

Radon Policy Recommendations in the North Carolina State Health Improvement Plan (NC SHIP)

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SHIP Community Council



Where we are headed

State Health Improvement Planning Process

NC SHIP Community Council

Life Expectancy as an Indicator

Inclusion of Radon Policy

Why it matters

Going Local

The image shows the cover of a report titled "HEALTHY NORTH CAROLINA 2030: A PATH TOWARD HEALTH". The cover has a dark blue background. At the top, it says "JANUARY 2020". Below that, the title "HEALTHY NORTH CAROLINA" is written in white, followed by "2030" in a very large font. To the right of "2030" is a white silhouette of the state of North Carolina. Below the title, it says "A PATH TOWARD HEALTH". A horizontal orange band across the middle contains the text: "FUNDED BY THE BLUE CROSS AND BLUE SHIELD OF NORTH CAROLINA FOUNDATION, THE DUKE ENDOWMENT, AND THE KATE B. REYNOLDS CHARITABLE TRUST". At the bottom, the logo for "NCIOM North Carolina Institute of Medicine" is displayed. Below that, it says "In partnership with" followed by the logo for the "NC DEPARTMENT OF HEALTH AND HUMAN SERVICES Division of Public Health". Large, faint letters "NHC" are visible in the background on the right side.

JANUARY 2020

HEALTHY NORTH CAROLINA

2030

A PATH TOWARD HEALTH

FUNDED BY THE BLUE CROSS AND BLUE SHIELD OF NORTH CAROLINA FOUNDATION,
THE DUKE ENDOWMENT, AND THE KATE B. REYNOLDS CHARITABLE TRUST

 **NCIOM**
North Carolina Institute of Medicine

In partnership with

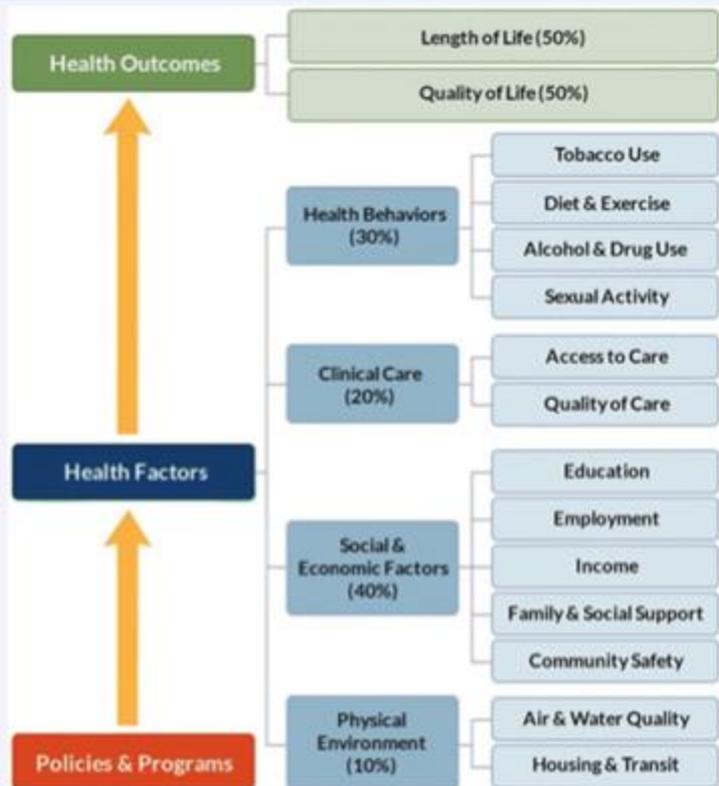
 NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**
Division of Public Health

Aim of Healthy North Carolina

To develop a common set of goals and objectives to mobilize and direct state and local efforts to improve the health and well-being of North Carolinians.



Healthy North Carolina 2030: Framework and Organization

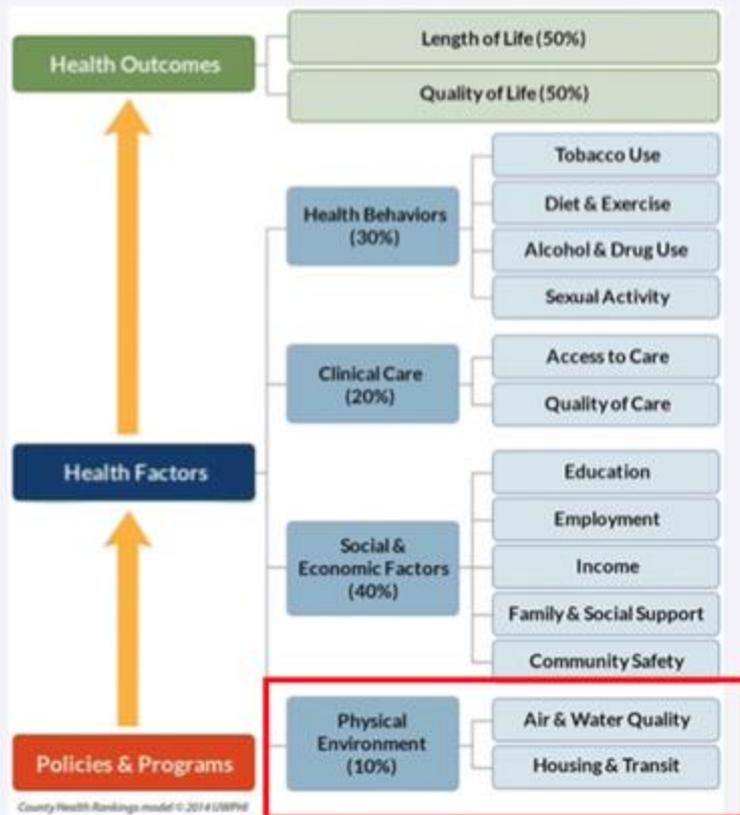


County Health Rankings model © 2014 USPHS

- Develop 20 indicators
- Healthy North Carolina 2030 Task Force
 - Select the Health Outcomes indicators and review other indicators selected by work groups
- Healthy North Carolina 2030 Work Groups
 - Work groups for each topic area will select indicators in those topics
- Healthy North Carolina 2030 Community Input Sessions
 - Meetings held February-April of 2018



Physical Environment Small Group Discussion



2 Physical Environment indicators will be included on the final list of 20 for HNC 2030

Physical Environment Small Group Discussion

HNC 2030 – Potential Physical Environment Indicators

Table # _____

On your own: Please rank these indicators by importance to you and your community with "1" being the most important.

Ranking (1-6)	Indicator	Definition
	Housing cost burden	Percent of households spending 30% or more of household income on housing costs
	Housing quality problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities
	Food environment index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best) and equally weights two indicators of the food environment (see information below)
	Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity. Locations for physical activity are defined as parks or recreational facilities
	Air pollution	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)
	Blood lead levels	Percent of children tested with blood lead levels BLLs > 5ug/dl
Missing indicators – Are there important indicators that you think are missing from this list?		

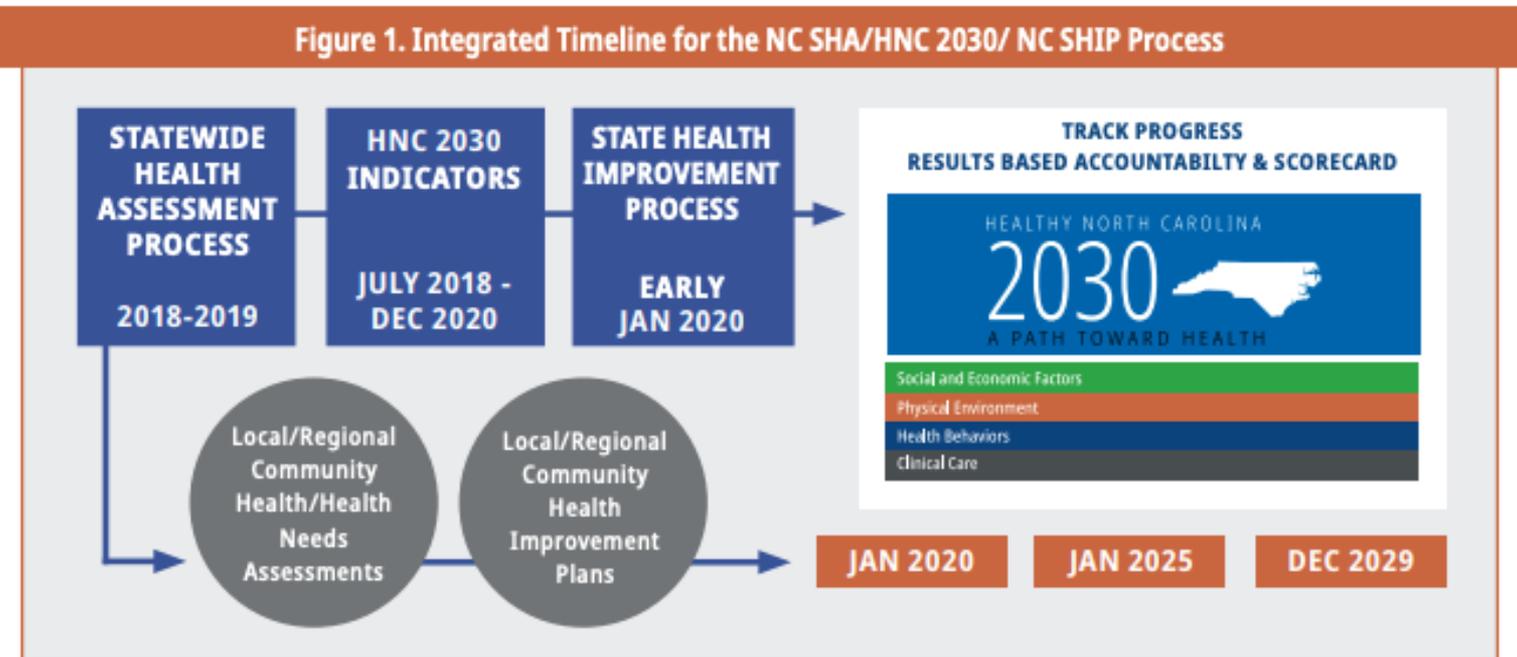
Small group discussion: Discuss these indicators and decide on the TOP 3 priority Physical Environment indicators from this list.

Write the indicator names in the spaces below.

1. _____
2. _____
3. _____

State Health Assessment to Healthy People to State Health Improvement

Figure 1. Integrated Timeline for the NC SHA/HNC 2030/ NC SHIP Process





NORTH CAROLINA STATE HEALTH IMPROVEMENT PLAN

Figure 5. *HNC 2030* indicators categorized according to a population health framework (Health Factors/Health Outcomes)

HEALTH FACTORS (19)

- Social and Economic Factors (6)
 - Poverty
 - Unemployment
 - Short-term Suspension
 - Incarceration Rate
 - Adverse Childhood Experiences
 - Third Grade Reading Proficiency
- Physical Environment Factors (3)
 - Access to Exercise Opportunities
 - Limited Access to Healthy Food
 - Severe Housing Problems
- Health Behaviors (6)
 - Drug Overdose Deaths
 - Tobacco Use
 - Excessive Drinking
 - Sugar-Sweetened Beverage Consumption
 - HIV Diagnosis Rate
 - Teen Birth Rate
- Clinical Care Factors (4)
 - Uninsured
 - Primary Care Workforce
 - Early Prenatal Care
 - Suicide Rate

HEALTH OUTCOMES (2)

- Infant Mortality
- Life Expectancy

A companion report to Healthy North Carolina 2030: A Path Toward Health (NCIOM) and the 2019 North Carolina State Health Assessment

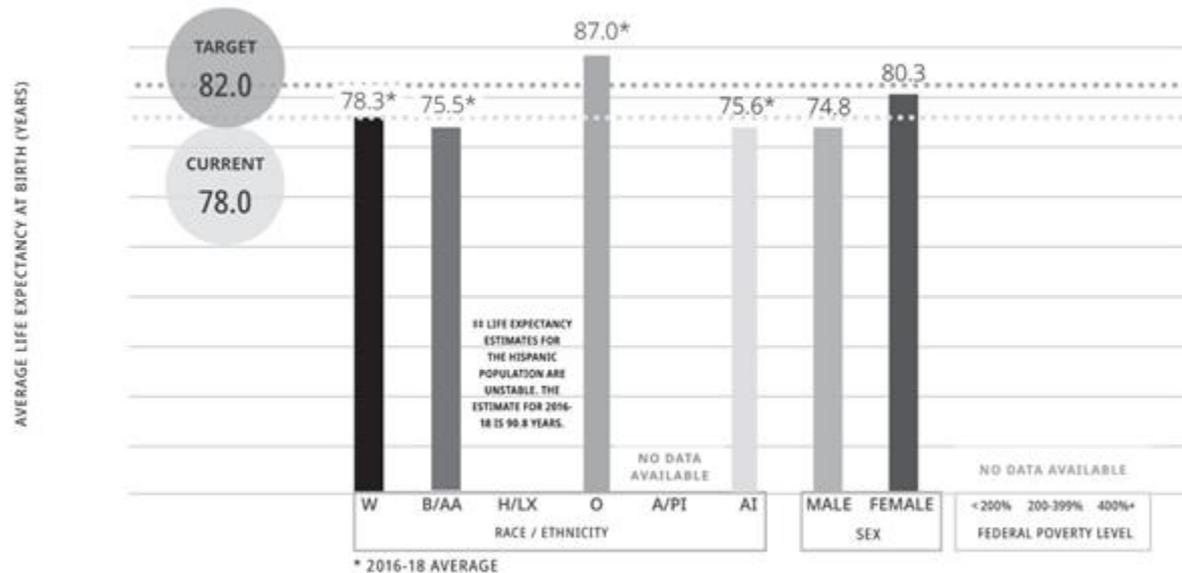
NC State Health Improvement Plan Community Council

NC SHIP: The North Carolina State Health Improvement Plan (NC SHIP) operationalizes the priorities identified in the 2019 State Health Assessment and Healthy North Carolina 2030: A Path Toward Health. The plan identifies best practices that can help communities act now to improve health. The [2022 NC SHIP](#) is now available. Life expectancy indicator on pages 116-119.

WHAT RESULT DO WE WANT?

All people in North Carolina have long and healthy lives.

Life Expectancy Across Populations in North Carolina and Distance to 2030 Target Source.



Kaitlin Ugolik Phillips North Carolina Medical Journal
2022;83:357-360

Our Purpose

The purpose of the NC SHIP Community Council is to advance the policy agenda for the Healthy North Carolina 2030 (HNC 2030) population indicators. The individual indicator work groups will review the proposed policies for their indicator, prioritize the policies, discuss strategies, and develop action plans.

Life Expectancy Indicator

BASELINE DATA FROM HNC 2030



HOW ARE WE DOING?

- The target for *HNC 2030* is 82 years.
- The three-year average for life expectancy decreased across all race/ethnicities in 2018-2020.

Life Expectancy in the U.S. Dropped for the Second Year in a Row in 2021

[Print](#)

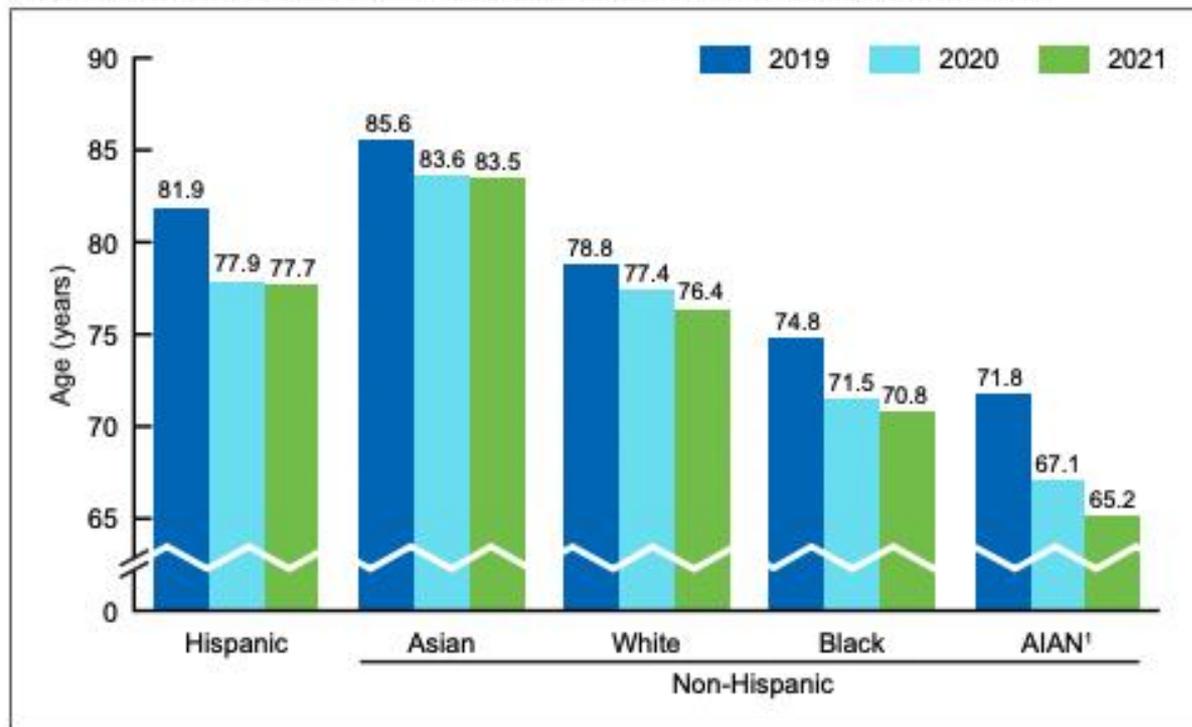
For Immediate Release: August 31, 2022

Contact: CDC, National Center for Health Statistics, Office of Communication (301) 458-4800

E-mail: paoquery@cdc.gov

Life expectancy at birth in the United States declined nearly a year from 2020 to 2021, according to new provisional data from the CDC's National Center for Health Statistics (NCHS). That decline – 77.0 to 76.1 years – took U.S. life expectancy at birth to its lowest level since 1996. The 0.9 year drop in life expectancy in 2021, along with a 1.8 year drop in 2020, was the biggest two-year decline in life expectancy since 1921-1923.

Figure 2. Life expectancy at birth, by Hispanic origin and race: United States, 2019–2021



¹American Indian or Alaska Native.

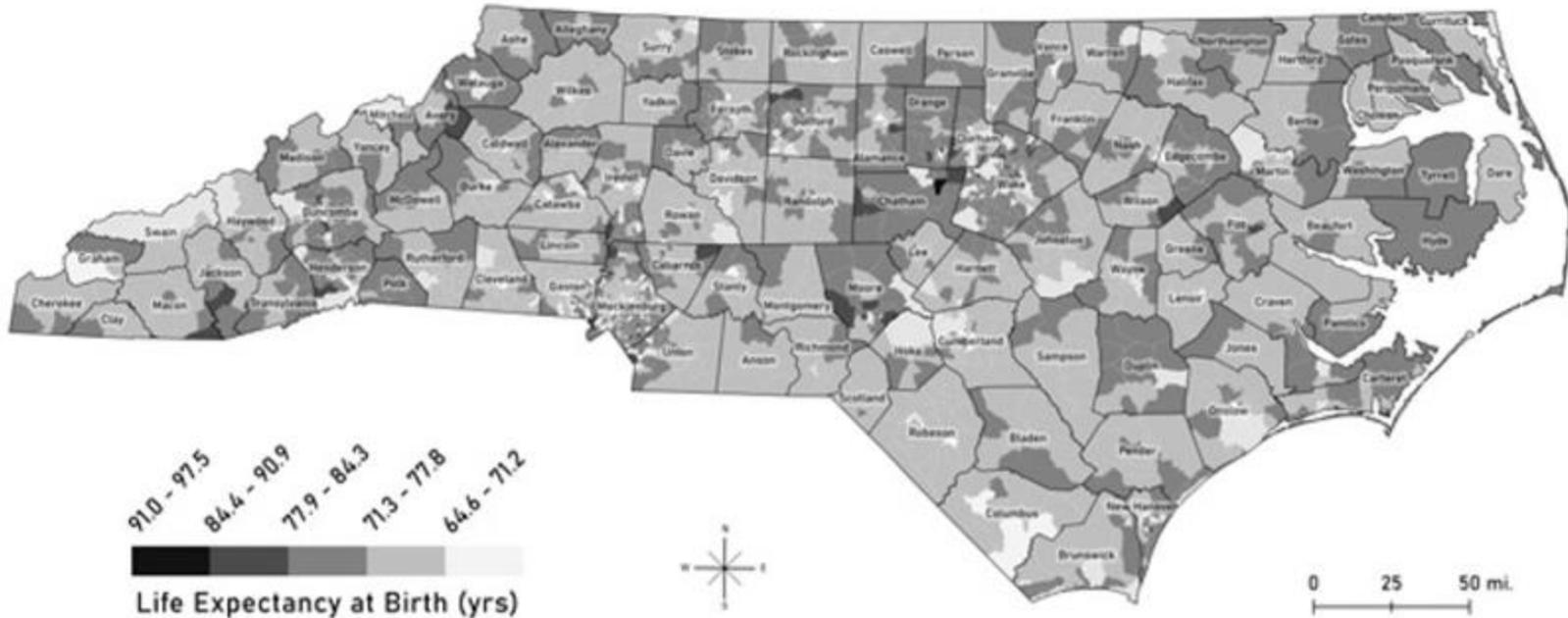
NOTES: Estimates are based on provisional data for 2021. Provisional data are subject to change as additional data are received. Estimates for 2019 and 2020 are based on final data. Life tables by race and Hispanic origin are based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Life Expectancy in NC—NC Medical Journal, Sept 2022

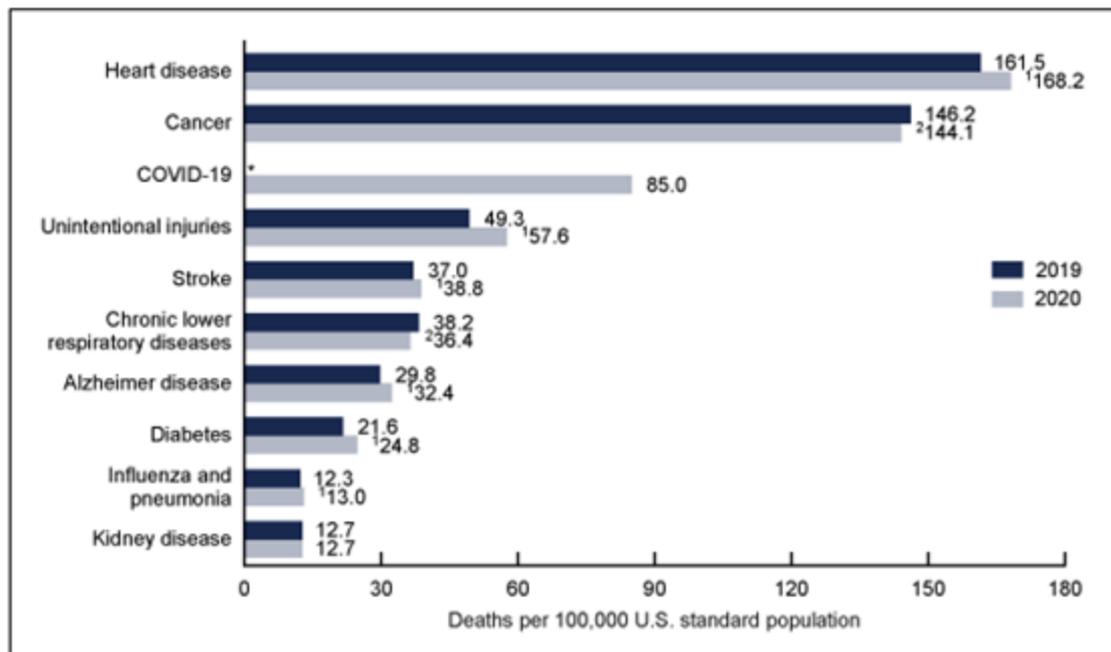
Place-based differences in life expectancy—Sugg, Margaret M., Lauren M. Andersen, and Jennifer D. Runkle. 2022. “Sidebar: Place-Based Differences in Life Expectancy.” *North Carolina Medical Journal* 83 (5): 325–26. <https://doi.org/10.18043/ncm.83.5.325>.

Life Expectancy in North Carolina



Top Causes of Death in the US 2020

Figure 4. Age-adjusted death rates for the 10 leading causes of death in 2020: United States, 2019 and 2020



*COVID-19 became an official cause of death in 2020; rates for 2019 are not applicable.

¹Statistically significant increase in age-adjusted death rate from 2019 to 2020 ($p < 0.05$).

²Statistically significant decrease in age-adjusted death rate from 2019 to 2020 ($p < 0.05$).

Priorities identified to address life expectancy in the NC State Health Improvement Plan

WHAT COULD WORK TO TURN THE CURVE?

- Assess and increase access to medical and community services for people with Alzheimer's disease and related dementia through improved transportation services, telehealth services, and incentives for new models of care
- Build and expand key metrics, reporting, and dashboards that identify and monitor health disparities in key health outcomes to drive action and provide transparency into health equity initiatives
- Cultivate collaboration between multidisciplinary professionals to reduce falls and fall-related injuries
- Establish and fund a comprehensive, integrated state data infrastructure using a population health model to assure the timely identification, collection, analysis, integration, visualization, and dissemination of data from global, national, state, and local resources
- Foster partnerships to increase awareness of fall risk factors and advance access to fall prevention interventions
- Improve access to free radon test kits, particularly to historically marginalized populations
- Support the North Carolina Housing Finance Agency by increasing grant funds to support the installation of radon mitigation systems among homeowners financially eligible

Where did these proposed policies come from?

Many of the proposed policies were originally suggested in HNC 2030: A Path Toward Health, and others were voiced by the NC SHIP Community Council members and community stakeholders July-September 2021.

Some of the policies are also those included in the Robert Wood Johnson Foundation County Health Rankings & Roadmaps Evidence Library of “What Works for Health” - <https://www.countyhealthrankings.org/takeaction-to-improve-health/what-works-for-health>.

Physical Environment Small Group Discussion

HNC 2030 – Potential Physical Environment Indicators

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	Food environment index	Index of factors that contribute to a healthy food environment, 0 (worst) to 100 (best) and equally weights two indicators of the food environment (see information below)
	Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity
	Air pollution	Locations for physical activity are defined as parks or recreational facilities
	Blood lead levels	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)
		Percent of children tested with blood lead levels 10-149/100

Small group discussion: Discuss these indicators and decide on the TOP 3 priority Physical Environment indicators from this list. Write the indicator names in the spaces below.

- _____
- _____
- _____

5 min. →

15 min. →



Evidence Rating ⓘ

✓+ Some Evidence

Strategies with this rating are likely to work, but further research is needed to confirm effects. These strategies have been tested more than once and results trend positive overall.

Health Factors ⓘ

Housing and Transit

Decision Makers

[Health Care](#)

[Government](#)

[Public Health](#)

[Community Development](#)

Date last updated

Dec 11, 2018

Radon mitigation programs

[Print this strategy](#)

[Bookmark this strategy](#)

Radon mitigation programs support systems and technologies designed to prevent radon from entering occupied buildings and lowering existing indoor air radon levels. Radon mitigation systems can include subslab depressurization (SSD), which depressurizes soil using a vent pipe system and a fan; sealing cracks and openings in building foundations; home or room pressurization; heat recovery ventilation; or natural ventilation¹. Radon is a radioactive, odorless, tasteless, and colorless gas which occurs naturally in the environment. When radon escapes from soil and rocks, it creates compounds that are hazardous to health, particularly for smokers; radon is the second leading cause of lung cancer².

What could this strategy improve?

Expected Benefits

Our evidence rating is based on the likelihood of achieving these outcomes:

- Reduced radon exposure
- Improved health outcomes



Life Expectancy Priorities from NC SHIP

Falls Prevention

- Foster partnerships to increase awareness of fall risk factors and advance access to fall prevention interventions
- Cultivate collaboration between multidisciplinary professionals and organizations to reduce falls and fall-related injuries

Dementia Care

- Increase access to clinical and community services for people with Alzheimer's disease and related dementia through improved support for current ongoing work on mobility services, telehealth services, and caregiver services

Radon

- Support the North Carolina Housing Finance Agency by increasing grant funds to support the installation of radon mitigation systems among homeowners financially eligible
- Improve access to free radon test kits, particularly to historically marginalized populations

Data Infrastructure/Metrics

- Establish and fund a comprehensive, integrated state data infrastructure using a population health model to assure the timely identification, collection, analysis, integration, visualization, and dissemination of data from global, national, state, and local resources
- Build and expand key metrics, reporting, and dashboards that identify and monitor health disparities in key health outcomes to drive action and provide transparency into health equity initiatives

Strategies and Action Plan—for Radon Policy Initiatives

Radon proposed policy initiatives (from NC SHIP)

- Support the North Carolina Housing Finance Agency by increasing grant funds to support the installation of radon mitigation systems among homeowners financially eligible
- Improve access to free radon test kits, particularly to historically marginalized populations

Any revisions needed to the above?

Strategies	Tasks	Resources Needed	Agency/ Persons Responsible	Target Completion Date
What our strategy is to address/ advance this policy	What we need to do to make this strategy happen	What materials, funding, staff, and/or other assets we need to make this happen	Who is responsible for doing this task for this strategy	What date we think this task will be completed by

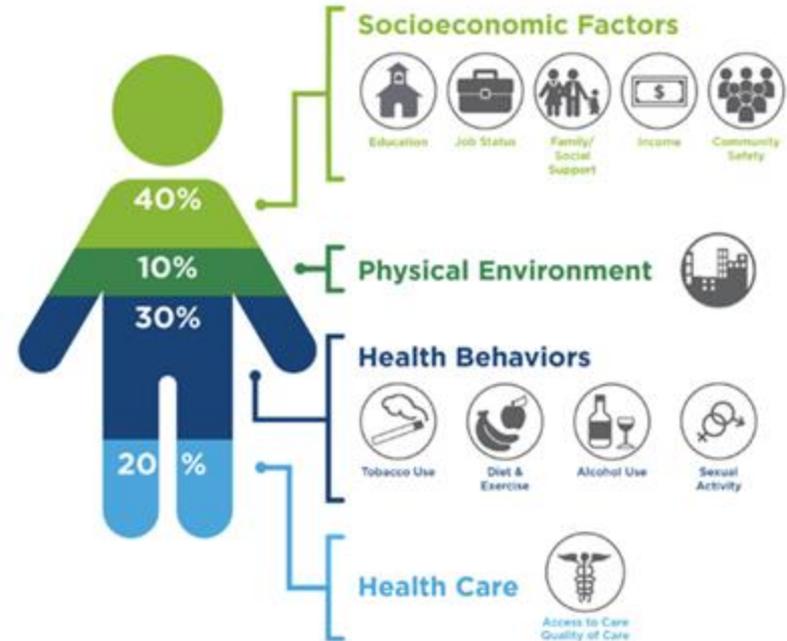
Shifts in the Radon Proposed Policy Initiatives

Current 2023-2024 policy priorities: Radon Testing and Mitigation

- Reduce exposure to radon through
 - increasing grant funds to eligible homeowners for mitigation,
 - improving access to free radon test kits and education,
 - and requiring public schools, licensed child and adult day care facilities, and long-term care facilities to test and mitigate for high levels of radon

Why does it matter?

- Getting radon in the State Health Improvement Plan brings the subject to the county health assessment level.
- Elevate attention to radon at the local level.
- Expand understanding and impact.
- Increase focus on whole person, prevention/promotion strategies, community and system level approaches to shift health (80%) and improve health outcomes.



An opportunity to *go local*...



... and inform policy makers and North Carolinians living in the western region of NC.

WNC Health Policy Initiative [Blog Post](#)

Radon in WNC: Know Your Risks

Are you or your family at risk from radon pollution? The answer might surprise you.



Photo by Kietuf Subiyanto

On July 14, 2023, the WNC Health Policy Initiative met with guest presenter Phillip Gibson, State Coordinator for the North Carolina Dept. of Health and Human Services' Radiation Protection Section/Radon Program, to discuss the importance of radon education, awareness, prevention, testing and mitigation. And we learned a few things that surprised even our team of health professionals!

PSA link: <https://www.wnchealthpolicy.org/blog/radon-psa>

January is Radon Action Month



Governor Roy Cooper has proclaimed January as Radon Action Month to raise the public's awareness of radon, promote testing and mitigation for radon, and reduce the risk of lung cancer from radon. Testing is the only way to know if you or your family is at risk, and residents can order a free test kit, while supplies last, at radon.ncdhhs.gov. (via [NCDHHS press release](#))

A call to action

Consider working with your State Department of Health and Human Services, especially the Department of Public Health to:

- Include radon policies in your SHIP
- Mobilize public health professionals to support your work



Thank you!

Amy Joy Lanou, PhD

Director, NC Institute for Public Health

UNC Chapel Hill