



Flooding and Extreme Storms Resource Sheet



This document contains hyperlinks to online and downloadable resources. If you discover any broken links, please contact the authors at climateandhealth@sfdph.org.



This resource sheet is intended to be a living document. If there are additional services or resources you think should be included, please contact the authors at climateandhealth@sfdph.org.

Contents

Programs and Services

Emergency Services	2
Health Services	2
Information Services	3
Other Local and National Preparedness and Resilience Services	4

Online and Downloadable Resources

Resource Type Glossary	5
Resources to understand the connection between climate change and public health	6
Resources to understand and identify the health impacts of flooding and extreme storms	7
Resources to identify populations vulnerable to flooding and extreme storms	8
Resources to develop a flooding and extreme storm preparedness plan	9
Resources to prepare homes against flooding and in-home dampness	10
Resources to communicate climate preparedness	10
Resources to safely identify and remediate mold	11



Programs and Services

EMERGENCY SERVICES

911

Description: 9-1-1 is the City emergency hotline for Police, Fire, and Ambulance services.

Contact Information:

Phone: 9-1-1

Programs and Services

HEALTH SERVICES

Pediatric Asthma and Allergy Clinic

San Francisco Health Network's Chest Clinic

San Franciscans with unmanaged or undermanaged respiratory health conditions can be referred to the San Francisco Health Network's chest clinic. The chest clinic services includes pulmonary evaluation, disease management, patient education, and referral to resources that provide home visits and legal aid. The Pediatric Asthma and Allergy Clinic provides similar resources, and is open to **referrals** through the eConsult Rubicon Link.

Contact Information:

Phone: (415) 206-8494

Website: <https://www.sfhealthnetwork.org/need-to-visit-a-specialist-doctor/pulmonary/>

Children's Environmental Health Promotion program, San Francisco Department of Public Health

SFDPH's Children's Environmental Health Promotion (CEHP) program promotes conditions optimal for children's health and development. Services include environmental assessment in homes of asthma patients referred by their health care providers, education, and supplies for environmental risk factor control.

Contact Information:

Website: <https://www.sfdph.org/dph/EH/CEHP/default.asp>



Programs and Services

INFORMATION SERVICES

311

3-1-1 is the City non-emergency hotline for San Francisco residents, visitors, and businesses seeking general information or to make service requests.

Contact Information:

Phone: 3-1-1

Website: <https://sf311.org/>

SF72

SF72 is operated by the San Francisco Department of Emergency Management and acts as the City’s emergency information portal. This site contains guidance on how to develop an emergency preparedness plan, where to go for emergency updates, and how to connect to the City’s emergency resources.

Contact Information:

Website: www.sf72.org

Twitter: @SF72org, @SF_emergency

AlertSF Text Service

AlertSF is a text-based notification system for San Francisco’s residents and visitors. AlertSF will send text alerts and information before, during, and after emergencies to registered wireless devices or email accounts.

Contact Information:

Patients should be encouraged to sign up for AlertSF at: <https://member.everbridge.net/index/453003085612609#/login>

Patients can also sign up for Alert SF by texting ‘AlertSF’ to 888-777



Programs and Services

OTHER LOCAL AND NATIONAL PREPAREDNESS AND RESILIENCE SERVICES

RainReadySF, San Francisco Public Utilities Commission

RainReadySF, administered by the San Francisco Public Utilities Commission, compiles information about how to stay safe during extreme storm events, including where to listen for emergency advisories and how residents can protect themselves and their property.

Contact Information:

Website: www.sfwater.org/rainreadysf

Sand Bags Distribution, Department of Public Works

The San Francisco Department of Public Works provides sandbags leading up to and during severe rainstorms.

Contact Information:

Website: <https://sfpublicworks.org/sandbags>

FEMA National Flood Insurance Program

The National Flood Insurance Program provides insurance to property owners, renters, and businesses and encourages communities to adopt and enforce floodplain management regulations.

Contact Information:

Website: <https://www.fema.gov/national-flood-insurance-program>

Department of Aging and Adult Services

The San Francisco Department of Aging and Adult Services coordinates services for older adults, veterans, people with disabilities, and their families to maximize safety, health, and independence. The Department of Aging and Adult Services helps clients access services and benefits, care and support (including in home supportive services) and senior and activity centers.

Contact Information:

Phone: (415) 557-5000

Website: <https://www.sfhsa.org/about/departments/department-aging-and-adult-services-daas>

San Francisco Mayor’s Office on Disability

The Mayor’s Office on Disability (MOD) ensures that every program, service, benefit, activity, and facility operated or funded by the City and County of San Francisco is fully access to, and usable by, people with disabilities.

Contact Information:

Phone: (415) 554-6789

Website: <https://sfgov.org/mod>

Neighborhood Empowerment Network (NEN)

The Neighborhood Empowerment Network is an alliance of residents, neighborhood and merchant associations, nonprofits, faith-based organizations, foundations, and academic institutions that work collectively to support communities as they achieve resilience.

Contact Information:

Phone: (415) 554-7114

Website: <http://www.empowersf.org>

Low Income Home Energy Assistance Program (LiHEAP)

LiHEAP is a federally funded program overseen by the California Department of Community Services and Development that can help with residential utility bill payment, emergency assistance during energy-related crises, and home weatherization. San Francisco residents may apply for utility payment assistance and energy efficiency services with Central Coast Energy Services. Central Coast Energy Services is providing LiHEAP services on an interim basis until a permanent provider is identified.

Contact Information:

Utility Payment Assistance: (415) 749-5600

Emergency Services: (415) 749-5600

Energy Efficiency & Weatherization Services: (415) 749-5600

Application: <https://www.caliheapapply.com>

Low Income Weatherization Program (LiWP)

For low income patients in single family or mobile homes, LiWP will help homeowners and renters lower their monthly utility bills. This program is funded by the California Climate Investments Initiative. The local administrator for LiWP is Build It Green.

Contact Information:

Website: <https://betterhomeliwp.org>



Online and Downloadable Resources

RESOURCE TYPE GLOSSARY



Issue Summary Document

Issue Summary Documents provide a high-level, comprehensive overview of the particular issue. An Issue Summary Document is as an informational resource to facilitate the development of informed resilience and preparedness strategies.



Outreach and Engagement

Outreach and Engagement materials are short documents that graphically and concisely convey information for the purpose of educating patients. These resources include posters, infographics, and other media.



Guidance Document

Guidance Documents are explanatory manuals to instruct users how to implement resilience and preparedness strategies. These resources include checklists and toolkits.



News Article

News Articles are resources that summarize current events and synthesize relevant research.



Research

Research resources include academic journals, City-developed plans and reports, and other evidenced-based documents.



Online and Downloadable Resources

RESOURCES TO UNDERSTAND THE CONNECTION BETWEEN CLIMATE CHANGE AND PUBLIC HEALTH



Issue Summary Document, PDF

Center for Climate Change and Public Health, Rainfall & Storms, Climate Change and Health

Audience: Clinicians

This Center for Climate Change and Public Health three-page issue summary document provides information on: 1) how climate change will increase extreme precipitation events, 2) the health impacts of flooding and extreme storms, 3) populations most vulnerable to extreme storm events and, 4) best practices for clinicians.

Hyperlink:

<http://climatehealthconnect.org/wp-content/uploads/2016/09/RainfallStorms.pdf>



Issue Summary Document

BARHII, Climate Change Quick Guides

Audience: Clinicians, Patients

These five short guides explore public health as an equity issue and examine the environmental and health co-benefits of climate change action.

Hyperlink:

<http://barhii.org/resources/climate-change-quick-guides>



Outreach and Engagement

Center for Climate Change and Health, Climate and Health Posters

Audience: Patients

These 18 x 24 posters were developed by the Center for Climate Change and Health to help make the connections between climate change and public health. Relevant posters include ‘Climate Change, Asthma, & You’.

Hyperlink:

<https://nca2018.globalchange.gov/chapter/13/>



Research

U.S. Global Change Research Program, 2018 Climate and Health Assessment: Human Health

Audience: Clinicians, Patients

The 2018 National Climate Assessment chapter assesses how climate change will modify health outcomes, identifies vulnerable populations, and inventories adaptation and mitigation strategies to reduce exposure.

Hyperlink:

<https://nca2018.globalchange.gov/chapter/14/>



Research

Journal of Environmental and Public Health, Health Effects of Coastal Storms and Flooding in Urban Areas: A Review and Vulnerability Assessment

Audience: Clinicians

This 2013 literature review from the New York City Department of Health and Mental Hygiene compiles information about the health impacts of extreme precipitation in urban areas, including examinations of the health impacts of Hurricane Sandy and Hurricane Katrina.

Hyperlink:

<https://www.hindawi.com/journals/jeph/2013/913064/>



Online and Downloadable Resources

RESOURCES TO UNDERSTAND AND IDENTIFY THE HEALTH IMPACTS OF FLOODING AND EXTREME STORMS



Outreach and Engagement, PDF

SFDPH Climate and Health Program, Health Impacts of Climate Change: Mold Respiratory Illness and How to Protect Yourself

Audience: Patients

This online resource examines how flooding and extreme storms impact public health, outlines the health impacts of mold exposure, and links to local mold and asthma resources.

Hyperlink:

<https://insight.livestories.com/s/health-impacts-of-climate-change-mold-and-respiratory-illness/567b2bb962b12600174b9e02/>



Issue Summary Document

CDC, Facts about Mold and Dampness

Audience: Clinicians, Patients

This CDC fact sheet examines how exposure to mold and in-home dampness can impact public health and identifies best practices to identify and control mold.

Hyperlink:

https://www.cdc.gov/mold/dampness_facts.htm



Research

Environmental Health Perspectives, Health Impacts of Citywide and Localized Power Outages in New York City

Audience: Clinicians

This 2018 study examines the relationship between localized power outages, weather, and hospitalizations in New York City. The investigation concluded that localized power outages are linked to increases in all-cause mortality. Warm weather power outages were associated with renal disease hospitalizations and cold weather power outages were associated with cardiovascular disease hospitalizations. Researcher hypothesized that the increase in cardiovascular disease hospitalizations could be related to increased physical activity due to transportation disruption and stress.

Hyperlink:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6084843/>



Issue Summary, PDF

CDPH, Statement on Building Dampness, Mold, and Health

Audience: Clinicians, Patients

This resource summarizes California Department of Public Health research that connects exposure to mold and dampness to health impacts. The resources states that “the presence of visible mold will be added to the list of conditions in the California Housing Code, already including dampness of habitable rooms, that make housing substandard”

Hyperlink:

[https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHIB/CPE/CDPH/Document Library/Mold/DMH_Stmt_ENG.pdf](https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHIB/CPE/CDPH/Document%20Library/Mold/DMH_Stmt_ENG.pdf)



Research

Public Library of Science, The Effects of Flooding on Mental Health: Outcomes and Recommendations from a Review of the Literature

Audience: Clinicians

This literature review assessed evidence and guidance on the link between flood events and psychosocial and mental health needs.

Hyperlink:

<http://currents.plos.org/disasters/index.html%3Fp=1947.html>



Online and Downloadable Resources

RESOURCES TO IDENTIFY POPULATIONS VULNERABLE TO FLOODING AND EXTREME STORMS



Research, PDF

SFDPH Climate and Health Program, Flood Health Vulnerability Assessment

Audience: Clinicians, Patients

This 2016 vulnerability assessment uses exposure, vulnerable population, health, and infrastructure data to assess which San Francisco neighborhoods are most vulnerable to the health impacts of flooding and extreme storms.

Hyperlink:

https://sfclimatehealth.org/wp-content/uploads/2018/12/FloodVulnerabilityReport_v5.pdf.pdf



Outreach and Engagement

SFDPH Climate and Health Program, Flood Health Interactive Vulnerability Story Map

Audience: Clinicians, Patients

This interactive story map helps users understand 1) how exposure, living conditions, health conditions, and social factors contribute to vulnerability to flooding and extreme storms and; 2) the spatial distribution of these vulnerable populations.

Hyperlink:

<http://sfgov.maps.arcgis.com/apps/MapJournal/index.html?appid=69004eefbb3f4a27aa8b6c6566f8dc0b>



Outreach and Engagement

CDC, Information for Specific Groups

Audience: Clinicians, Patients

This collection of emergency preparedness materials provides targeted information for older adults, expectant and new parents, evacuees, children, people with chronic illnesses, people with disabilities, people experiencing homelessness, and tribal communities.

Hyperlink:

<https://emergency.cdc.gov/groups.asp>



Online and Downloadable Resources

RESOURCES TO DEVELOP A FLOODING AND EXTREME STORM PREPAREDNESS PLAN



Guidance Document

SF72 Emergency Plan Checklists

Audience: Patients

From the San Francisco Department of Emergency Management, this site links to downloadable multilingual emergency planning checklists.

Hyperlink:

<https://www.sf72.org/plan>



Outreach and Engagement, PDF

SFDPH Climate and Health Program, Flood and Extreme Storm Training Presentation

Audience: Clinicians, Patients

The ‘Preparing for Rain and Flooding In San Francisco’ presentation examines the pathways that connect sea level rise and extreme storms to public health, and identifies simple steps for San Franciscans to prepare for these health impacts. The presentation comes with a slide deck and companion presenter notes.

Hyperlink:

https://sfclimatehealth.org/wp-content/uploads/2018/12/Preparedness-Presentation_Rain-and-Flooding_2018.06.12.pdf



Guidance Documents

CDC, Plan Ahead Emergency Action Plan Guidance

Audience: Patients

This CDC resource provides guidance on how to stay healthy, stay informed, and stay in contact to stay safe during emergencies. This resource also provides contact information to emergency helplines.

Hyperlink:

<https://www.cdc.gov/cpr/prepareyourhealth/PlanAhead.htm>



Outreach and Engagement

CDC, Key Facts About Flood Readiness

Audience: Patients

This website identifies best practices to prepare for a storm, and includes the infographic: Be Ready! Floods. <https://www.cdc.gov/phpr/infographics/br-floods.htm>

Hyperlink:

<https://www.cdc.gov/disasters/floods/readiness.html>



Outreach and Engagement

Ready.Gov Power Outage Preparedness Resource

Audience: Patients

This FEMA poster identifies best practices to protect yourself during a power outage, and includes information on how to avoid carbon monoxide poisoning, food poisoning, and electrical surges.

Hyperlink:

<https://www.ready.gov/power-outages>



Online and Downloadable Resources

RESOURCES TO PREPARE HOMES AGAINST FLOODING AND IN-HOME DAMPNES



Guidance Document

SF Department of Environment, Toxics and Health

Audience: Clinicians, Patients

This Department of Environment resource is an inventory of guidance documents on how to replace and safely dispose of household toxics.

Hyperlink:

<https://sfenvironment.org/toxics-health>



Guidance Document

SFDPH Children’s Environmental Health Promotion, “Make A Healthy Home For Your Child” Video

Audience: Patients

This video identifies best practices to protect your home against flooding and in-home dampness.

Hyperlink:

<https://www.youtube.com/watch?v=7A56JwN4cao>

Online and Downloadable Resources

RESOURCES TO COMMUNICATE CLIMATE PREPAREDNESS



Issue Summary Document, PDF

Center for Climate Change and Health, A Physician’s Guide to Climate Change, Health, and Equity

Audience: Clinicians

This comprehensive resource explores the connection between climate change and public health, and opportunities for physicians to strengthen their voice as climate advocates.

Hyperlink:

<http://climatehealthconnect.org/resources/physicians-guide-climate-change-health-equity/>



Guidance Document, PDF

Let’s Talk Health and Climate: Communication Guidance for Health Professionals

Audience: Clinicians

This guidance document, developed by ecoAmerica and Climate for Health, synthesizes academic research to provide message tested phrases and talking points to advance climate health communications.

Hyperlink:

https://ecoamerica.org/wp-content/uploads/2017/03/3_letstalk_health_and_climate.pdf



Online and Downloadable Resources

RESOURCES TO SAFELY IDENTIFY AND REMEDIATE MOLD



Guidance Document, PDF

SFDPH Children’s Environmental Health Promotion, Take Action Against Mold Information Sheet

Audience: Patients

This SFDPH Environmental Health guidance document identifies best practices to prevent household condensation, dampness, and mold.

Hyperlink:

English: https://sfclimatehealth.org/wp-content/uploads/2018/12/Mold_ENG-06.16.pdf

Spanish: https://sfclimatehealth.org/wp-content/uploads/2018/12/Mold_SPN-06.16.pdf

Chinese: https://sfclimatehealth.org/wp-content/uploads/2018/12/Mold_CHN-06.16.pdf



Guidance Document, PDF

SFDPH Climate and Health Program, Mold Health Guidance Document

Audience: Patients

This SFDPH resource inventories best practices, programs, and other resources to help residents safely identify and remediate mold, and identify mold-related illnesses.

Hyperlink:

<https://sfclimatehealth.org/wp-content/uploads/2018/12/MoldHealthGuidance.pdf>



Outreach and Engagement, PDF

CDC, 8 Tips to Clean Up Mold Infographic

Audience: Patients

This infographic is available in eight different languages and provides best practices to identify and remediate mold.

Hyperlink:

<https://www.cdc.gov/cpr/infographics/8tipstocleanupmold.htm>



Guidance Document, PDF

California Department of Consumer Affairs, California Tenants: A Guide to Resident Tenants’ and Landlords’ Rights and Responsibilities

Audience: Patients

The “California Tenants” booklet is a practical resource for both tenants and landlords. The guide provides information about rental applications, unlawful discrimination, security deposits, repair responsibilities, rent increases, termination of leases, and eviction notices.

Hyperlink:

<http://www.hcd.ca.gov/manufactured-mobile-home/mobile-home-ombudsman/docs/Tenant-Landlord.pdf>



Outreach and Engagement

CDPH, Frequently Asked Questions about Mold

Audience: Clinicians, Patients

This FAQ document provides a comprehensive overview about the connection between mold and health, mold testing, and how to remediate mold.

Hyperlink:

<https://www.cdph.ca.gov/Programs/CCDPPH/DEODC/EHLB/IAQ/Pages/Mold-FAQs.aspx>