Understanding the Challenges: Nature of Environmental, Health and Economic Equity Challenges Facing Underserved Communities

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Introduction

Message: Advance equity through NEPA by addressing basic needs and safety of underserved individuals/communities for full range of government decisions affecting environment and human environment.

Punch Line: NEPA practitioners have huge opportunity and responsibility to intensify consideration of underserved populations through NEPA framework in government decision-making for controversial and transactional federal actions.
Part One: Understanding Challenges of Underserved Communities (15 minutes)

Learning Objective: Increase understanding of basic needs and safety relevant to NEPA and Equity
- Human face of inequities
- EJ Concerns
- Basic Needs & Safety
- Examples

Part Two: Applying NEPA to Overcome Challenges (10 minutes)

Learning Objective: Increase application of NEPA framework to basic needs and safety for underserved communities
- Promising Practices
- Practice Tips
Part One

Understanding Challenges of Underserved Communities

Learning Objective: Increase understanding of basic needs and safety relevant to NEPA and Equity

- Human face of inequities
- EJ Concerns
- Basic Needs & Safety
- Examples
NEPA & Equity

- People Bearing Burdens
- Disproportionate Impacts
- Physical and Mental Health
- Basic Needs and Safety
- EJ/TBLJ
- Equity
Disproportionate Impact Data on Physical Health: Asthma

BIPOC experience high incidence of asthma and related acute/chronic physical/behavioral health outcomes

Non-Hispanic Blacks

- 40 percent more likely to have asthma than non-Hispanic whites
- nearly three times more likely to die from asthma related causes than non-Hispanic white people

Non-Hispanic black children

- death rate eight times that of non-Hispanic white children.
- 5 times more likely to be admitted to the hospital for asthma than non-Hispanic white children
Disproportionate Impact Data on Physical Health

Diabetes: Non-Hispanic Blacks compared to non-Hispanic whites

- 60 percent more likely to be diagnosed with diabetes
- twice as likely to die from diabetes
- 3.2 times more likely to be diagnosed with end stage renal disease
- 2.3 times more likely to be hospitalized for lower limb amputations
# Outcomes of Diabetes Care for Blacks*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Most Recent Disparity</th>
<th>Disparity Change</th>
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<tr>
<td>Admissions for uncontrolled diabetes without complications per 100,000 population, age 18 and over</td>
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<tr>
<td>Admissions with diabetes with short-term complications per 100,000 population, age 18 and over</td>
<td>Worse</td>
<td>Narrowing</td>
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<tr>
<td>Admissions with diabetes with short-term complications per 100,000 population, ages 6-17</td>
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<td>Admissions with diabetes with long-term complications per 100,000 population, age 18 and over</td>
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<tr>
<td>Adjusted incident rates of end stage renal disease (ESRD) due to diabetes per million population</td>
<td>Worse</td>
<td>Narrowing</td>
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</table>

* Source: US HHS Agency for Healthcare Research and Quality (AHRQ)
Disproportionate Impact Data on Physical Health

Maternal and Child Health

- Infant mortality rate for blacks is twice rate for white infants
- Black mothers are three times as likely to die from childbirth as white mothers
- Poor air quality associated with poor maternal health outcomes e.g., low birthweight, gestational diabetes mellitus, gestational hypertension and preeclampsia
- Women exposed to air pollution have higher rates of preterm birth and stillbirth
  - risk of stillbirth twice as high for Black mothers as for white mothers
- Farmworkers suffer high rate of pesticide-related illnesses each year, particularly among children and pregnant women
Infant mortality per 1,000 live births, all birth weights, by race, 2003-2012, and stratified by mother’s age, Blacks and Whites, 2012

Key: API = Asian or Pacific Islander; AI/AN = American Indian or Alaska Native.
Denominator: Live births.
Disproportionate Impact Data on Mental Health

Climate risk factors have negative impact on mental health

- extreme heat, air pollution, flooding, and hurricanes

Air pollution connecting to preterm birth/stillbirth key risk factor for postpartum depression

- 38% of women of color have postpartum depression compared to 13-19% for all postpartum women

Poverty level affects mental health status

- Black or African Americans living below poverty level are twice as likely to report serious psychological distress compared to those over twice poverty level
# Environmental Justice Concerns Relevant to NEPA

## Pollution Burden vs. Population Characteristics

### Exposures
- Ozone
- PM2.5
- Diesel Particulate Matter
- Drinking Water Contaminants
- Toxic Releases from Facilities
- Traffic

### Environmental Effects
- Solid Waste Sites and Facilities
- Cleanup Sites
- Groundwater Threats
- Impaired Water Bodies

### Sensitive Populations
- Asthma
- Cardiovascular Disease

### Socioeconomic Factors
- Educational Attainment
- Housing Burden
- Linguistic Isolation
Disproportionate Impact Factors Relevant to NEPA

- Proximity and Exposure
- Cumulative Impacts
- Physical Infrastructure
- Susceptible Populations
- Unique Exposure Pathways
- Participating in Decision Making
Social determinants of health
• conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks
• grouped into 5 domains
Maslow’s Hierarchy of Needs

- Physiological needs: food, water, warmth, rest
- Safety needs: security, safety
- Belongingness and love needs: intimate relationships, friends
- Esteem needs: prestige and feeling of accomplishment
- Self-actualization: achieving one’s full potential, including creative activities

Freeze Frame Deep Dive:
Basic Needs: Health Care

Relationship to Racial Equity and Justice: Community Health Centers serve disadvantaged and underserved populations

- More than 91% of health center patients are individuals or families living at or below 200% of the Federal Poverty Guidelines
- More than 60% are racial or ethnic minorities
- 1 in 5 people are living in rural communities

American Rescue Plan Act (ARPA) Funding: Federally Qualified Health Centers (FQHCs) received funding to expand health centers’ operational capacity during pandemic and beyond. U.S. Health Resources and Services Administration (HRSA) allocated $7.6B

ARPA Goals: community health centers should address:
- Equitable access to COVID-19 vaccination, testing, and treatment
- Other current and anticipated COVID-19 and primary health care needs in the service area
- Population and social determinants of health that may impact access to care, contribute to poor health outcomes, and exacerbate health disparities
Basic Needs: Climate Change and Energy Efficiency & Weatherization

The Benefits of a Weatherized Home

NEPA Overview for the Weatherization Assistance Program
Basic Needs: Food Security
Mothers’ Needs  Bridgeport, CT

60.7%  A majority of mothers screened positive for housing insecurity

65.3%  And more screened positive for food insecurity

Visualizing Equity Through NEPA

Mobility in America


Mothers’ Needs  Bridgeport, CT

Mothers are significantly more likely to have increased depression symptoms if they experience food insecurity

Average CES-D Score

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<td>17.2</td>
<td>12.3</td>
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CES-D ≥ 16: "at risk for depression"

= 1% of children born in the bottom income quintile

23% move to second quintile

42% stay in bottom quintile
New Haven MOMS Partnership and Breast-Feeding Task Force
Part Two

Applying NEPA to Overcome Challenges

Learning Objective: Increase application of NEPA framework to basic needs and safety for underserved communities
- Biden Administration Commitment to Equity
- Promising Practices & Practice Tips
Whole of Government Solutions: ARPA Funding for Basic Needs and Safety

Where is NEPA???
Beneficiaries of NEPA & Equity: People United by a Particular Characteristic

Equity: consistent and systematic fair, just, and impartial treatment of all individuals who belong to underserved communities denied such treatment

- Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color;
- members of religious minorities;
- lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons;
- persons with disabilities; persons who live in rural areas;
- persons otherwise adversely affected by persistent poverty or inequality.

Underserved Communities: populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, as exemplified by the list in the preceding definition of “equity.”

EO 13985: Definitions
Benefits of NEPA & Equity:
People United by a Particular Condition

(g) **Effects** or *impacts* means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives, including those effects that occur at the same time and place as the proposed action or alternatives and may include effects that are later in time or farther removed in distance from the proposed action or alternatives.

• (1) **Effects** include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic (such as the effects on employment), social, or health effects. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

40 CFR § 1508.1 - Definitions
Federal Actions Subject to NEPA:

- Federal construction projects
- Adoption of Federal programs
- Plans to manage Federal lands and resources
- Federal funding of state, local, and private projects
- Federal approval of grants, licenses, leases and permits

Where is Equity???
Promising Practices for EJ Methodologies in NEPA Reviews

Meaningful Engagement

Scoping

Alternatives

Affected Environment

Identify
Minority & Low-Income Populations

Impacts

Disproportionately High & Adverse Impacts

Mitigation & Monitoring
Promising Practices Tips: Defining Affected Environment

Focus: Consider how community’s conditions, characteristics, location can influence boundaries

Conditions: ecological, aesthetic, historic, cultural, economic, social, or health
• human health vulnerabilities (e.g., heightened disease susceptibility, health disparities)
• socioeconomic vulnerabilities (e.g., reliance on resource that may be affected by proposed action, disruptions to community mobility and access as a result of infrastructure development)
• cultural vulnerabilities (e.g., traditional cultural properties and ceremonies, fish consumption)

Location:
• exposure pathways (routes by which the minority or low-income population may come into contact with chemical, biological, physical, or radiological effects), including multiple exposures
• ecological, aesthetic, historic, cultural, economic, social, or health consequences to the community
• distribution of adverse and beneficial impacts from proposed action

Modifications: extent of the affected environment may be
• larger (or smaller)
• differently shaped than boundaries without existence of conditions
• may also not be contiguous.
## Promising Practice Tips: Impacts

### Potential vulnerabilities from low-probability, high-impact events

- lack of infrastructure and resources to address unanticipated impacts
- inability to evacuate or relocate
- lack of access to health care
- and reliance on affected natural and cultural resources

### Factors related impact's intensity from a proposed project

- health and safety of the community
- community’s unique geographic characteristics, including proximity to cultural resources
- degree to which the action may establish a precedent for future actions with significant effects
- loss of significant cultural or historical resources

### Unique susceptibility to impacts from a proposed project

- special vulnerabilities, e.g. pre-existing health conditions that exceed norms among the general population
- unique routes of exposure, e.g. use of surface or well water in rural communities
- cultural practices, e.g. subsistence fishing, hunting or gathering, access to sacred sites
Promising Practice Tips: Disproportionately High and Adverse Impacts

DHAI factors that amplify identified impacts

• unique exposure pathways
• prior exposures
• social determinants of health

Environmental stressor sources that may cause adverse health effects

• number of environmentally-regulated facilities within a community
• proximity of regulated facilities
• quality of the air, water, and other environmental media;
• Existing health conditions such as percent of infant mortality, average birth weight, adult mortality, life expectancy at birth, and life span (e.g., age groups, healthy versus vulnerable populations)
Promising Practice Tips: Mitigation

Five Mitigation Methods for Each Potential Impact

- Avoiding impact by not taking a certain action or parts of action.
- Minimizing impact by limiting degree or magnitude of action and its implementation.
- Rectifying an impact by repairing, rehabilitating, or restoring affected environment.
- Reducing or eliminating an impact’s frequency over time (e.g., preservation and maintenance operations during the life of the action.)
- Compensating for an impact by replacing or providing substitute resources or environments
Promising Practices Tips: Mitigation

• Unique characteristics and conditions of minority populations and low-income populations in affected environment may require adaptive and innovative mitigation measures to sufficiently address specific circumstances and impacts
  • evaluate mitigation measures even if project will have benefits to minority populations and low-income populations
  • include as conditions in associated permits and licenses or in federal assistance grants and agreements
NEPA & EJ Theory of Change

**Environmental, Health & Economic Justice**

*Triple Bottom Line Justice*

**NEPA Effects**

- Reduce threats to natural and physical environment
- Reduce barriers to harmony with human environment

**Increase engagement in decision-making**

- Increase consideration of ecological, aesthetic, historic, cultural, economic social, or health effects
- Increase accountability for detrimental and beneficial effects

- Health Care
- Food Security
- Safe Housing
- Energy
- Active Transportation Options

See Section 1508.1 Definitions (g) Effects
Thank you!

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