



PPE PREPAREDNESS

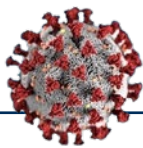
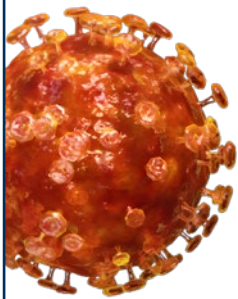
ARE YOU PREPARED FOR AN
INFECTIOUS DISEASE OUTBREAK?



INFECTIOUS DISEASE OUTBREAKS ARE A GROWING WORLDWIDE PROBLEM

As recent years have shown, it's difficult to predict when a pandemic or widespread infectious disease outbreak will occur. The best strategy for any healthcare facility is to be prepared by stockpiling critical Personal Protective Equipment (PPE) to ensure an adequate supply from day one of the outbreak.

GREATER EXPOSURE MEANS GREATER RISK. HOW CAN YOU ENHANCE THE PROTECTION OF YOUR STAFF AND PATIENTS?



When an outbreak occurs, your facility must be ready to respond with enough PPE to continue to function at optimal levels, while the healthcare industry as a whole adjusts to increased demand.

A carefully planned stockpile of PPE and other essentials is key to effective infectious disease preparedness.

Consider the impact to your facility if the following were to occur:

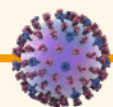
- A surge of patients admitted to Emergency, leading to increased usage of PPE by staff in direct contact with patients, or indirect staff such as pathology lab personnel
- Increased potential risk to hospital staff and visitors.
- Closed or restricted regional borders resulting in disruption of continuous PPE supply

TIMELINE OF OUTBREAKS AND PANDEMICS

H1N1 Pandemic

- First confirmed H1N1 case in Europe: Spain, April 2009¹
- EU reported ~2,900 deaths directly linked to H1N1²
- Median age of deaths: 37 years (vs. 76 for seasonal flu)³

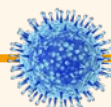
2009



Asian Lineage Avian Influenza A (H7N9)

- Human infection first reported in China (2013)⁵
- Sporadic cases triggered annual epidemics in China⁶
- Death rate ~39%; CDC notes its pandemic potential⁷

2014



2011

Swine H3N2v (variant) Influenza Virus

- First human H3N2v cases: July 2011, USA (after detection in pigs in 2010)⁴

EBOLA Virus Disease (EVD)

- Without treatment, up to 90% of Ebola virus cases are fatal⁸
- 11,372 reported deaths⁸
- West Africa outbreak spread across borders within weeks, becoming a global epidemic⁹
- No vaccine or treatment during this period¹⁰

INFECTIOUS DISEASE OUTBREAKS BE PREPARED



OSHA¹⁸ highlights stockpiling as a key strategy for readiness during large-scale infectious disease events.

Stockpile



Those who work closely with people known or suspected to be infected with pandemic influenza should wear:

- **Respirators and face masks** to be protected against small droplets from talking, coughing, sneezing and from small airborne particles of infectious material
- **Eye protection** or face shields if splashes are anticipated
- **Medical/surgical gowns** or other disposable/decontaminable protective clothing
- **Gloves** to reduce transfer of infectious

Forecasting



The duration of PPE stockpiling depends on the type and severity of the outbreak, typically ranging from 6 to 24 weeks¹⁸. Accurate forecasting and planning of PPE requirements are essential to support sustained hospital demand during intensified healthcare emergencies.



TIMELINE OF OUTBREAKS AND PANDEMICS

Middle Respiratory Syndrome Coronavirus (MERS-COV Virus)

- Outbreak in South Korea (2015): 186 cases, 38 deaths¹¹
- 27 countries reported cases since 2012, 84% in Saudi Arabia¹²
- CDC warned about global spread risk¹³

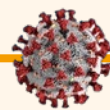
2015



Covid-19 (SARS-CoV-2)

- COVID-19 lead to severe complications, in older adults and those with underlying health conditions.
- WHO European Region: Total cases: 278,300,338; Total deaths: 2,260,650¹⁶
- Caused by SARS-CoV-2, spread primarily by respiratory droplets¹⁷

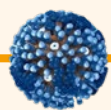
2020



2017

Severe Seasonal Influenza

- 2017–2018: 152,000 attributable excess deaths in Europe¹⁴
- The majority of severe cases occurred in people aged over 39 years¹⁵



Are you prepared for the next outbreak?

Infectious diseases outbreaks happen every few years, **hospitals must be ready.**

INFECTIOUS DISEASE OUTBREAKS

HALYARD PPE STOCKPILE CALCULATOR

We have made it easy for you to determine your PPE stockpiling needs. When calculating your stockpile requirements, be sure to include all expected increases in usage consistent with your facility’s infection control protocol for a seasonal influenza or pandemic influenza event. This may involve special populations such as healthcare workers who do not normally use face masks or other PPE, visitors, and pediatric patients who require special sizes of PPE.

Estimate Your PPE Stockpile Needs Below:

Product Category	A ENTER Current Annual Usage (Cases)	B ADD Pandemic Usage Increase (Cases)	C TOTAL Usage (Cases) (A+B)	D CALCULATE Average Weekly Usage (Cases) (C/52)	E DETERMINE Average of Weeks to Stockpile (Ex. 6, 8, 12)	F CALCULATE Resulting Stockpile Usage (Cases)
N95 Respirators						
Face Masks - Fluid Resistant						
Procedure Masks (For Patients)						
Eyewear						
Isolation/Cover Gowns						
Exam Gloves						

THE BENEFITS OF BEING PREPARED

By having enough PPE on hand to support your facility’s needs from the beginning of an infectious disease outbreak, you will help protect your employees and help keep them on the job; you will give your employees the confidence they need to perform at the highest levels of effectiveness and efficiency; and you will do your part to prevent the further spread of infection to patients, visitors, and staff. You can count on us at Halyard to do our part in preparing to meet your needs during a pandemic event or infectious disease outbreak. We invest in proximate production capacity and work with our raw material suppliers and distributor partners to be able to meet current and future increased demand, with limited interruptions to our customers. For more information on how Halyard can help you prepare for an influenza pandemic or seasonal outbreak, please visit www.halyardhealth.eu or contact your Halyard representative.



A RANGE OF PPE SOLUTIONS FOR STAFF AND PATIENT PROTECTION



PARTICLE FILTERING RESPIRATORS

Code	Description	Packaging
62408	FFP2 NR FILTERING HALF MASK AND FLUIDSHIELD* 3 SURGICAL RESPIRATOR, YELLOW	300 eaches/case
46727*	FLUIDSHIELD* PFR95* N95 Particulate Filter Respirator and Surgical Mask, Pouch-Style, Polyurethane Headbands, Regular Size, Orange	210 eaches/case
46827*	FLUIDSHIELD* PFR95* N95 Particulate Filter Respirator and Surgical Mask, Pouch-Style, Polyurethane Headbands, Size Small, Orange	210 eaches/case

*only for the Middle-East and Africa region.



EYE PROTECTION

Code	Description	Packaging
41204	Face Shield Full Length (no mask)	40 eaches/case
41205	Face Shield 3/4 length (no mask)	40 eaches/case
SV50A	Assembled Glasses, Assorted Colours	50 eaches/case
SV100F	Frames, Assorted Colours	100 eaches/case
SV250L	Replacement Lenses, Clear	250 eaches/case



GLOVES

Code	Description	Packaging
52000M	PURPLE NITRILE* Exam Gloves, XS	1000 eaches/case
52001M	PURPLE NITRILE* Exam Gloves, S	1000 eaches/case
52002M	PURPLE NITRILE* Exam Gloves, M	1000 eaches/case
52003M	PURPLE NITRILE* Exam Gloves, L	1000 eaches/case
52004M	PURPLE NITRILE* Exam Gloves, XL	900 eaches/case
13938	STERLING* Nitrile Exam Gloves, X-Small	2000 eaches/case
13940	STERLING* Nitrile Exam Gloves, Small	2000 eaches/case
13941	STERLING* Nitrile Exam Gloves, Medium	2000 eaches/case
13942	STERLING* Nitrile Exam Gloves, Large	2000 eaches/case
13943	STERLING* Nitrile Exam Gloves, X-Large	1700 eaches/case
47373	SKYBREEZE* Nitrile Exam gloves, XS	2000 eaches/case
47374	SKYBREEZE* Nitrile Exam gloves, S	2000 eaches/case
47375	SKYBREEZE* Nitrile Exam gloves, M	2000 eaches/case
47376	SKYBREEZE* Nitrile Exam gloves, L	2000 eaches/case
47377	SKYBREEZE* Nitrile Exam gloves, XL	1800 eaches/case



FLUIDSHIELD* MASKS

Code	Description	Packaging
48247	FLUIDSHIELD* Level 3 Fog-Free Surgical Mask with SO SOFT* Lining, Wraparound SPLASHGUARD* Visor, Pleat-Style with Ties, Orange	100 eaches/case
48207	FLUIDSHIELD* Level 3 Fog-Free Surgical Mask with SO SOFT* Lining, Pleat-Style with Ties, Orange	300 eaches/case
47147	FLUIDSHIELD* Level 3 Fog-Free Procedure Mask with SO SOFT* Lining and Ear Loops, Wraparound SPLASHGUARD* Visor, Pleat-Style, Foam Band, Orange	100 eaches/case
47107	FLUIDSHIELD* Level 3 Fog-Free Procedure Mask with SO SOFT* Lining and Ear Loops, Pleat-Style, Foam Band, Orange	400 eaches/case
62115	FLUIDSHIELD* Level 2 Procedure Mask with SO SOFT* Earloops	500 eaches/case



SPECIALTY MASKS

Code	Description	Packaging
47359	Teddy Bear Child's Mask with SO-SOFT* Earloops	750 eaches/case
62356	THE LITE ONE* Procedure Mask, Blue	500 eaches/case



SPLASH RESISTANT MASKS

Code	Description	Packaging
SRSM-IIR-TB	Type IIR Surgical Mask, Ties, Blue	2000 eaches/case
SRSM-IIR-TW	Type IIR Surgical Mask, Ties, White	2000 eaches/case
SRPM-IIR-EB	Type IIR Procedure Mask, Earloops, Blue	2000 eaches/case
SRPM-IIR-EW	Type IIR Procedure Mask, Earloops, White	2000 eaches/case



PROTECTIVE APPAREL

Code	Description	Packaging
69979	TRI - LAYER AAMI2 GOWNS, Yellow, Large	100 eaches/case
69988	TRI - LAYER AAMI2 GOWN, Yellow, X-Large	100 eaches/case
54310	TRI-LAYER AAMI3 GOWN, Blue, Large	100 eaches/case
54311	TRI-LAYER AAMI3 GOWN, Blue, X-Large	100 eaches/case
48392NS	AERO CHROME* High-Performance Surgical Gowns, Non-Sterile, Large**	40 eaches/case
48393NS	AERO CHROME* High-Performance Surgical Gowns, Non-Sterile, X-Large**	32 eaches/case
48394NS	AERO CHROME* High-Performance Surgical Gowns, Non-Sterile, XX-Large**	32 eaches/case

**AERO CHROME* Gowns are also available in Sterile and X-Long versions.

References

1. Català, R., Alonso, S., Camps, N., Martínez, M. J., Espasa, M., & Domínguez, À. (2011). Pandemic A/H1N1 influenza: Transmission of the first cases in Spain. *European Journal of Public Health*, 21(4), 443–448. Pandemic A/H1N1 influenza: transmission of the first cases in Spain - PubMed
2. European Centre for Disease Prevention and Control. (2010). The 2009 A(H1N1) pandemic in Europe: A review of the experience. Page 7. Stockholm: ECDC. <https://doi.org/10.2900/35415>
3. Center for Infectious Disease Research and Policy. (2012, April 3). Study: Life-years lost to H1N1 pandemic had sizable impact. University of Minnesota. <https://www.cidrap.umn.edu/h1n1-2009-pandemic-influenza/study-life-years-lost-h1n1-pandemic-had-sizable-impact>
4. Centers for Disease Control and Prevention. (2016). Influenza A (H3N2) Variant Virus. Retrieved from https://archive.cdc.gov/www_cdc_gov/flu/swineflu/variant/h3n2v-cases.htm
5. Peng, J., Yang, H., Jiang, H., Lin, Y., Lu, C. D., Xu, Y., & Zeng, J. (2014). The origin of novel avian influenza A (H7N9) and mutation dynamics for its human-to-human transmissible capacity. *PLoS ONE*, 9(3), e93094. <https://doi.org/10.1371/journal.pone.0093094>
6. Centers for Disease Control and Prevention. (2018). Asian Lineage Avian Influenza A (H7N9) Virus. Retrieved from https://archive.cdc.gov/www_cdc_gov/flu/avianflu/h7n9-virus.htm
7. Kile, J. C., Ren, R., Liu, L., Greene, C. M., Roguski, K., Iuliano, A. D., ... & Fry, A. M. (2017). Update: Increase in human infections with novel Asian lineage avian influenza A(H7N9) viruses during the fifth epidemic — China, October 1, 2016–August 7, 2017. *Morbidity and Mortality Weekly Report*, 66(35), 928–932. <https://doi.org/10.15585/mmwr.mm6640a8>
8. Centers for Disease Control and Prevention. (n.d.). Ebola outbreaks. U.S. Department of Health & Human Services. Retrieved August 1, 2025, from <https://www.cdc.gov/ebola/outbreaks/index.html>
9. Centers for Disease Control and Prevention. (2015). CDC's response to the 2014–2016 West African Ebola epidemic: Photo book. U.S. Department of Health and Human Services. <https://www.cdc.gov/about/pdf/ebola/ebola-photobook-070915.pdf>
10. Na, W., Park, N., Yeom, M., & Song, D. (2015). Ebola outbreak in Western Africa 2014: What is going on with Ebola virus? *Clinical and Experimental Vaccine Research*, 4(1), 17–22. <https://doi.org/10.7774/cevr.2015.4.1.17>
11. World Health Organization. (2015). MERS outbreak in the Republic of Korea, 2015. WHO Western Pacific Region. <https://www.who.int/westernpacific/emergencies/2015-mers-outbreak>
12. World Health Organization. (2025, February 13). Middle East respiratory syndrome coronavirus (MERS-CoV) – United Arab Emirates. WHO. <https://www.who.int/emergencies/disease-outbreak-news/item/2025-DON569>
13. World Health Organization. (2015, June 15). Middle East respiratory syndrome coronavirus (MERS-CoV) in the Republic of Korea. WHO. https://www.who.int/csr/disease/coronavirus_infections/situation-assessment/update-15-06-2015
14. Nielsen, J., Vestergaard, L. S., Richter, L., Schmid, D., Bustos, N., Asikainen, T., Trebbien, R., Denissov, G., Innos, K., Virtanen, M. J., Fouillet, A., Lytras, T., Gkolfinopoulou, K., Heiden, M. A., Grabenhenrich, L., Uphoff, H., Paldy, A., Bobvos, J., Domegan, L., O'Donnell, J., ... Krause, T. G. (2019). European all-cause excess and influenza-attributable mortality in the 2017/18 season: should the burden of influenza B be reconsidered?. *Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases*, 25(10), 1266–1276. <https://doi.org/10.1016/j.cmi.2019.02.011>
15. European Centre for Disease Prevention and Control. (2019). Annual epidemiological report for 2017 – Seasonal influenza. https://www.ecdc.europa.eu/sites/default/files/documents/AER_for_2017-seasonal-influenza.pdf
16. ArcGIS (2025). COVID-19 Dashboard [Online]. Accessed: 13 August 2025. Available at: <https://www.arcgis.com/apps/dashboards/ead3c6475654481ca51c248d52ab9c61> (Accessed: 09 April 2024)
17. World Health Organization. (2020, August 9). Transmission of SARS-CoV-2: Implications for infection prevention precautions. <https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>
18. Occupational Safety and Health Administration. (2009). Guidance on preparing workplaces for an influenza pandemic (OSHA 3327 - 06R 2009). Page 7 and 52. U.S. Department of Labor. <https://www.osha.gov/sites/default/files/publications/OSHA3327pandemic.pdf>



For more information,
please contact your O&M Halyard Customer Care Team:

UK & IE (toll-free)

Tel: 0800 085 82 04 - Fax: 0800 066 91 06

customerservice.uk.ie@owens-minor.com

Other countries

Tel: +32 2 585 51 14 - Fax: +32 2 897 00 95

customerservice.export@owens-minor.com