

DAFTAR PUSTAKA

- Adisasmito, W., Budayanti, S., Aisyah, D. N., Coker, R., Andayani, A. R., Smith, G. J. D., & Rudge, J. W. (2019). Surveillance and characterisation of influenza viruses among patients with influenza-like illness in Bali, Indonesia, July 2010-June 2014. *BMC Infectious Diseases*, 19(1). <https://doi.org/10.1186/s12879-019-3842-5>
- Barton, H., & Grant, M. (2006). A health map for the local human habitat. *Journal of The Royal Society for the Promotion of Health*, 126(6), 252–253. <https://doi.org/10.1177/1466424006070466>
- Bloom-Feshbach, K., Alonso, W. J., Charu, V., Tamerius, J., Simonsen, L., Miller, M. A., & Viboud, C. (2013a). Latitudinal Variations in Seasonal Activity of Influenza and Respiratory Syncytial Virus (RSV): A Global Comparative Review. In *PLoS ONE* (Vol. 8, Number 2). <https://doi.org/10.1371/journal.pone.0054445>
- Bloom-Feshbach, K., Alonso, W. J., Charu, V., Tamerius, J., Simonsen, L., Miller, M. A., & Viboud, C. (2013b). Latitudinal Variations in Seasonal Activity of Influenza and Respiratory Syncytial Virus (RSV): A Global Comparative Review. *PLoS ONE*, 8(2), e54445. <https://doi.org/10.1371/journal.pone.0054445>
- Butler, D. (2013, February 14). When Google got flu wrong. *Nature Communications*, 494.
- CDC. (2025a). *About RSV*. 2025. <https://www.cdc.gov/rsv/about/index.html#:~:text=About%20RSV%20,cases%2C%20a%20person%20may>
- CDC. (2025b). *Flu and People 65 Years and Older*. <https://www.cdc.gov/flu/highrisk/65over.htm>

- Chadha, M. S., Potdar, V. A., Saha, S., Koul, P. A., Broor, S., Dar, L., Chawla-Sarkar, M., Biswas, D., Gunasekaran, P., Abraham, A. M., Shrikhande, S., Jain, A., Anukumar, B., Lal, R. B., & Mishra, A. C. (2015). Dynamics of influenza seasonality at sub-regional levels in India and implications for vaccination timing. *PLoS ONE*, 10(5). <https://doi.org/10.1371/journal.pone.0124122>
- Chan, T. C., Fu, Y. C., & Hwang, J. S. (2015). Changing social contact patterns under tropical weather conditions relevant for the spread of infectious diseases. *Epidemiology and Infection*, 143(2), 440–451. <https://doi.org/10.1017/S0950268814000843>
- Chen, H., & Xiao, M. (2024). Seasonality of influenza-like illness and short-term forecasting model in Chongqing from 2010 to 2022. *BMC Infectious Diseases*, 24(1). <https://doi.org/10.1186/s12879-024-09301-4>
- Chivé, C., Martín-Faivre, L., Eon-Bertho, A., Alwardini, C., Degrouard, J., Albinet, A., Noyalet, G., Chevaillier, S., Maisonneuve, F., Sallenave, J. M., Devineau, S., Michoud, V., Garcia-Verdugo, I., & Baeza-Squiban, A. (2024). Exposure to PM2.5 modulate the pro-inflammatory and interferon responses against influenza virus infection in a human 3D bronchial epithelium model. *Environmental Pollution*, 348. <https://doi.org/10.1016/j.envpol.2024.123781>
- Choi, S. B., & Ahn, I. (2020). Forecasting seasonal influenza-like illness in South Korea after 2 and 30 weeks using Google Trends and influenza data from Argentina. *PLoS ONE*, 15(7 July). <https://doi.org/10.1371/journal.pone.0233855>
- Copeland, P., Romano, R., Zhang, T., Hecht, G., Zigmond, D., & Stefansen, C. (2013). Google Disease Trends: an Update. *Nature Communications*, 457, 1012.

- Dewi Puspa, K., Nur, K., Pangesti, A., & Setiawaty, V. (2015). *Effects of climate change on the distribution of influenza virus in Indonesia in 2012-2013*.
- Dormann, C. F., Elith, J., Bacher, S., Buchmann, C., Carl, G., Carré, G., Marquéz, J. R. G., Gruber, B., Lafourcade, B., Leitão, P. J., Münkemüller, T., McClean, C., Osborne, P. E., Reineking, B., Schröder, B., Skidmore, A. K., Zurell, D., & Lautenbach, S. (2013). Collinearity: A review of methods to deal with it and a simulation study evaluating their performance. *Ecography*, 36(1), 27–46. <https://doi.org/10.1111/j.1600-0587.2012.07348.x>
- Dowell, S. F. (2012). Seasonality - Still confusing. In *Epidemiology and Infection* (Vol. 140, Number 1, pp. 87–90). <https://doi.org/10.1017/S0950268811001695>
- Feng, C., Li, J., Sun, W., Zhang, Y., & Wang, Q. (2016). Impact of ambient fine particulate matter (PM_{2.5}) exposure on the risk of influenza-like-illness: A time-series analysis in Beijing, China. *Environmental Health: A Global Access Science Source*, 15(1). <https://doi.org/10.1186/s12940-016-0115-2>
- Fischer, W. A., Gong, M., Bhagwanjee, S., & Sevransky, J. (2014). Global burden of influenza as a cause of cardiopulmonary morbidity and mortality. In *Global Heart* (Vol. 9, Number 3, pp. 325–336). Elsevier B.V. <https://doi.org/10.1016/j.gheart.2014.08.004>
- Gryparis, A., Paciorek, C. J., Zeka, A., Schwartz, J., & Coull, B. A. (2009). Measurement error caused by spatial misalignment in environmental epidemiology. *Biostatistics*, 10(2), 258–274. <https://doi.org/10.1093/biostatistics/kxn033>
- Gupta, N., Praharaj, I., Bhatnagar, T., Vivian Thangaraj, J. W., Giri, S., Chauhan, H., Kulkarni, S., Murhekar, M., Singh, S., Gangakhedkar, R. R., & Bhargava, B. (2020). Severe acute respiratory illness surveillance for coronavirus disease

2019, India, 2020. *Indian Journal of Medical Research*, 151(2–3), 236–240.
https://doi.org/10.4103/ijmr.IJMR_1035_20

Harrell, F. E. (2015). *Regression Modeling Strategies With Applications to Linear Models, Logistic and Ordinal Regression, and Survival Analysis Second Edition Springer Series in Statistics* (Second). Springer International Publishing. <http://www.springer.com/series/692>

Haryanto, B., Jalaludin, B., Asyary, A., Roestand, N., & Nugraha, F. (2025). Associations Between Ambient PM2.5 Levels and Children's Pneumonia and Asthma During the COVID-19 Pandemic in Greater Jakarta (Jabodetabek). *Annals of Global Health*, 91(1), 10. <https://doi.org/10.5334/aogh.4623>

Hyndman, R. J. (2007). *Minimum Sample Size Requirements for Seasonal Forecasting Models*. <https://www.researchgate.net/publication/5055549>

Ito, G., Takazono, T., Hosogaya, N., Iwanaga, N., Miyazawa, S., Fujita, S., Watanabe, H., & Mukae, H. (2023). Impact of meteorological and demographic factors on the influenza epidemic in Japan: a large observational database study. *Scientific Reports*, 13(1). <https://doi.org/10.1038/s41598-023-39617-1>

Kemkes RI. (2024). *Pneumonia Terus Ancam Anak-anak*. <https://kemkes.go.id/id/pneumonia-terus-ancam-anak-anak#:~:text=Plt%20Dirjen%20Pencegahan%20dan%20Pengendalian,terbesar%20pada%20balita%20di%20Indonesia>

Kementerian Kesehatan Republik Indonesia. (2023a). *Petunjuk Teknis Surveilans ILI (Influenza-Like Illness)*.

Kementerian Kesehatan Republik Indonesia. (2023b). *Petunjuk Teknis Surveilans SARI (Severe Acute Respiratory Infection)*.

- Kosasih, H., Roselinda, Nurhayati, Klimov, A., Xiyan, X., Lindstrom, S., Mahoney, F., Beckett, C., Burgess, T. H., Blair, P. J., Uyeki, T. M., & Sedyaningsih, E. R. (2013). Surveillance of Influenza in Indonesia, 2003-2007. *Influenza and Other Respiratory Viruses*, 7(3), 312–320. <https://doi.org/10.1111/j.1750-2659.2012.00403.x>
- Lopez, V. K., Cramer, E. Y., Pagano, R., Drake, J. M., O'Dea, E. B., Adey, M., Ayer, T., Chhatwal, J., Dalgic, O. O., Ladd, M. A., Linas, B. P., Mueller, P. P., Xiao, J., Bracher, J., Castro Rivadeneira, A. J., Gerding, A., Gneiting, T., Huang, Y., Jayawardena, D., ... Johansson, M. A. (2024). Challenges of COVID-19 Case Forecasting in the US, 2020–2021. *PLoS Computational Biology*, 20(5 May). <https://doi.org/10.1371/journal.pcbi.1011200>
- Lowen, A. C., Mubareka, S., Steel, J., & Palese, P. (2008). *Influenza Virus Transmission Is Dependent on Relative Humidity and Temperature*. <https://doi.org/10.1371/journal.ppat.0030151.g001>
- Lowen, A. C., & Steel, J. (2014). Roles of Humidity and Temperature in Shaping Influenza Seasonality. *Journal of Virology*, 88(14), 7692–7695. <https://doi.org/10.1128/jvi.03544-13>
- Mailepessov, D., Aik, J., & Seow, W. J. (2021). A time series analysis of the short-term association between climatic variables and acute respiratory infections in Singapore. *International Journal of Hygiene and Environmental Health*, 234. <https://doi.org/10.1016/j.ijheh.2021.113748>
- Mandl, K. D., Overhage, J. M., Wagner, M. M., Lober, W. B., Sebastiani, P., Mostashari, F., Pavlin, J. A., Gesteland, P. H., Treadwell, T., Koski, E., Hutwagner, L., Buckeridge, D. L., Aller, R. D., & Grannis, S. (2004). Implementing Syndromic Surveillance: A Practical Guide Informed by the Early Experience. *Journal of the American Medical Informatics Association*, 11(2), 141–150. <https://doi.org/10.1197/jamia.M1356>

- Marbus, S. D., Groeneveld, G. H., Van Asten, L., Van Der Hoek, W., De Lange, M. M. A., Donker, G. A., Schneeberger, P. M., Van Dissel, J. T., & Van Gageldonk-Lafeber, A. B. (2020). *Severe acute respiratory infections surveillance for early signals in the community*.
- Mathis, S. M., Webber, A. E., León, T. M., Murray, E. L., Sun, M., White, L. A., Brooks, L. C., Green, A., Hu, A. J., Rosenfeld, R., Shemetov, D., Tibshirani, R. J., McDonald, D. J., Kandula, S., Pei, S., Yaari, R., Yamana, T. K., Shaman, J., Agarwal, P., ... Borchering, R. K. (2024). Title evaluation of FluSight influenza forecasting in the 2021–22 and 2022–23 seasons with a new target laboratory-confirmed influenza hospitalizations. *Nature Communications*, 15(1). <https://doi.org/10.1038/s41467-024-50601-9>
- Mavragani, A., & Ochoa, G. (2019). Google trends in infodemiology and infoveillance: Methodology framework. In *JMIR Public Health and Surveillance* (Vol. 5, Number 2). JMIR Publications Inc. <https://doi.org/10.2196/13439>
- Meckawy, R., Stuckler, D., Mehta, A., Al-Ahdal, T., & Doebbeling, B. N. (2022). Effectiveness of early warning systems in the detection of infectious diseases outbreaks: a systematic review. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-14625-4>
- Murray, E. L., Klein, M., Brondi, L., McGowan, J. E., Van Mels, C., Brooks, W. A., Kleinbaum, D., Goswami, D., Ryan, P. B., & Bridges, C. B. (2012). Rainfall, household crowding, and acute respiratory infections in the tropics. *Epidemiology and Infection*, 140(1), 78–86. <https://doi.org/10.1017/S0950268811000252>
- Neumann, G., & Kawaoka, Y. (2022). Seasonality of influenza and other respiratory viruses. *EMBO Molecular Medicine*, 14(4). <https://doi.org/10.15252/emmm.202115352>

- Ng, S., & Gordon, A. (2015). Influenza Burden and Transmission in the Tropics. *Current Epidemiology Reports*, 2(2), 89–100. <https://doi.org/10.1007/s40471-015-0038-4>
- N’gattia, A. K., Coulibaly, D., Cherif, D., Kadjo, H., & Tiembré, I. (2014). Transmission Dynamics of Seasonal Influenza in Abidjan: Epidemiology and Modeling. *ISDS 2014 Conference Abstracts*. <http://ojphi.org>
- N’Gattia, A. K., Coulibaly, D., Nzussouo, N. T., Kadjo, H. A., Chérif, D., Traoré, Y., Kouakou, B. K., Kouassi, P. D., Ekra, K. D., Dagnan, N. S., Williams, T., & Tiembré, I. (2016). Effects of climatological parameters in modeling and forecasting seasonal influenza transmission in Abidjan, Cote D’Ivoire. *BMC Public Health*, 16(1). <https://doi.org/10.1186/s12889-016-3503-1>
- Pan American Health Organization. (2014). *Operational Guidelines for Sentinel Severe Acute Respiratory Infection (SARI) Surveillance*.
- Pan, H., Liu, J., Li, F., Wang, W., Huang, X., Li, H., Yang, X., & Chen, X. (2025). Improving influenza prediction in Quanzhou, China: an ARIMAX model integrated with meteorological drivers. *Frontiers in Public Health*, 13. <https://doi.org/10.3389/fpubh.2025.1662775>
- Parenteau, M. P., & Sawada, M. C. (2011). The modifiable areal unit problem (MAUP) in the relationship between exposure to NO₂ and respiratory health. *International Journal of Health Geographics*, 10. <https://doi.org/10.1186/1476-072X-10-58>
- Reich, N. G., McGowan, C. J., Yamana, T. K., Tushar, A., Ray, E. L., Osthus, D., Kandula, S., Brooks, L. C., Crawford-Crudell, W., Gibson, G. C., Moore, E., Silva, R., Biggerstaff, M., Johansson, M. A., Rosenfeld, R., & Shaman, J. (2019). Accuracy of real-time multi-model ensemble forecasts for seasonal influenza in the U.S. *PLoS Computational Biology*, 15(11). <https://doi.org/10.1371/journal.pcbi.1007486>

- Robert H. Shumway, & David S. Stoffer. (2011). *Time Series Analysis and Its Applications with R Examples*. www.springer.com/series/417
- Sagripanti, J.-L., & David Lytle, C. (2007). Inactivation of Influenza Virus by Solar Radiation. *Photochemistry and Photobiology*, 83, 1278–1282. <https://doi.org/10.1111>
- Santos, D. A. da S., de Azevedo, P. V., de Olinda, R. A., dos Santos, C. A. C., de Souza, A., Sette, D. M., & de Souza, P. M. (2017). A relação das variáveis climáticas na prevalência de infecção respiratória aguda em crianças menores de dois anos em Rondonópolis-MT, Brasil. *Ciencia e Saude Coletiva*, 22(11), 3711–3721. <https://doi.org/10.1590/1413-812320172211.28322015>
- Schuit, M., Gardner, S., Wood, S., Bower, K., Williams, G., Freeburger, D., & Dabisch, P. (2021). The influence of simulated sunlight on the inactivation of influenza virus in aerosols. *Journal of Infectious Diseases*, 221(3), 372–378. <https://doi.org/10.1093/INFDIS/JIZ582>
- Shaman, J., & Kohn, M. (2009). Absolute humidity modulates influenza survival, transmission, and seasonality. In *PNAS March* (Vol. 3, Number 9). www.pnas.org/cgi/doi/10.1073/pnas.0806852106
- Shaman, J., Pitzer, V. E., Viboud, C., Grenfell, B. T., & Lipsitch, M. (2010). Absolute humidity and the seasonal onset of influenza in the continental United States. *PLoS Biology*, 8(2). <https://doi.org/10.1371/journal.pbio.1000316>
- Shek, L. P.-C., & Lee, B.-W. (2003). Epidemiology and seasonality of respiratory tract virus infections in the tropics. *Paediatric Respiratory Reviews*, 4(2), 105–111. [https://doi.org/10.1016/S1526-0542\(03\)00024-1](https://doi.org/10.1016/S1526-0542(03)00024-1)
- Shih, D. H., Wu, Y. H., Wu, T. W., Chang, S. C., & Shih, M. H. (2024). Infodemiology of Influenza-like Illness: Utilizing Google Trends' Big Data

for Epidemic Surveillance. *Journal of Clinical Medicine*, 13(7).
<https://doi.org/10.3390/jcm13071946>

Simon, A. K., Hollander, G. A., & McMichael, A. (2015). Evolution of the immune system in humans from infancy to old age. In *Proceedings of the Royal Society B: Biological Sciences* (Vol. 282, Number 1821). Royal Society of London.
<https://doi.org/10.1098/rspb.2014.3085>

Slusky, D. J. G., & Zeckhauser, R. J. (2021). Sunlight and Protection Against Influenza. *Economics and Human Biology*, 40.
<https://doi.org/10.1016/j.ehb.2020.100942>

Soebiyanto, R. P., Adimi, F., & Kiang, R. K. (2010). Modeling and predicting seasonal influenza transmission in warm regions using climatological parameters. *PLoS ONE*, 5(3). <https://doi.org/10.1371/journal.pone.0009450>

Soebiyanto, R. P., Clara, W. A., Jara, J., Balmaseda, A., Lara, J., Moya, M. L., Palekar, R., Widdowson, M. A., Azziz-Baumgartner, E., & Kiang, R. K. (2015). Associations between seasonal influenza and meteorological parameters in Costa Rica, Honduras and Nicaragua. *Geospatial Health*, 10(2), 144–151. <https://doi.org/10.4081/gh.2015.372>

Susilarini, N. K., Haryanto, E., Praptiningsih, C. Y., Mangiri, A., Kipuw, N., Tarya, I., Rusli, R., Sumardi, G., Widuri, E., Sembiring, M. M., Noviyanti, W., Widaningrum, C., Lafond, K. E., Samaan, G., & Setiawaty, V. (2018). Estimated incidence of influenza-associated severe acute respiratory infections in Indonesia, 2013-2016. *Influenza and Other Respiratory Viruses*, 12(1), 81–87. <https://doi.org/10.1111/irv.12496>

Tamerius, J. D., Shaman, J., Alonso, W. J., Bloom-Feshbach, K., Uejio, C. K., Comrie, A., & Viboud, C. (2013a). Environmental Predictors of Seasonal Influenza Epidemics across Temperate and Tropical Climates. *PLoS Pathogens*, 9(3). <https://doi.org/10.1371/journal.ppat.1003194>

- Tamerius, J. D., Shaman, J., Alonso, W. J., Bloom-Feshbach, K., Uejio, C. K., Comrie, A., & Viboud, C. (2013b). Environmental Predictors of Seasonal Influenza Epidemics across Temperate and Tropical Climates. *PLoS Pathogens*, 9(3), e1003194. <https://doi.org/10.1371/journal.ppat.1003194>
- Tamerius, J., Nelson, M. I., Zhou, S. Z., Viboud, C., Miller, M. A., & Alonso, W. J. (2011a). Global influenza seasonality: Reconciling patterns across temperate and tropical regions. In *Environmental Health Perspectives* (Vol. 119, Number 4, pp. 439–445). <https://doi.org/10.1289/ehp.1002383>
- Tamerius, J., Nelson, M. I., Zhou, S. Z., Viboud, C., Miller, M. A., & Alonso, W. J. (2011b). Global Influenza Seasonality: Reconciling Patterns across Temperate and Tropical Regions. *Environmental Health Perspectives*, 119(4), 439–445. <https://doi.org/10.1289/ehp.1002383>
- Tellier, R. (2006). Review of Aerosol Transmission of Influenza A Virus. In *Emerging Infectious Disease CDC*. www.cdc.gov/eid
- Tempia, S., Walaza, S., Moyes, J., Cohen, A. L., Von Mollendorf, C., Treurnicht, F. K., Venter, M., Pretorius, M., Hellferscee, O., Mtshali, S., Seleka, M., Tshangela, A., Nguweneza, A., McAnerney, J. M., Wolter, N., Von Gottberg, A., Dawood, H., Variava, E., Madhi, S. A., & Cohen, C. (2017). Risk factors for influenza-associated severe acute respiratory illness hospitalization in South Africa, 2012-2015. *Open Forum Infectious Diseases*, 4(1). <https://doi.org/10.1093/ofid/ofw262>
- Tim Kerja ISPA, D. P. K. R. (2025). *Dashboard Surveilans ILI-SARI dan COVID-19*. <https://sites.google.com/view/surveilans-ili-sari/beranda>
- Tsan, Y.-T., Chen, D.-Y., Liu, P.-Y., Kristiani, E., Lan, K., Nguyen, P., & Yang, C.-T. (2022). The Prediction of Influenza-like Illness and Respiratory Disease Using LSTM and ARIMA. *J. Environ. Res. Public Health*, 19, 1858. <https://doi.org/10.3390/ijerph>

- Wakefield, J., & Lyons, H. (2010). Spatial Aggregation and the Ecological Fallacy. In *Handbook of Spatial Statistics* (pp. 541–558). <https://doi.org/10.1201/9781420072884-c30>
- wei, S., Lin, S., wenjing, Z., Shaoxia, S., Yuejie, Y., Yujie, H., Shu, Z., Zhong, L., & Ti, L. (2024). The prediction of influenza-like illness using national influenza surveillance data and Baidu query data. *BMC Public Health*, 24(1). <https://doi.org/10.1186/s12889-024-17978-0>
- World Health Organization. (2014, January). *Global Influenza Programme: WHO surveillance case definitions for ILI and SARI*. <https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/case-definitions-for-ili-and-sari>
- World Health Organization. (2025a). *Global Influenza Surveillance and Response System (GISRS)*. <https://www.who.int/initiatives/global-influenza-surveillance-and-response-system>
- World Health Organization. (2025b). *Respiratory syncytial virus*. https://www.who.int/health-topics/respiratory-syncytial-virus#tab=tab_1
- World Health Organization. (2025c, February 28). *Influenza (seasonal)*. [https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal))
- World Health Organization. (2025d, March 25). *Expanding the Global Influenza Surveillance and Response System to include other respiratory viruses with epidemic or pandemic potential*.
- World Health Organization South East Asia Region Office. (2024). *The Joint National and International Surveillance Review of Influenza-Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) Sentinel Surveillance in Indonesia*. <https://www.who.int/southeastasia/news/detail/02-08-2024-jnais-review-ili-sari>

- Wu, K.-J., Wu, X.-Q., & Hong, L. (2023). Atmospheric environment and severe acute respiratory infections in Nanjing, China, 2018–2019. *International Journal of Environmental Health Research*, 33(5), 441–451. <https://doi.org/10.1080/09603123.2022.2034757>
- Yang, W., & Marr, L. C. (2011). Dynamics of Airborne influenza A viruses indoors and dependence on humidity. *PLoS ONE*, 6(6). <https://doi.org/10.1371/journal.pone.0021481>
- Yuan, J., & Li, D. (2021). Epidemiological and clinical characteristics of influenza patients in respiratory department under the prediction of autoregressive integrated moving average model. *Results in Physics*, 24. <https://doi.org/10.1016/j.rinp.2021.104070>
- Zhang, S., Sun, Z., He, J., Li, Z., Han, L., Shang, J., & Hao, Y. (2022). The influences of the East Asian Monsoon on the spatio-temporal pattern of seasonal influenza activity in China. *Science of the Total Environment*, 843. <https://doi.org/10.1016/j.scitotenv.2022.157024>