



Tayada Hawada Gudaha Habdhaqannada Ammaankaa



Ujeedo

Fasalka tababarkaan wuxuu sahamin doonaa habdhaqannada caafimaadka leh oo ammaankaa ee loogu talagalay ganacsiyada (oy ku jiraan kuwa guriga) oo la xiriira tayada hawada gudaha. Dhamaadka tababarkaan, ka qeybgale kasta wuxuu awoodi doonaa...



Ujeedo

1. Inuu aqoonsado hababka kala-duwan ee qulqulka-hawada iyo hawo-sifeynta



Building a greener HVAC industry - Blog -



school-ventilation-students-teachers.png (3471x1675)(cdc.gov)

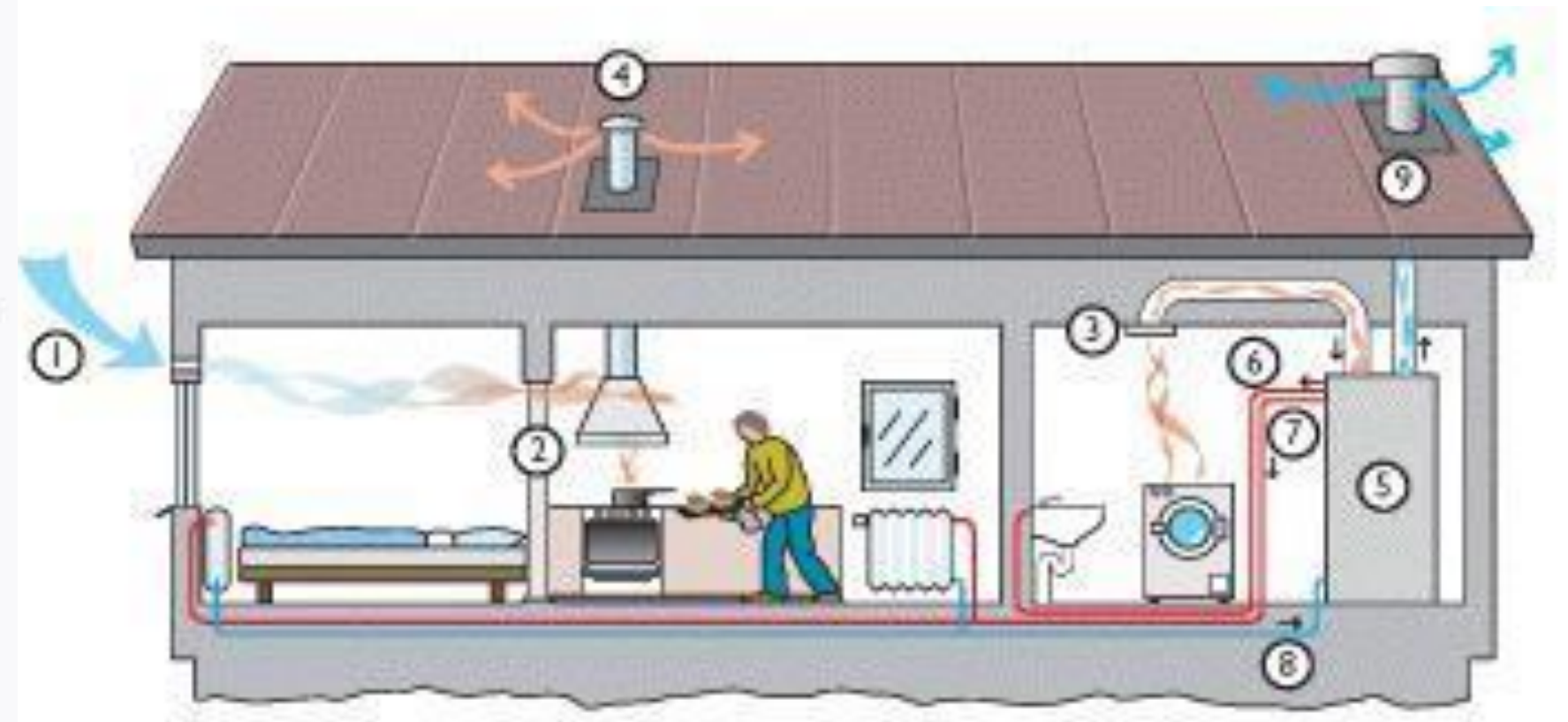
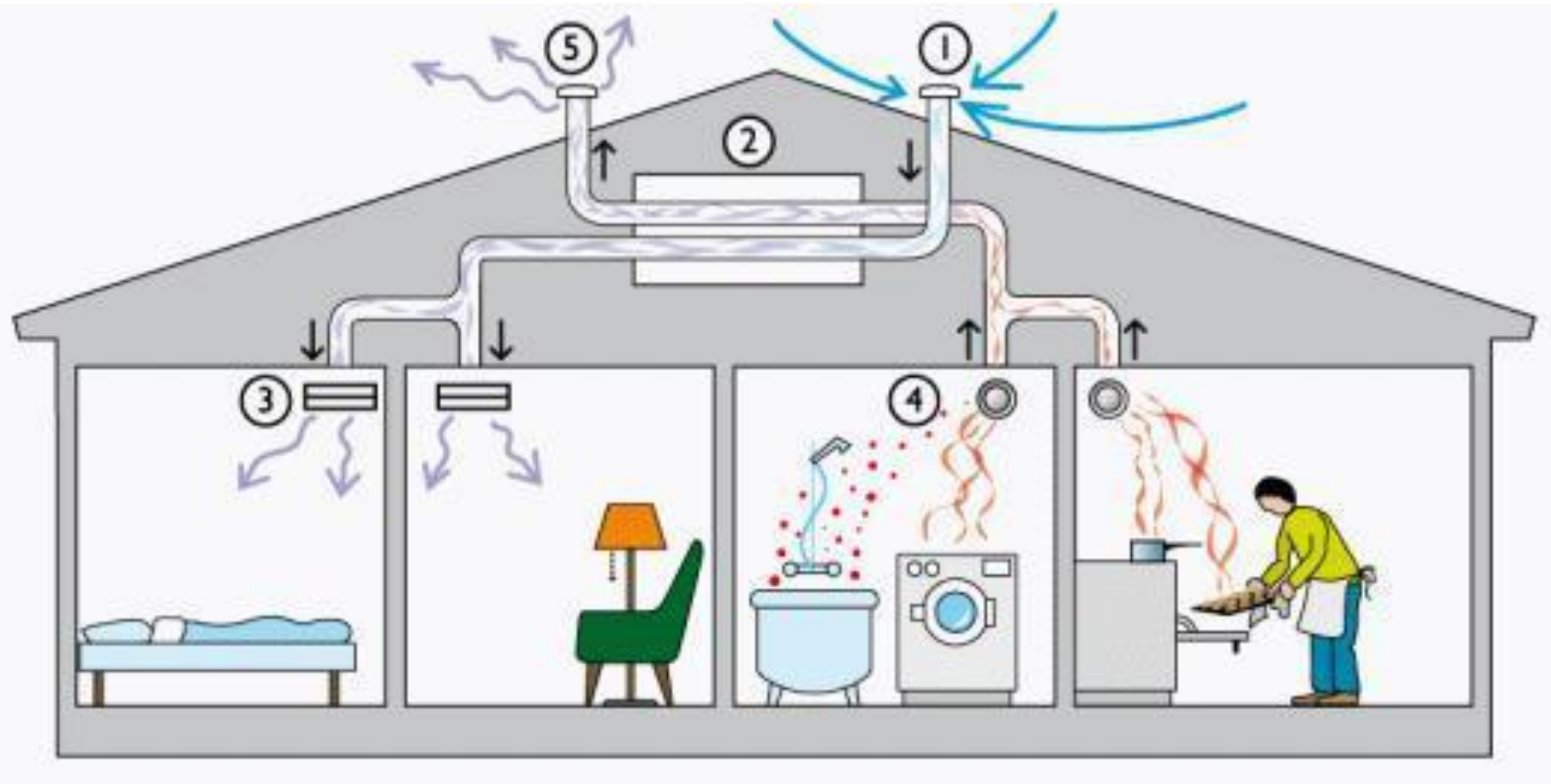
Ujeedo

2. Inuu qoro oo sharraxo tillaabooyin khaas ah oo lagu hormariyo tayada hawada gudaha



Ujeedo

3. Inuu ka dhaqangeliyo ugu yaraan hal ama tillaabo (ooyin) badan oo ay ka hirgelin karaan meeshooda



Sababta tayada hawada gudaha muhiimka u tahay

“Tayada Hawada Gudaha” waxaa loola jeedaa tayada hawada bey’ad guri, dugsi, xaafiis, ama dhismo kale.



Sababta tayada hawada gudaha muhiimka u tahay

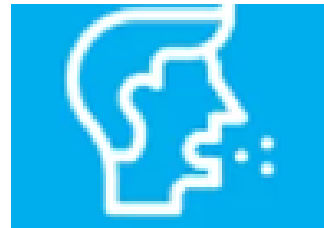
Isku-celcelis ahaan, reer Mareykanka waxay 90% ku qaataan gudaha waqtigooda, meeshaasoo ururista waxyaalaha wasakheeya hawada qaarkood ay inta badan 2 illaa 5 jeer ka sarreeyaan ururista bannaanka caadi ahaan.

4 Ways to Improve Indoor Air Quality - DrJockers.com



Noocyada caankaa ee waxyaalaha wasakheeya hawada gudaha

Waxyaalo yaryar oo hawada ku jira



- Bus, maqaar dhintay, duf ubaxeed, qaac gaari, dhogor rabaayad, bidbid buseed, saharo, qiiq, timo, maaddo dhireed

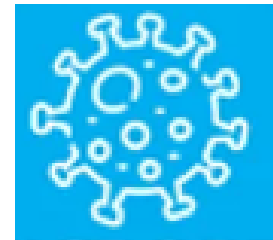
Urta Guriga & Gaasyada



- Urta cunto-karinta, urta rabaayadaha, sigaarka, urta waaskada jikada ama godka biyaha, urta qashinka, hawo “taagan”

Noocyada caankaa ee waxyaalaha wasakheeya hawada gudaha

Bakteeriyo & Jeermisyo



- Bakteeriyo, Madoobaad, Qurmis, Cayayaan, Feyrasyo, Faangas, Sunley

Volatile Organic Compounds (VOCs)
{Maaddooyin Guryaha Ku Jira oo Hawada aan Neefsanno ku bida}



- Riinjiyo, xabag iyo boolish, koollo, qalabyada fadhiga iyo xaafiiska, alaabaha nadiifinta, maaddooyinka alwaaxda ilaaliya/isku-dhejiya, dufta rooga ka bida, kiimikooyin

Ilmaqabatooyinka Hawada ku-jira

Qaaca Gawaarida



Vehicle exhaust emissions | What comes out of a car exhaust? | RAC Drive

Busta



Where Does Dust Come From? Guide to Sources in House and Solutions - Molekule Blog

Qiiqa Gubatada Duurka



(Noah Berger / Associated Press)

Urta Guriga & Gaasyada

Urta Qashinka



©Freepik /
frimufilms

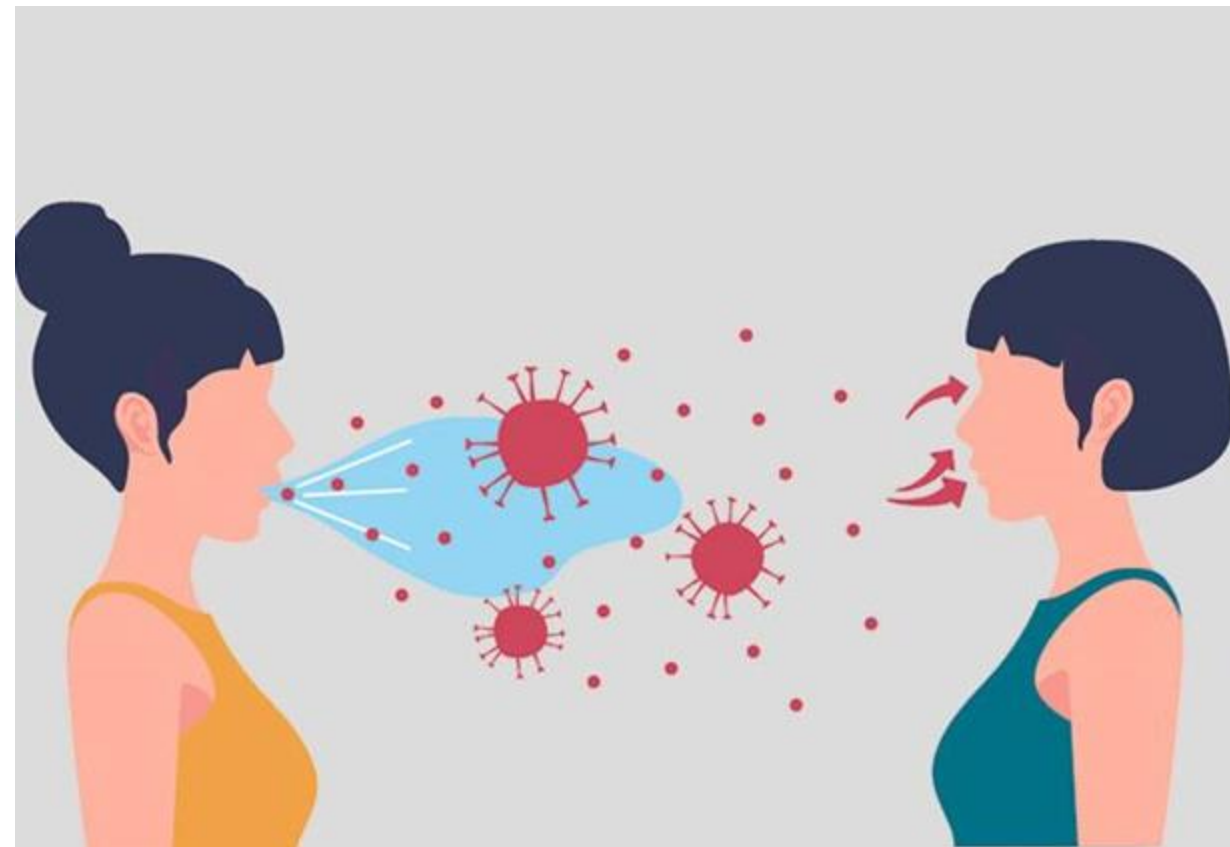
Urka Waaskada Jikada ama Godka Biyaha



NickyLloyd/iStock via Getty images / NickyLloyd/iStock via Getty
images

Bakteeriyada & Jeermisyada

Feyrasyada (Hargab, COVID, iwm)



covid19-family-safety-coronavirus.ashx (640×440)
(hopkinsmedicine.org)

Madoobaad (mold)



Mold | Vermont Department of Health
(healthvermont.gov)

Maaddooyinka VOC ah

Alaabaha Nadiifinta



What are VOCs? - Volatile Organic Compounds | Energy Air, Inc.

Riinjiyada, iyo Boolishka Ciddiyaha



Getty

Dhaqdhaqaaqyo guri oo lagu hormariyo tayada hawada gudaha

- Ha isticmaalin alaabo la-carfiyay si lagu daboolo urka guriga (carfisooyinka ma nadiifiyaan hawada, beddelkeeda waxay ku daraan kiimikooyin sii xumeyn kara tayada xun ee hawada)
- Si joogtaa samee bus-qaad qoyan iyo sagxad-dhaqis
- Isticmaal huufar/roog-nadiifiye leh filtar HEPA ah
- Ka fogow ku gubista shumacyada ama cuudyada gudaha

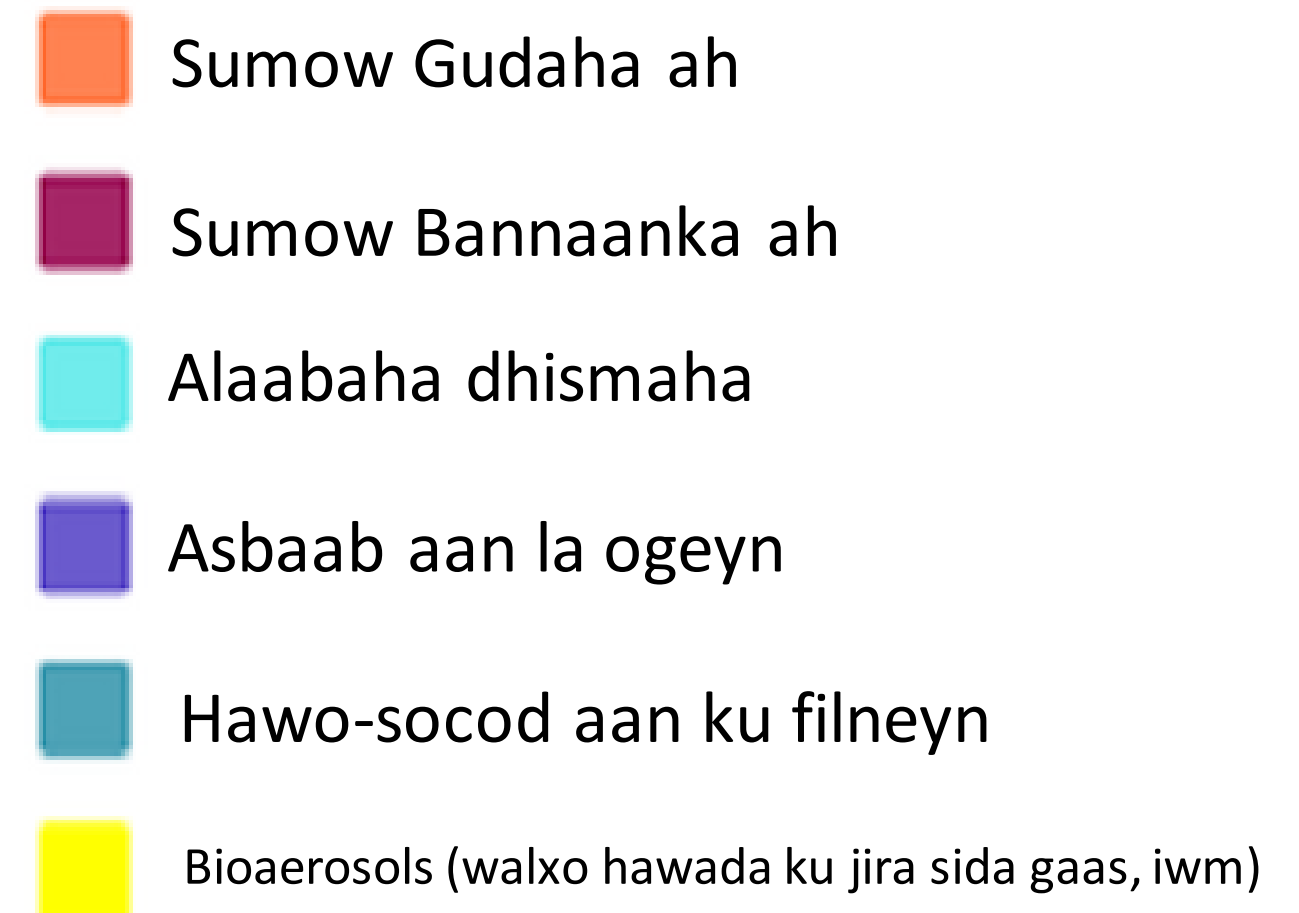
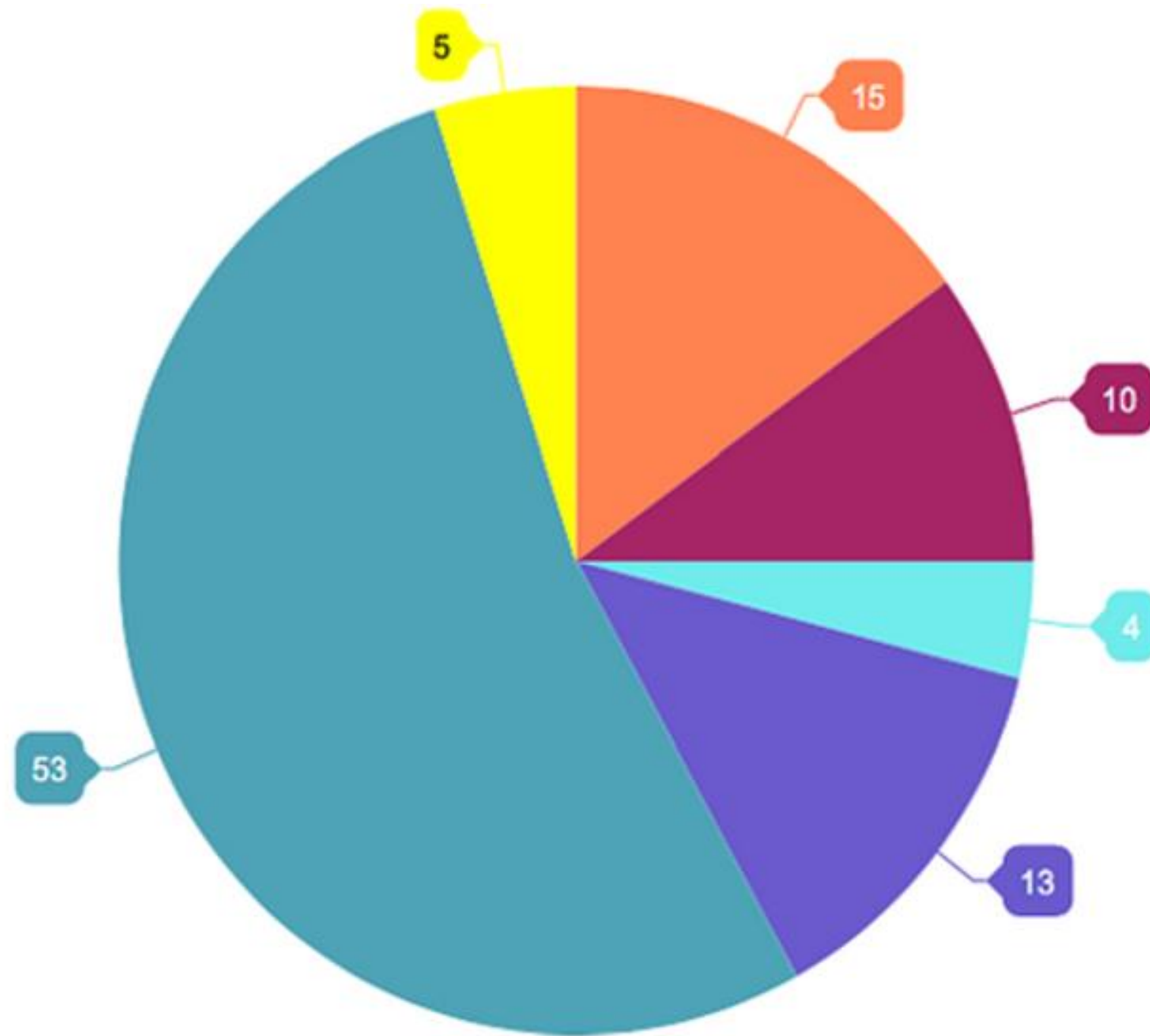


Dhaqdhaqaaqyo guri oo lagu hormariyo tayada hawada gudaha

- Ha ku cabbin sigaar gudaha
- Ha ku qaadan kabo gudaha
- Maalmaha hawadu xuntahay, ka fogow isticmaalka makiinadaha cunto-karinta ee gaaska isticmaala
 - Dooro dabshidyo koronto ku shaqeeya markaad awoodo sidookale
- Ka fogow gubidda ama shiilidda cuntooyinta



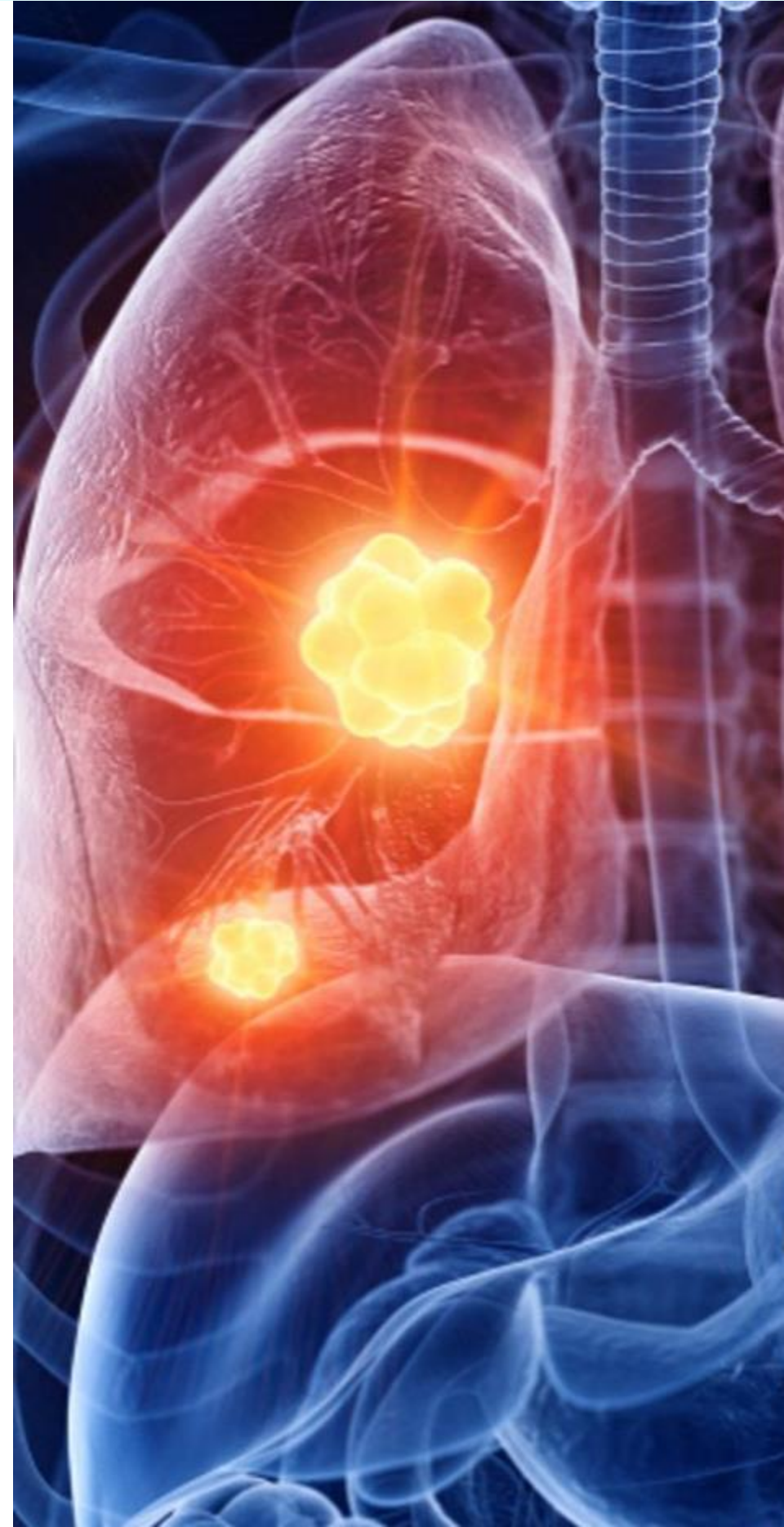
Sababta Tayada Hawada Xun ee Gudaha



Saameeynta Tayada Hawada Xun ee Gudaha

Saameeynta caafimaadka dadka ee la xiriira tayada hawada xun ee gudaha waxaa ka mid ah:

- Cudurrada neefmareenka (sida neefta, iyo cudurka sambabada xira oo raaga)
- Cudurka wadnaha, iyo kansarka
- Madax-xanuunnada, dawakhnaanta, iyo daalka



Saameeynta Tayada Hawada Xun ee Gudaha

Saameeynta caafimaadka dadka ee la xiriira tayada hawada xun ee gudaha waxaa ka mid ah:

- Cuncunka indhaha, sanku, iyo cunaha
- Calaamadaha hargabka ama ifilada
- Uga-darista xaalad caafimaad oo jirtay



Saameeynta Tayada Hawada Xun ee Gudaha

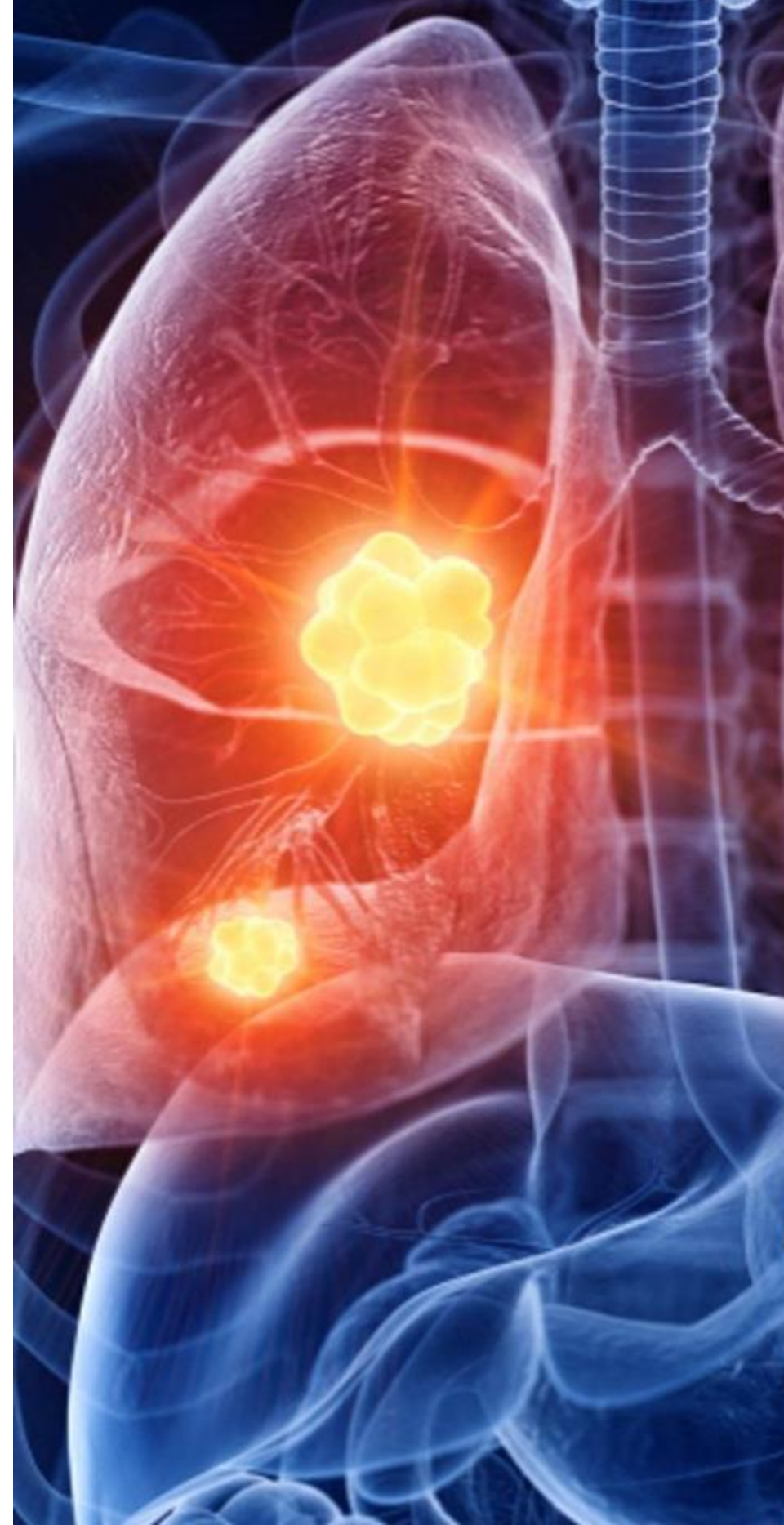
Tobankii sano ee la soo dhaafay, cilmi-baarayaashu waxay ogaadeen heerarka sare ee hawada wasakheysan/sumeysan inay dhaawici karto caruurta awoodahooda maskaxeed, siyaadin karto khatarta dadka waaweyn ee hoos-u-dhaca maskaxda iyo inay xittaa keeni karto niyadjab raaga

American Psychological Association, 2012



Image Credit:

melitas/Shutterstock.com



Kooxaha Ugu Nugul

Kooxaha dadka ugu nugul tayada hawada xun ee gudaha

waxaa ka mid ah:

- Caruurta yaryar
- Haweenka uurka leh
- Dadka qaba cudurrada neefmareenka, cudurrada wadnaha ama cudurrada raaga
- Dadka ka weyn da'da 65+
- Dadka qaba (ama uu ku dhacay) COVID-19
- Dadka la kulmaya saameeynta sinnaan la'aanta bey'adeed (u dhaw eeraboor, aagagga warshadaha)

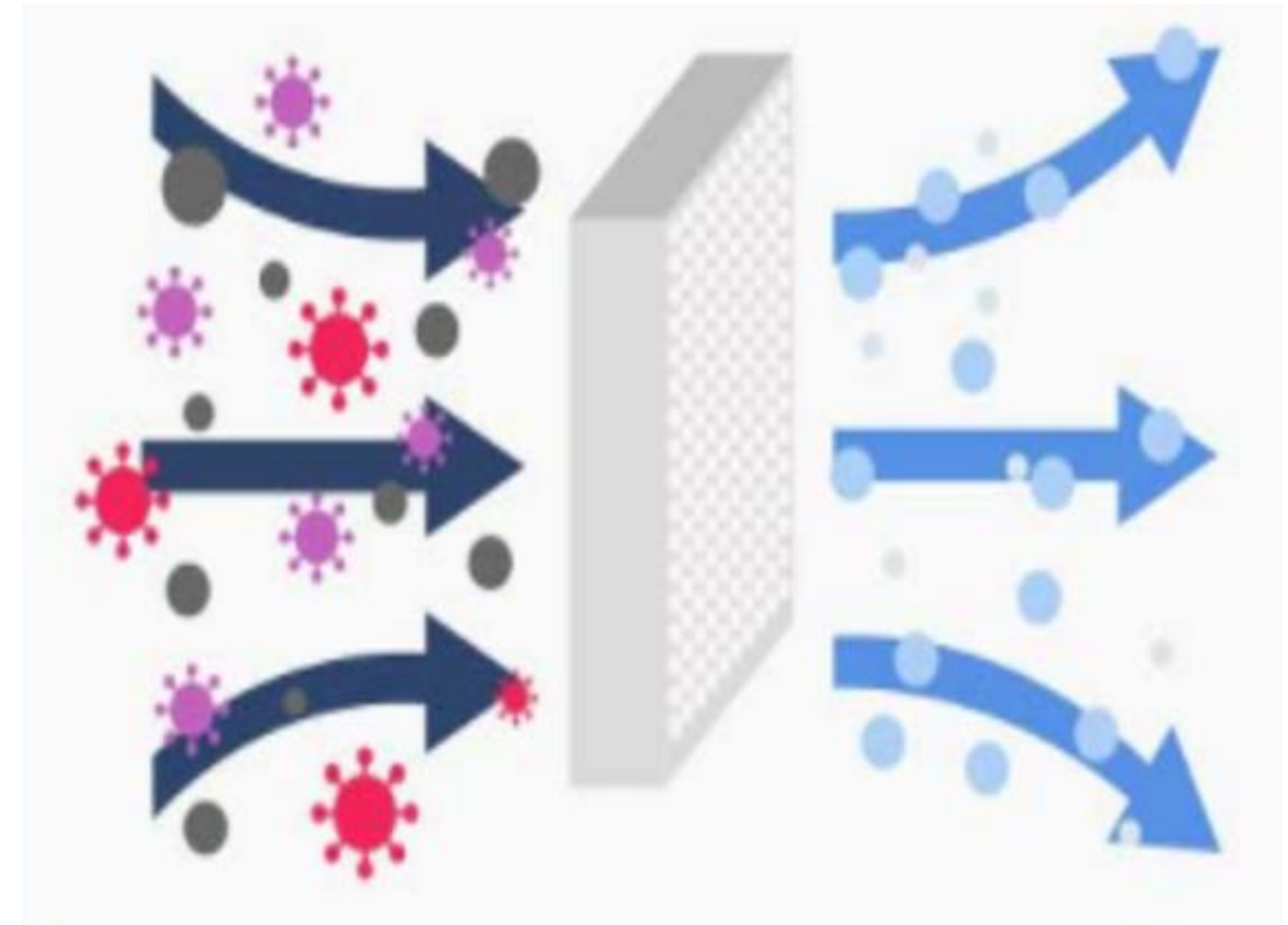


Qulqulka-hawada iyo Hawo-sifeynta

Qulqulka-hawada: soo-gelinta hawo cusub
(barxidda)



Sifeynta: Ka-qabashada iyo ka-saarista
hawada walxo yaryar



Noocyada kala-duwan ee Qulqulka-hawada

Ilaha Dabeecigaa ee Qulqulka-hawada:

Daaqadaha iyo
Albaabada



hinged-french-door-black-open.jpeg (540x300) (contentstack.io)

Ilaha Qalabka ee Qulqulka-hawada:

HVAC (Kululeyn, qulqul-hawo, iyo hawo-qaboojin) Marawaxado, iyo nidaamyada qaaca



How a New HVAC System Can Keep Your Home Healthy | Anchor | GA
(anchorac.com)



Ilaha Dabeecigaa ee Qulqulka-hawada

- Haddii cimilada iyo tayada hawadu ogolaadaan, soo geli gudaha hawo cusub inta ugu badan ee macquulkaa ayadoo la furayo albaabada iyo daaqadaha.
- Marawaxado ku jira daaqad si loo afuufo hawada wasakheysan iyo si daaqado iyo albaabo kale oo furan hawo cusub uga soo gasho beddelkeeda.



2 Fresh-Air.png (900x600)



Comparing Single-Hung vs. Double-Hung Windows |

Ilaha Qalabka ee Qulqulka-hawada:

- Nidaamka HVAC-ga (Kululeyn, qulqul-hawo, iyo hawo-qaboojin) wuxuu ka kooban yahay mid ama qalab badan oo hawada wax ka qabta oo bannaanka hawo cusub kasoo jiida kuna wareejiya hawada dhismaha.
- Tuubada qaaca maxaligaa, musqulaha, marawaxadaha qaaca sida marawaxadaha musqulaha ama kuwa jikada, waa in ay daarnaadaan markasta oo dhismaha la joogo. Tan waxay dhismaha ka saartaa hawo taasoo hawo cusub soo gelisa.



Getty Images



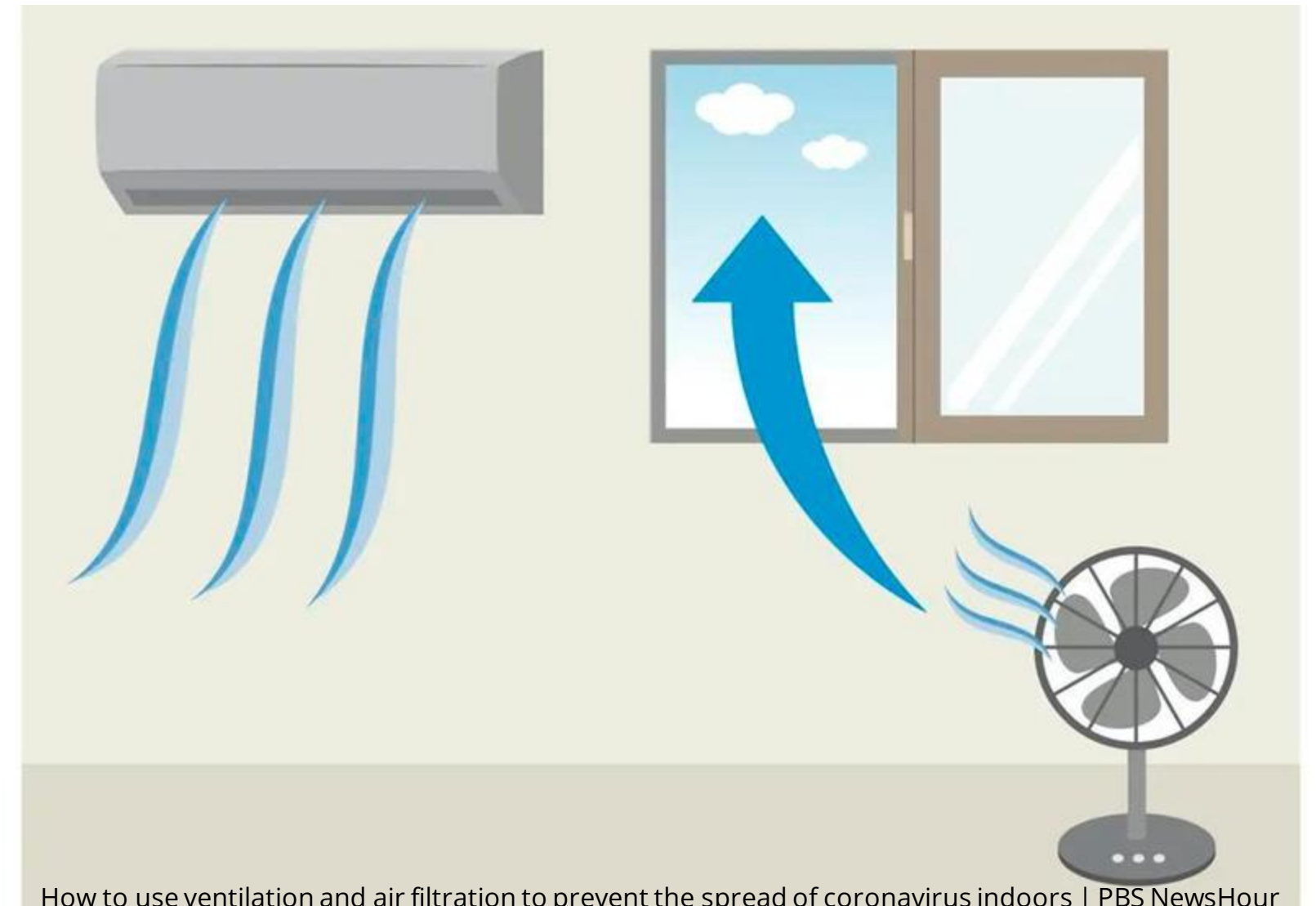
Range-Hood-for-Kitchen-220V-Kitchen-Hood-Chinese-Small-Kitchen-Extractor-Hood-Oil-Suction-Machine-Top.jpg_Q90.jpg_webp (750x1000)

Talooyinka isticmaalidda marawaxadaha la-qaadan karo ee hawo-socodka lagu hormariyo

Dhig marawaxad meeshu ugu dhaw ee macquulkaa daaqad furan oo hawada dibedda u afuufita. Tan waxay yareysa sunta hawada gudaha ku jirta, oy ku jiraan feyrasyada. Xattaa daaqad furan la'aan, marawaxadaha waxay hagaajin karaan socodka hawada.



Can't sleep because of the heat? Try this clever fan trick | Stuff.co.nz



How to use ventilation and air filtration to prevent the spread of coronavirus indoors | PBS NewsHour

Talooyinka isticmaalidda marawaxadaha la-qaadan karo ee hawo-socodka lagu hormariyo

Haddii aad u baahato marawaxada si hawo-socodka loo hormariyo ama inta lagu jiro cimilada kulul, ka fogow ku afuufidda hawada qof ilaa qof si looga hortago faafitaanka jeermisyada. Ka jeedi marawaxadaha dadka.



Xaggee hawadaadu ka imaaneynsaa?

Qalab Hawo Siin (Hawo Siiye) -

Hawo siinta gudaha dhismaha



Qalab Hawo Qaadis (Hawo Qaade) -

Ka-saarista hawada dhismaha



Sida Loo Bilaabo?

Raadi qalabka hawo-qaadka?



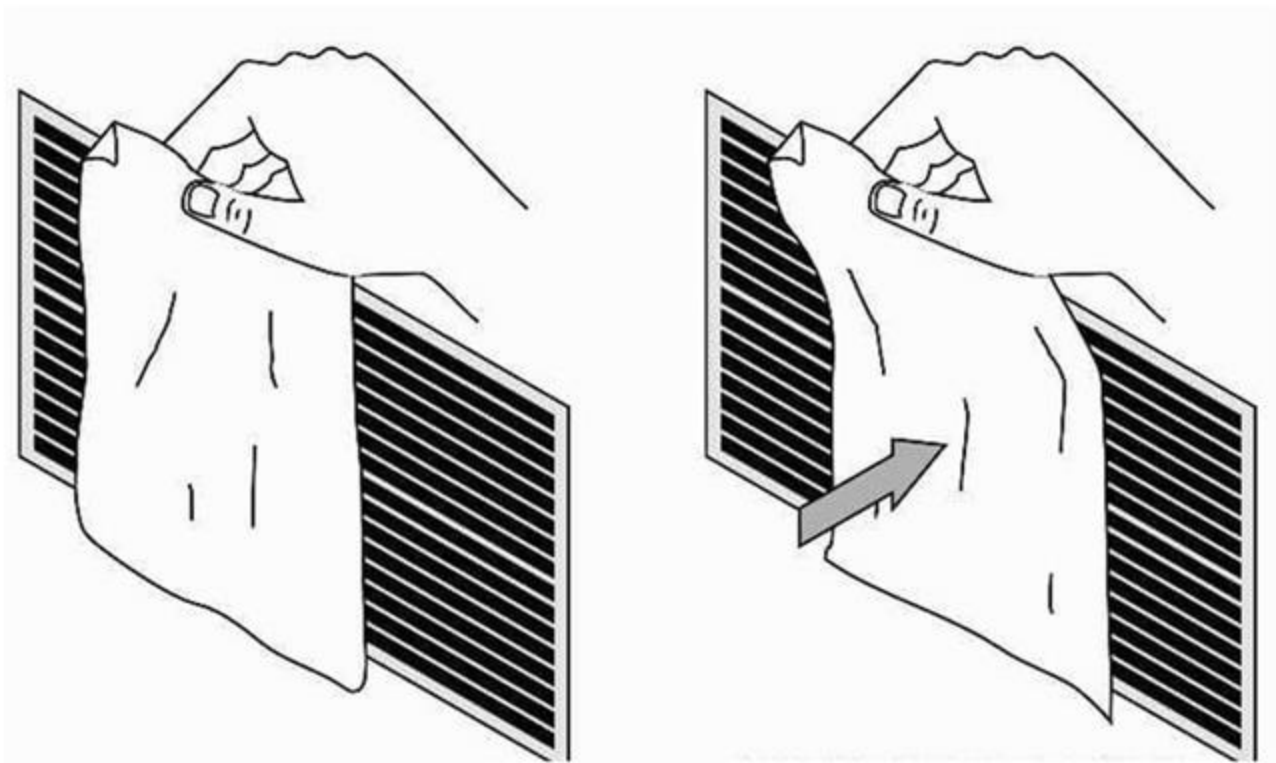
Hawo-qaadayaashu ma xiranyihiin/wasakh baa?



Hawo-siiyeyaashu ma xiranyihiin?

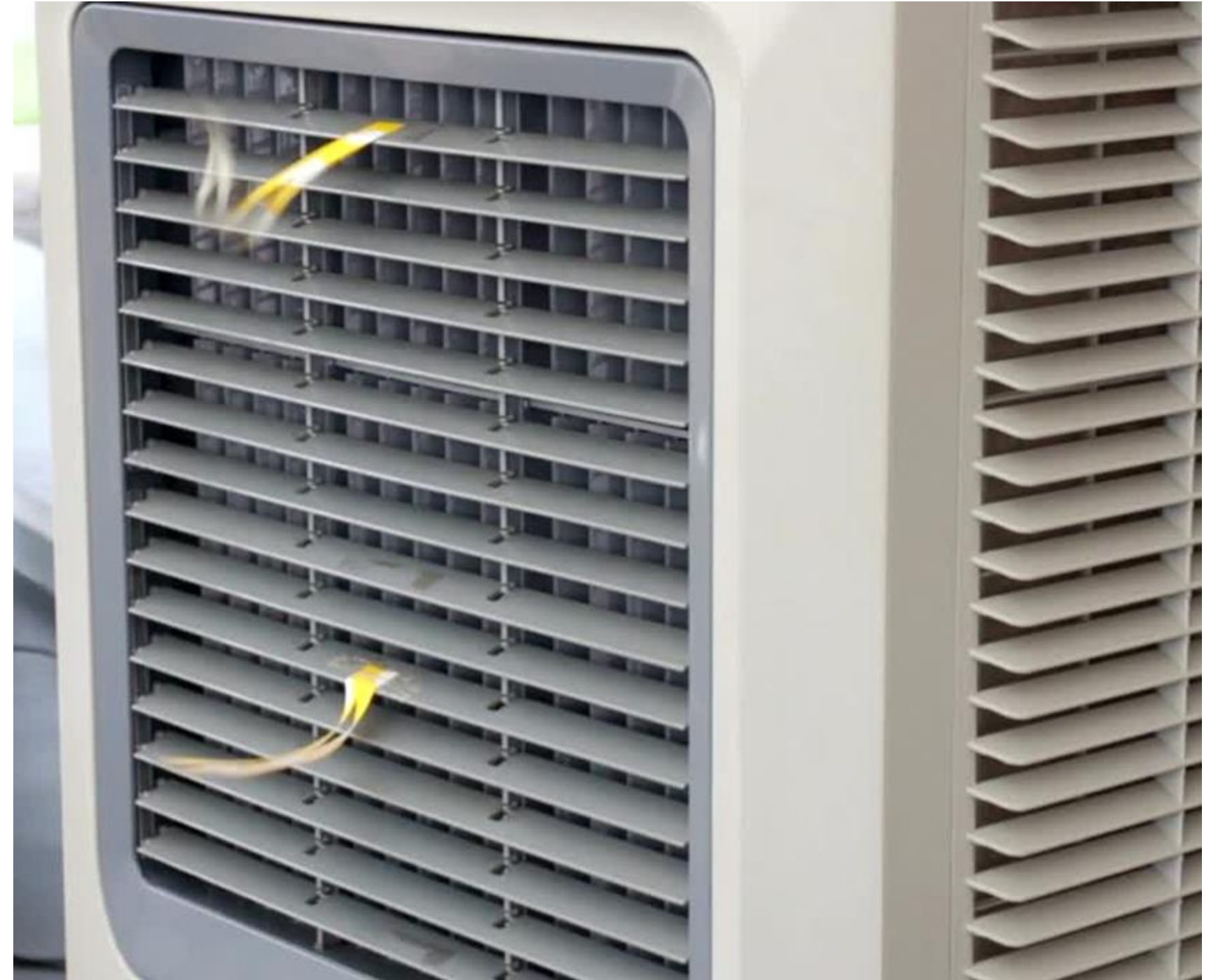


Imtixaanka Warqadda



Warqaddu wey ku dhegtaa (qalabka hawo-qaadka)

Warqaddu wey afuufantaa (Qalabka hawo-siinta)



Xallalka



Haddii HVAC-ga la heli karo, filtarrada u cusbooneysii heerka ugu sarreeya ee HVAC-gaagu si ammaan ah u xamili karo. MERV 13 ayaa lagu taliyaa ama nooc la mid ah. HVAC waxaa loogu talagalay soo-gelinta hawada debedda inta ugu badan ee suurtoogalka ah iyada oo nidaamkaagu uu xamili karo, ujeeddaduna tahay 100%.

Fur daaqad markii tayada hawada bannaanka fiicantahay



Isticmaal qalab Hawo Nadiifiye HEPA ah oo Laqaadan karo. Raadi qalabka hawada sifeysan kor u saara

Qulqulka Hawada Xun

- Awoodin inuu ku soo geliyo HVAC hawada bannaanka.
- Daaqado la furin ama daaqado aan la furi karin.
- La'aanta qalab sifeyn si lagu sifeeyo hawada gudaha.



Qulqulka Hawada Fiican

- Nidaam HVAC oo fiican si habsami leh u keeni kara hawada bannaanka, sifeyn karana wixii hawo ah oo gudaha ku wareeganeysa
- Marawaxadaha Safiitada waxaa loo isticmaalaa kor u jiidista hawada.
- Daaqadaha furan waxay u oggolaadaan hawada cusub ee bannaanka inay guriga soo gasho.
- Hawo-nadiifiyaha HEPA wuxuu nadiifiyaa hawada gudaha.



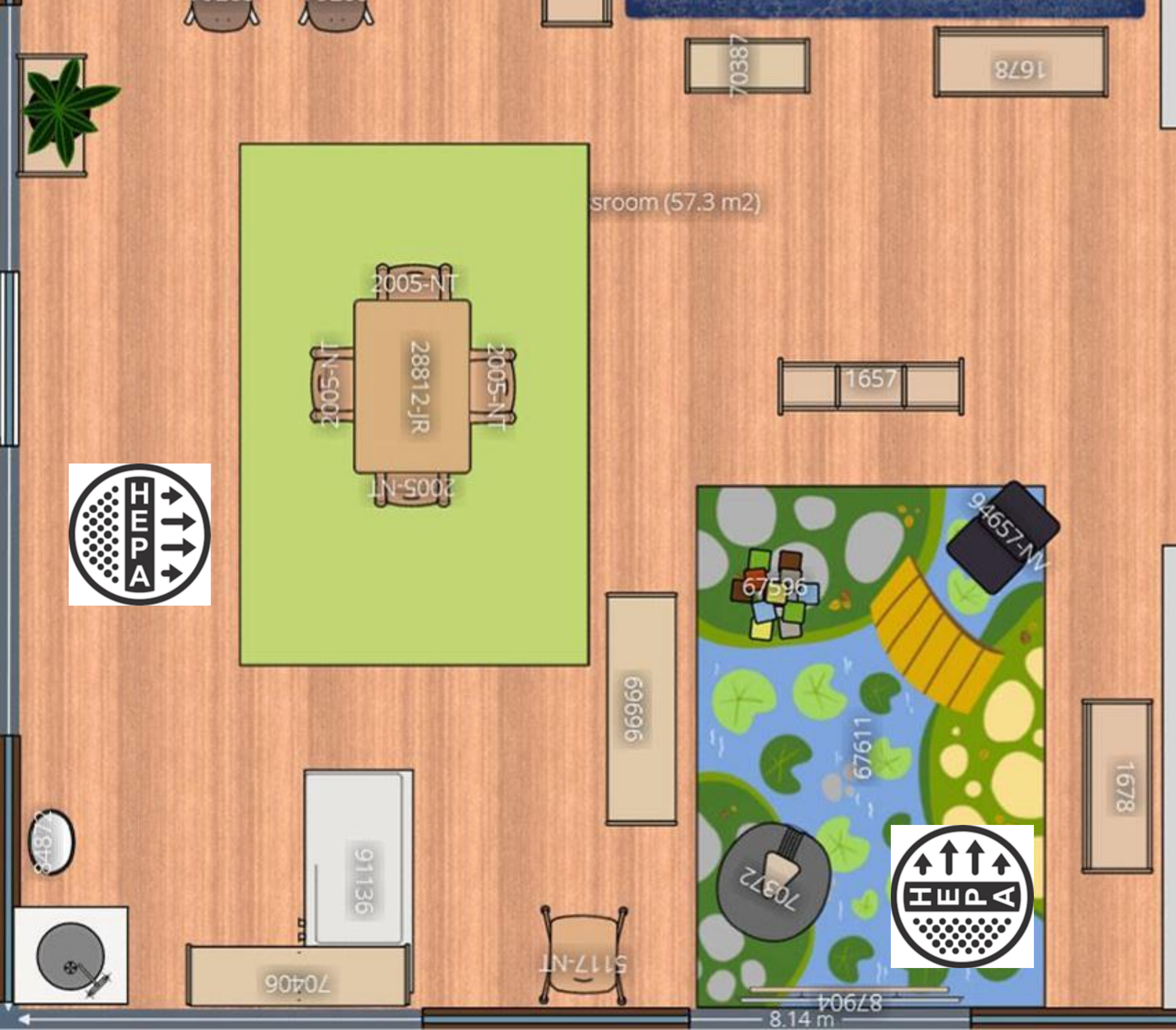


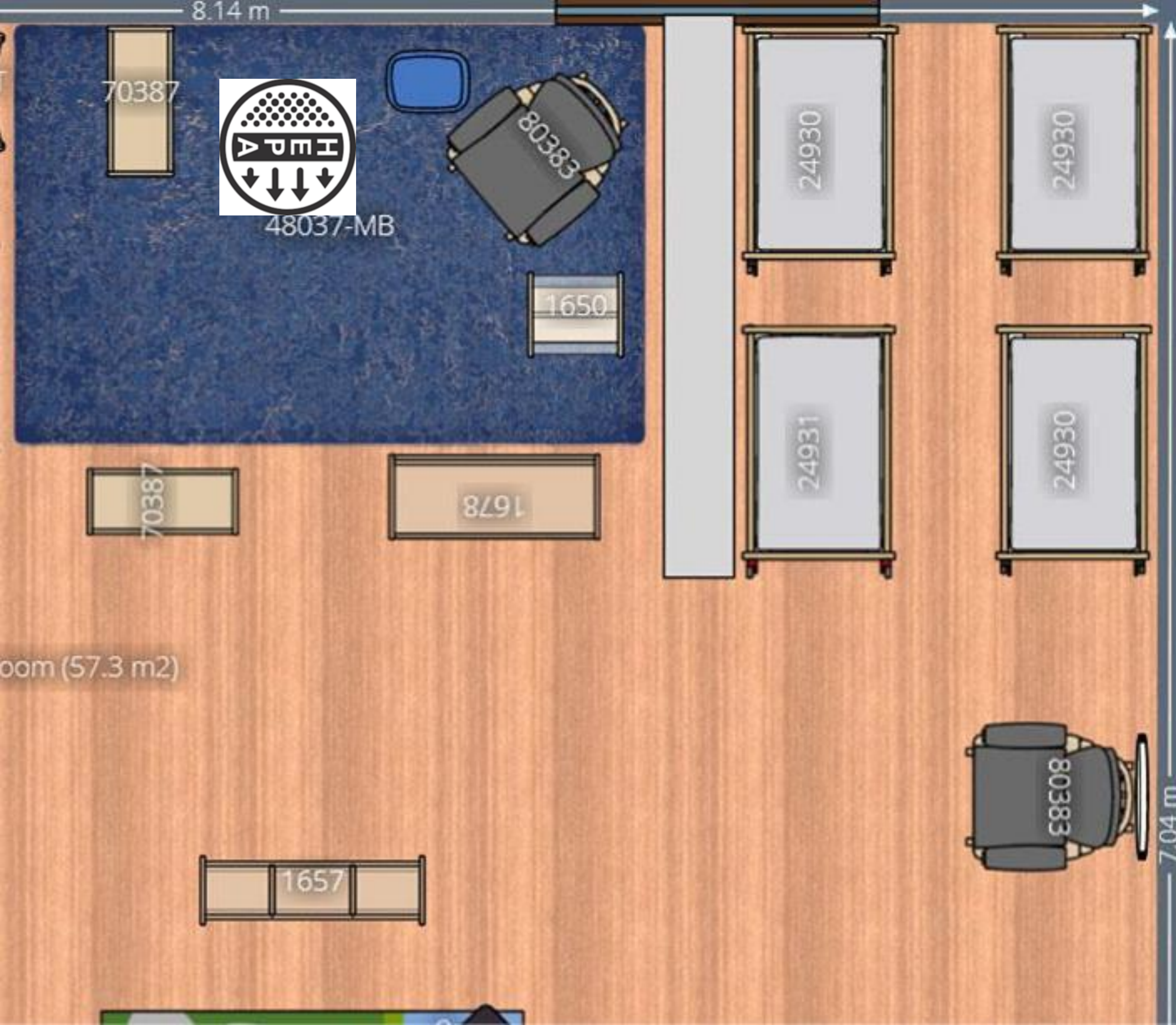
Talooyin

- Dhig hawo-nadiifiyeyaasha HEPA meelaha dadku waqtiga ugu badan ku qaataan
- Hawo-nadiifiyeyaasha HEPA waa in ay ugu yaraan 1 taako (foot) ka fogyihiin derbiga ama alaabta kale.

Talooyin

- Dhig hawo-nadiifiyeyaasha HEPA meelaha dadku waqtiga ugu badan ku qaataan
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Talooyin

- Dhig hawo-nadiifiyeyaasha HEPA meelaha dadku waqtiga ugu badan ku qaataan
- Hawo-nadiifiyeyaasha HEPA waa in ay ugu yaraan 1 taako (foot) ka fogyihiin derbiga ama alaabta kale.

Ma nabdoona in daaqadaha la furo markii tayada hawadu xuntahay



- Meelaha ka hooseeya waddooyinka diyaaradaha
- Inta lagu jiro xilliga qiiqa gubatada duurka
- Aagagga taraafiga culus/aagagga warshadaha, iyo aagagga nabadgelyada walaaca laga qabo.

Hagaha Noocyada Tasmada Tayada Hawada



Sidaa uga jeedid muujinta; markii tasmada tayada hawadu ay tahay:

Cagaar = tayada hawadu wey fiican tahay

Jaalle = tayada hawadu waa dhexdhexaad

Oranji/casuur = tayada hawadu wey u caafimaad daran tahay
kooxaha nugul

Guduud = tayada hawadu wey u caafimaad daran tahay kooxaha oo dhan

Buluug-barxan = waxay muujisaa tayada hawadu in ay aad u
caafimaad daran tahay

Guduud-culus = waxay muujisaa tayada hawadu in ay halis tahay

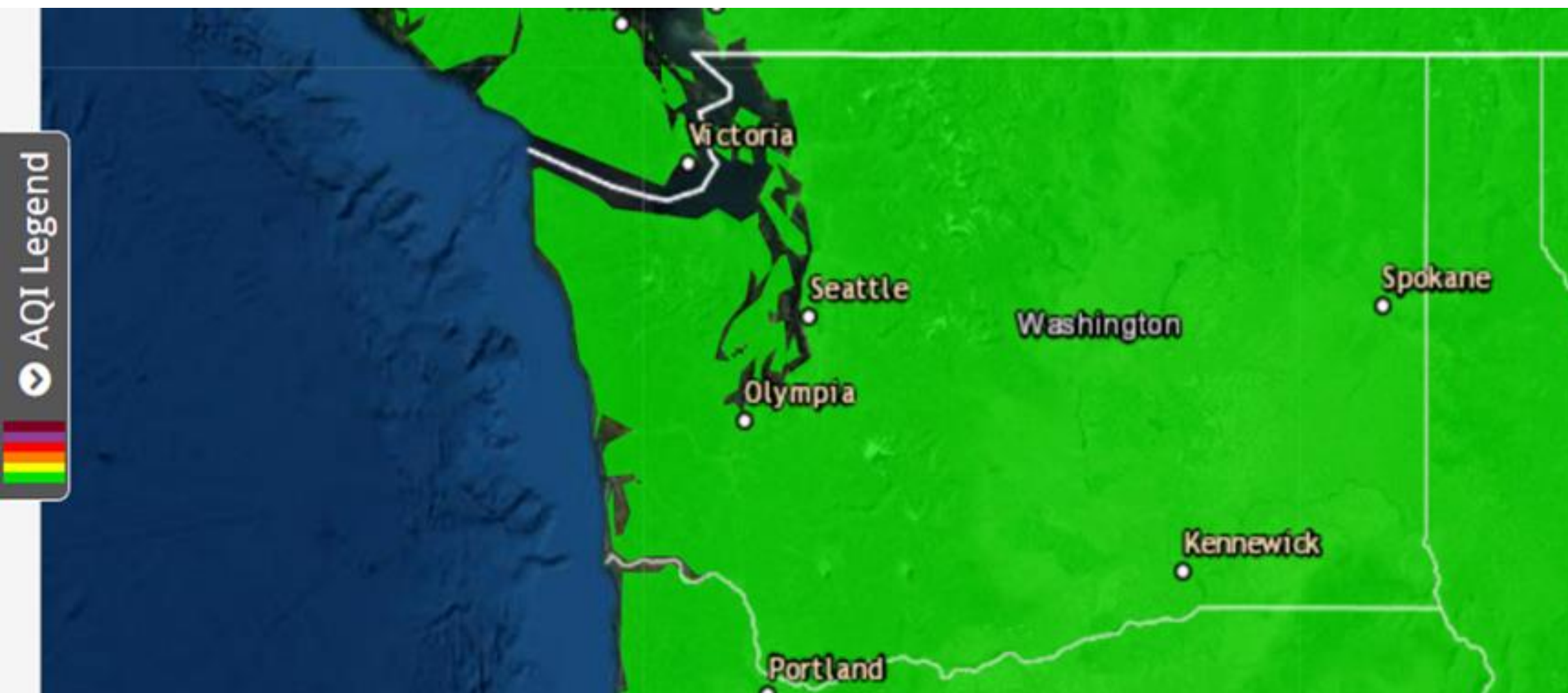
Hagaha Noocyada Tusmada Tayada Hawada



Loo isticmaalo cabbirida tayada hawad bannaanka ee 5-ta waa-weyn ee wasakheeya (sumeeya hawada):

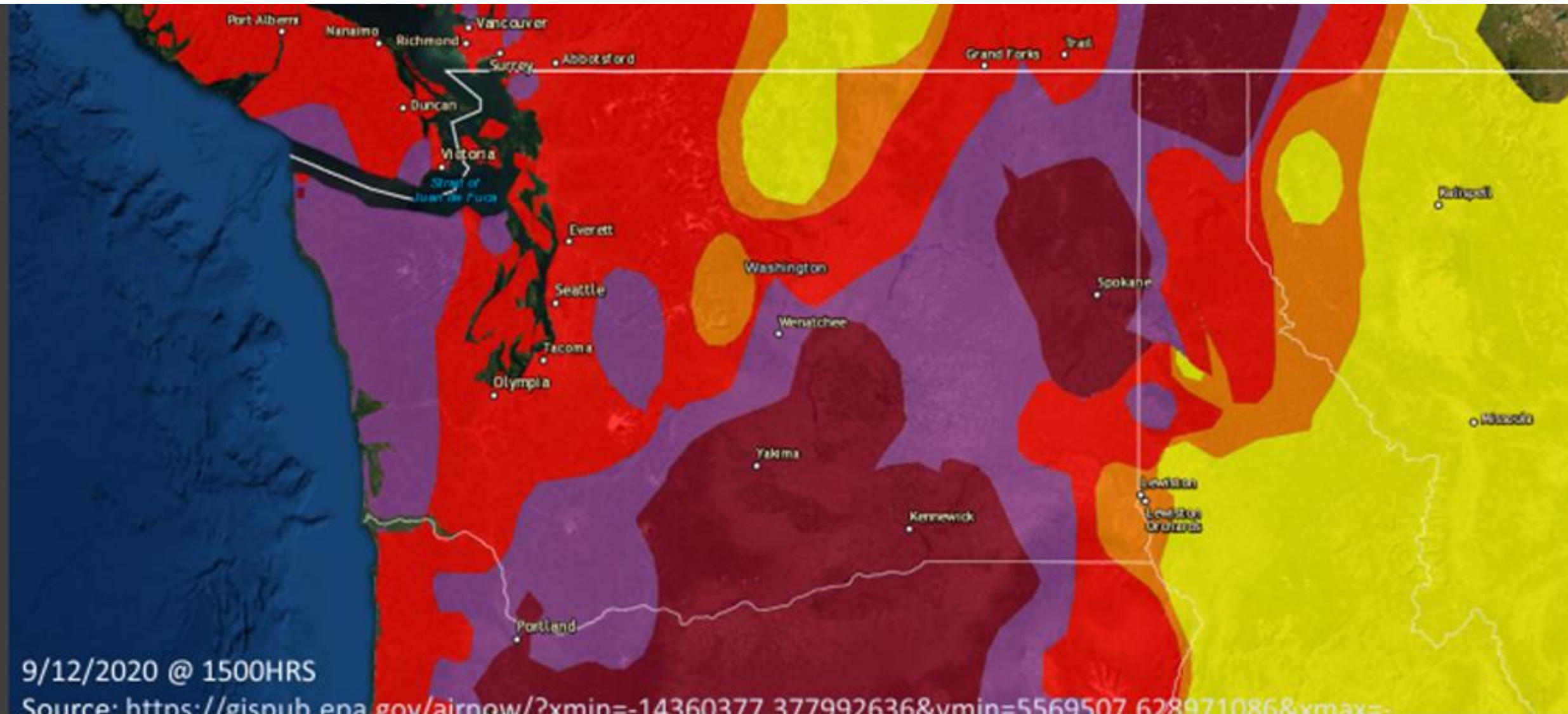
- Particulate matter (PM) - Sumeeyaha ugu caansan ee hawada
- Ozone –Qaaca gawaarida iyo warshadaha
- Carbon monoxide –qalabka dharka qallajiya, biyaha kululeeya
- Sulfur dioxide –qaaca warshadaha
- Nitrogen dioxide –gawaarida iyo qalabka wax-dhisidda

Guide to Air Quality Index Categories



Sawir tusaalahaan wuxuu muujinaya tusmada tayada hawada cagaarka ah ee Washington oo sheegaya tayo hawo fiican.










Guide to Air Quality Index Categories



Sawir tusaalahan wuxuu muujinayaa tayada hawada gobolka hawadiisu tahay dhexdhexaad (midab jaalle) illaa halis (midab gaduud tikh ah).

Puget Sound Clean Air Agency

(Hay'adda Hawada Nadiifkaa ee Puget sound)

King	Activity Level	Sensitive Groups	Lower-risk Adults
Kitsap			
Pierce			
Snohomish			
Cascades			

Forecast Discussion

For July 1-5 (Fri-Tues): We'll have mostly GOOD air quality this weekend, with the possible exception of localized, shorter-term episodes of MODERATE, UNHEALTHY FOR SENSITIVE GROUPS, OR UNHEALTHY air quality due to fireworks in the evening of Independence Day (Monday), and overnight into Tuesday morning. Apart from the 4th, clouds and showers will help keep the air mixed and pollution levels from building.

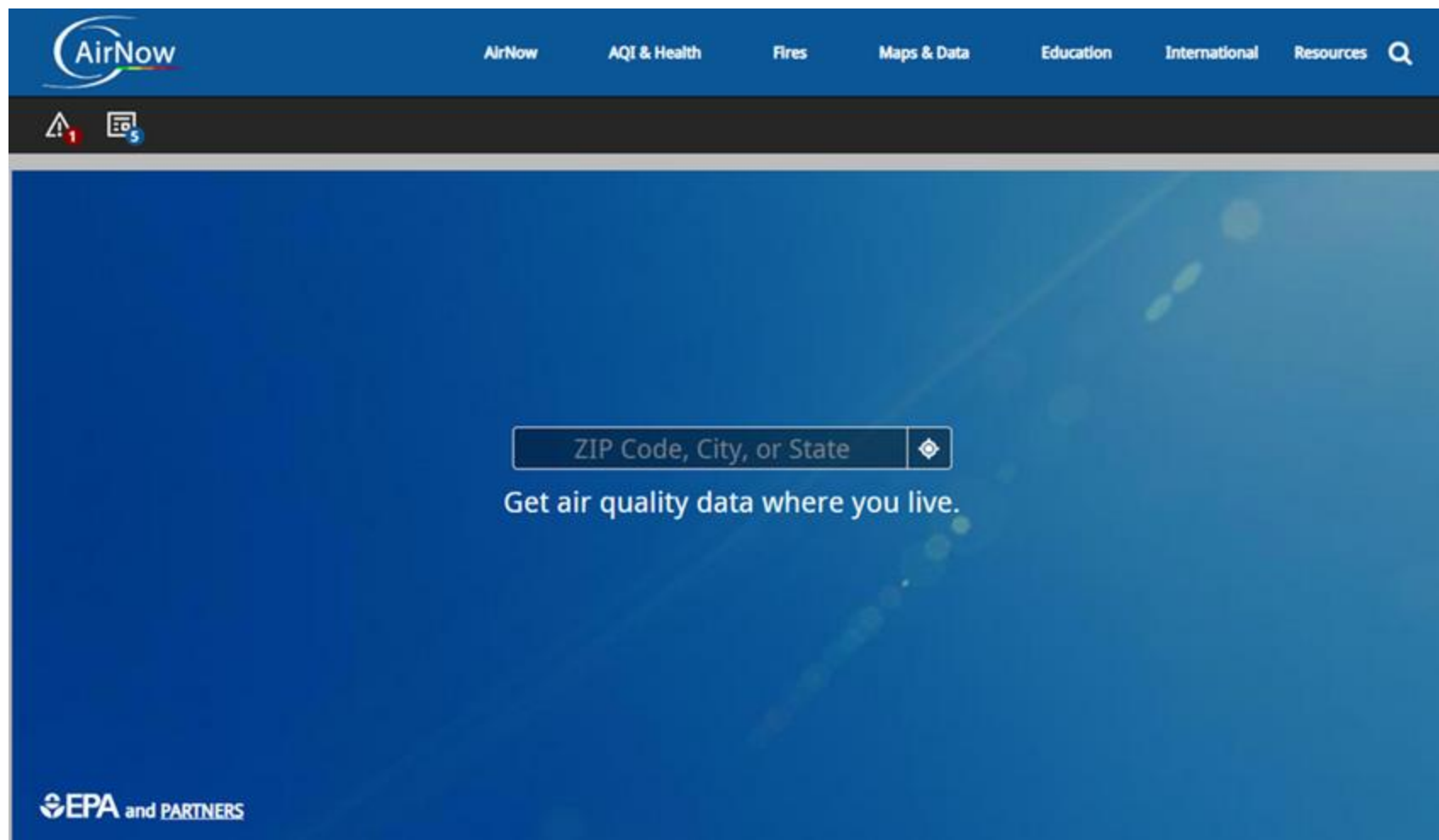
Booqo bogga khadka Puget Sound Clean Air Agency: www.pscleanair.gov (bog-khad af Ingiriis keliya ku qoran) si aad u aragtid tayada hawada isbuuca.

www.pscleanair.gov

EPA

Si aad u heshid tasmada tayada hawada meeshaad ku nooshahay, aad www.airnow.gov (tusmo ku qoran Ingiriis keliya) oo geli zip code-kaaga.

Kadib markaad gelisid zip code-kaaga, waxaad heli doontaa tayada hawada jirta ee aagga.

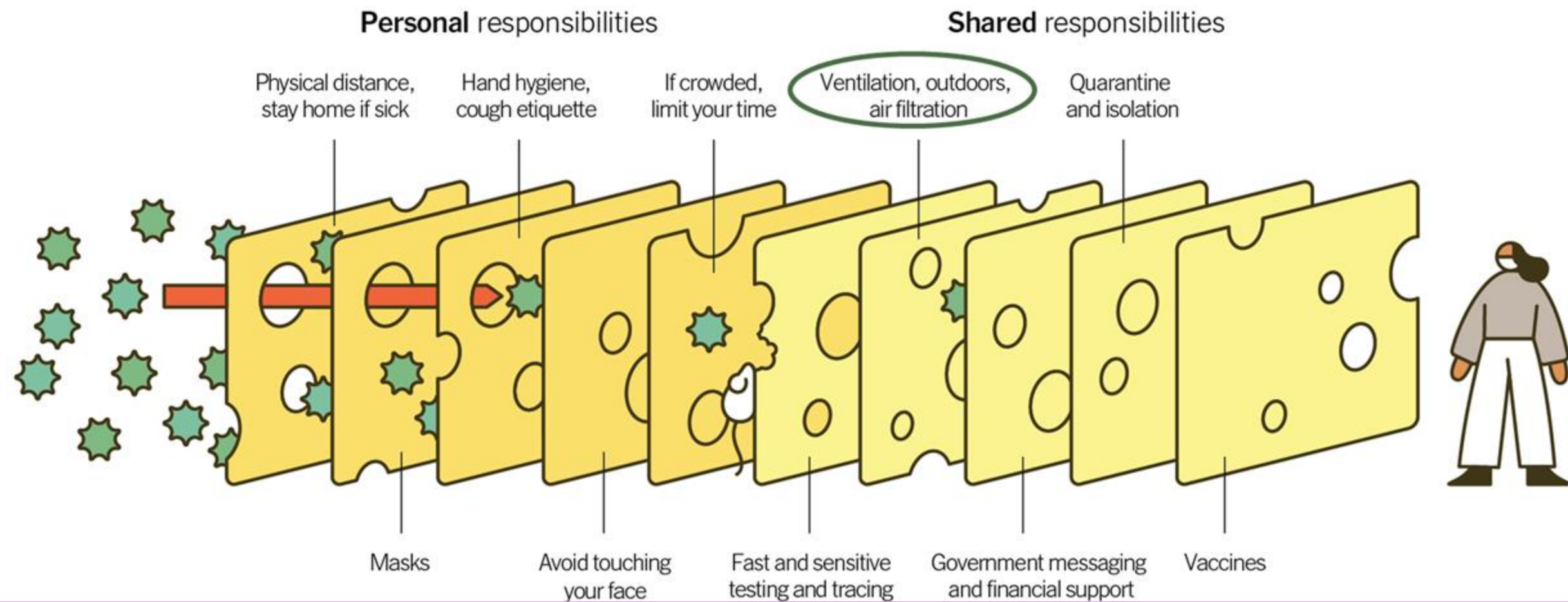


www.airnow.gov

Xasuuso! Ilaalinta bulshadaada, qoyskaaga iyo macaamiishaada waxay qaadataa tillaabo oo ku-darista dhawr lakab oo ilaalin ah waxay hormarisaa guusha. Tillaabooyinka waxaa ka mid ah joogidda guriga markaad jiran tahay, xirashada maaskaro meelaha dadweynaha, iyo hawo-socod fiican meelaha gudaha ah markii la joogo.

Multiple Layers Improve Success

The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.



Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason. Illustration by Rose Wong

Mahadsanid

Public Health
Seattle & King County



<https://kingcounty.gov/covid/air>
