . Accessed May 2024.
50. Ceban F, Kulzhabayeva D, Rodrigues NB, Di Vincenzo JD, Gill H, Subramaniapillai M, Lui LMW, Cao B, Mansur RB, Ho RC, Burke MJ, Rhee TG, Rosenblat JD, McIntyre RS. COVID-19 vaccination for the prevention and treatment of long COVID: A systematic review and meta-analysis. Brain Behav Immun. 2023 Jul;111:211-229. doi: 10.1016/j.bbi.2023.03.022. Epub 2023 Mar 27. Erratum in: Brain Behav Immun. 2023 Oct 7;: PMID: 36990297; PMCID: PMC10067136. Accessed May 2024.
51. Pfizer, Internal Document 2024. COVID-19 Engagement Deck v4_19Mar24_Imsci. Accessed May 2024.
52. Global Burden of Disease Long COVID Collaborators et. al, 2022. Estimated Global Proportions of Individuals With Persistent Fatigue, Cognitive, and Respiratory Symptom Clusters Following Symptomatic COVID-19 in 2020 and 2021. JAMA. 2022 Oct 25;328(16):1604-1615. doi: 10.1001/jama.2022.18931. Accessed May 2024.
53. Robertson MM, Qasmieh SA, Kulkarni SG, Teasdale CA, Jones HE, McNairy M, Borrell LN, Nash D. The Epidemiology of Long Coronavirus Disease in US Adults. Clin Infect Dis. 2023 May 3;76(9):1636-1645. doi: 10.1093/cid/ciac961. PMID: 36542514. Accessed May 2024.
54. Ayoubkhani & Bermingham et. al. 2022. Trajectory of long covid symptoms after covid-19 vaccination: community based cohort study. doi: https://doi.org/10.1136/bmj-2021-069676. Accessed May 2024.
55. US Centers for Disease Control and Prevention. 2024, People with Certain Medical Conditions. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html. Accessed May 2024.
56. European Centre for Disease Prevention and Control. Clinical features and sequelae. May, 2023. https://www.ecdc.europa.eu/en/infectious-disease-topics/z-disease-list/covid-19/facts/clinical-features-and-sequelae. Accessed May 2024.
57. Bae S, Malcolm MP, Nam S, Hong I. Association Between COVID-19 and Activities of Daily Living in Older Adults. OTJR (Thorofare N J). (2023) ;43(2). Available at doi: 10.1177/15394492221134911. Epub 2022 Nov 14. PMID: 36377234; PMCID: PMC9666414. Accessed May 2024.
58. UNICEF. COVID-19 and Children. 2023. https://data.unicef.org/covid-19-and-children/. Accessed May 2024.
59. Colosi, E. et al. Screening and vaccination against COVID-19 to minimize school closure." MedRxiv. 2021. doi: https://doi.org/10.1101/2021.08.15.21261243. Accessed May 2024.

The Immunisation for All Ages initiative is funded by Pfizer.

PP-UNP-GLB-2044 | August 2024