Indoor Air Quality and Public Health

WELLNESS INSTITUTE/HEALTH COUNCIL RECOMMENDATIONS

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Wellness Institute

• Serves as the local health council (state designation and funding)
• Doña Ana County HHS is administrate support/backbone
• Community Foundation of Southern New Mexico is fiscal agent
• Over 40 members - local health care, social service, education and public health members
Policy Brief

Need for effective, evidence-based policy actions for improving indoor air quality.

1) Indoor air quality is a direct determinant of health and wellness that affects all aspects of physical, mental, and cognitive health; and

2) Improving indoor air quality is a necessary step toward stemming the spread of COVID-19.
Goals

Reduce the spread of COVID-19 while supporting economic, civic, and other social activities.

Improve overall health and wellness, especially for populations at most risk of poor health outcomes.
Improving Indoor Air Quality

**Ventilation** - intentional introduction of outdoor air into a building to control air contaminants

**Filtration** - removal of particles from the air by passing it through a filter
Recommended Action

- **Inspection and Standards.** Follow indoor air quality standards developed by ASHRAE (2021) and require annual inspection.

  1. **Ventilation:** The measure of air changes per hour (ACH) is used to quantify air flow. All buildings should meet a minimum standard of 6 ACH.

  2. **Filtration:** Use of MERV 13 or better filtration, with professional ongoing maintenance.

  3. **Air Quality Monitoring:** Use continuous CO$_2$ monitoring to assure <1,000 ppm CO$_2$ or lower
     a. CO$_2$ monitoring should be required of all public and private businesses, government, and other indoor settings where people gather.
     b. CO$_2$ readings should be publicly available in real time
     c. CO$_2$ readings higher than 1,000 ppm must be mitigated immediately, and long-term mitigation measures put in place within 30 days.
Recommended Action

**Educate.** Provide health-literate education about aerosol transmission of disease and appropriate mitigation measures. These measures should include:

1. **Masking:** People should be educated about how masking reduces the spread of COVID-19.
2. **Ventilation:** Information and training should be available about the importance of ventilation, including low-cost strategies for improving ventilation (e.g. opening windows and properly placing fans).
3. **Filtration:** Information and training should be available about the importance of air filtration, including instructions in why and how to build and use a “Do-It-Yourself” filtration device (i.e. Corsi-Rosenthal box).
4. **Assessing Risk:** Different situations pose different risks. All residents should have easy access to information about risks, which can help them to make informed decisions.
Recommended Action

- **Certification.** All commercial indoor spaces should be required to publicly display air handling inspection certificate.
- **HVAC.** All new buildings should be required to have mechanical ventilation (HVAC) systems installed and operational. Systems should be inspected at least yearly by a certified professional.
- **Occupancy Rates.** Occupancy rates should be based on the ability to appropriately ventilate indoor spaces. As more people enter a room, the amount of “rebreathed air” increases, increasing risk of virus particles reaching infectious levels.
- **Rental Properties.** All rental properties should be held to standards for ventilation that maintain CO₂ levels at 1,000 ppm and air changes per hour (ACH) to 6 or more.
- **Transportation.** Vehicles should be considered indoor environments for the purposes of air quality.
What You Can Do

• Voluntarily inspect and if need upgrade government buildings and transportation vehicles
• Allocate funds (ARPA) to incentives local business to do the same
• Advocate at the state level in support of policy recommendations and accountability
• Promote healthy indoor air quality education – awareness and education campaigns