Contents:
- Summary “pathway” diagram
- Housing “pathway” diagram
- Housing evidence inventory
- Housing policy goals and potential policy recommendations

For background on how these materials were developed, see the Agenda and overview of pre-read materials for October 17 Advisory Group meeting document posted on the project webpage.
Summary of relationships between housing, transportation, education, employment and infant mortality

Cross-cutting factors
- Poverty
- Racism* and discrimination
- Toxic and persistent stress, trauma and violence

Challenges and inequities in the social, economic and physical environment**
- Housing
- Transportation
- Education
- Employment

Negative effects on health and equity
- Inadequate pre-conception, prenatal and post-natal care
- Poor maternal health
- Inadequate access to healthy foods and opportunities for physical activity
- Limited education and employment opportunities
- Poverty
- Toxic and persistent stress
- Other topic-specific factors***

Leading causes of infant mortality
- Poor birth outcomes
- Sudden unexplained infant death
- Accidents, injuries and violence

* Structural, institutional, interpersonal and internalized racism
** Topics specified for study by SB 332
*** See figures 2-5 for details
Relationship between housing and infant mortality

### Housing challenges and inequities

**Affordability**
- Lack of affordable housing stock
- Lack of income and livable wage jobs to afford available housing
- Limited availability of rental assistance
- Lack of savings for emergencies

**Neighborhood conditions**
- Low opportunity (education, jobs, etc.)
- High crime and violence
- Limited access to resources (healthy food, medical care, etc.)

**Stability**
- Forced moves and evictions
- Lack of renter protections and predatory rental practices
- Abusive/violent living situations

**Quality**
- Poor house maintainance or construction
- Lack of safe sleeping areas
- Involuntary doubling and tripling up

### Negative effects on health and equity

**Food insecurity and poor nutrition**

**Difficulty paying for medical care**

**Difficulty getting to jobs, education, child care and medical providers**

**Toxic and persistent stress**

**Unsafe sleep**

**Intimate partner violence**

**Exposure to toxins and pests (lead, environmental tobacco smoke, etc.)**

### Leading causes of infant mortality

**Birth outcomes:**
- Preterm birth
- Low birth weight
- Birth defects
- Maternal complications of pregnancy

**Unhealthy behaviors such as alcohol, tobacco and other drugs**

**Poverty**

**Disrupted, uncoordinated or inadequate pre-conception, prenatal and post-natal care**

**Accidents, injuries and violence**

**Sudden unexplained infant death**
**HOUSING evidence inventory**

Effective strategies to address housing challenges and inequities relevant to infant mortality

10-12-2017

**Key**

*Green* = 2017-2019 State Health Improvement Plan strategy  
*Red* = Leading causes of infant mortality  
*Italics* = Outcomes also relevant to transportation, education, employment, poverty, racism, stress or violence

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**Affordability**

Relevant policy goals:
- Increase access to housing rental assistance programs for renters with Extremely Low Incomes
- Reduce structural barriers to accessing affordable housing for the highest-risk renters
- Increase the supply of affordable housing for renters with Extremely Low Incomes
- Improve coordination of services for low-income families by convening cross-sector partnerships

<table>
<thead>
<tr>
<th>Policy or program</th>
<th>Evidence rating and direct outcomes documented in evidence review</th>
<th>Indirect/other potential outcomes in evidence review</th>
<th>Effectiveness to reduce inequities</th>
</tr>
</thead>
</table>
| 1. **Tenant-based rental assistance SHIP** | CG: Recommended:  
- Reduced exposure to crimes against person and property  
- Decreases in neighborhood social disorder | WWFH: Other potential beneficial outcomes:  
- Reduced poverty  
- Reduced homelessness  
- Increased food security  
- Increased housing stability | WWFH: likely to decrease disparities |
| WWFH ([Housing Choice Voucher Program (Section8)]): Some evidence:  
- Increased neighborhood choice  
- Increased neighborhood socio-economic diversity  
- Reduced exposure to crime | | |
| 2. **Low-income housing tax** | WWFH: Some evidence:  
- Increased access to affordable | WWFH: Other potential beneficial outcomes: | WWFH: likely to decrease |
| | | | |

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### Neighborhood conditions

Relevant policy goals:
- Increase the supply of affordable rental housing for Extremely Low Income and Very Low Income households in high opportunity and low poverty areas
- Improve coordination of services for low-income families by convening cross-sector partnerships

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</tr>
</thead>
<tbody>
<tr>
<td><strong>credits SHIP</strong></td>
<td>housing • Increased access to quality housing</td>
<td>• Reduced crime • Increased neighborhood socio-economic diversity</td>
<td>disparities</td>
</tr>
<tr>
<td><strong>3. Inclusionary zoning</strong></td>
<td>WWFH: Some Evidence: • Increased access to affordable housing • Increased access to quality housing</td>
<td>WWFH: Other potential beneficial outcomes: • Increased neighborhood socio-economic diversity</td>
<td>WWFH: likely to decrease disparities</td>
</tr>
<tr>
<td><strong>4. Living wage laws</strong></td>
<td>WWFH: Some evidence: • Increased earnings • Reduced poverty</td>
<td>WWFH: Other potential beneficial outcomes:</td>
<td>WWFH: likely to decrease disparities</td>
</tr>
<tr>
<td><strong>5. Earned Income Tax Credit SHIP</strong></td>
<td>WWFH: Scientifically supported • Increased income • Increased employment</td>
<td>WWFH: Other potential beneficial outcomes: • Increased academic achievement • Improved maternal health • Improved birth outcomes</td>
<td>WWFH: likely to decrease disparities</td>
</tr>
<tr>
<td><strong>6. Matched dollar incentives for saving tax refunds</strong></td>
<td>WWFH: Some evidence: • Increased asset accumulation</td>
<td>WWFH: Other potential beneficial outcomes: • Increased financial stability</td>
<td>WWFH: likely to decrease disparities</td>
</tr>
<tr>
<td><strong>7. Green space and parks SHIP</strong></td>
<td>WWFH: Some evidence: • Increased physical activity</td>
<td>WWFH: Other potential beneficial outcomes: • Reduced obesity rates • Improved mental health</td>
<td>WWFH: likely to decrease disparities</td>
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The Community Guide ([Creating or](#))
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>WWFH: Scientifically supported:</th>
<th>WWFH: Other potential beneficial outcomes:</th>
<th>WWFH: likely to decrease disparities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving Places for Physical Activity</td>
<td>• Increase physical activity</td>
<td>• Reduced crime</td>
<td></td>
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<tr>
<td>8. Zoning regulations for land use policy</td>
<td>• Improved fitness</td>
<td>• Reduced stress</td>
<td></td>
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<tr>
<td>9. Land banking</td>
<td>• Increased physical activity</td>
<td>• Improved birth outcomes</td>
<td></td>
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<tr>
<td>10. Mixed-use development</td>
<td>• Increased active transportation</td>
<td>• Reduced vehicle miles traveled</td>
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<tr>
<td>11. Community Development Block Grants (CDBGs)</td>
<td></td>
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<tr>
<td>12. Focused deterrence strategies</td>
<td>• Increased health outcomes</td>
<td></td>
<td></td>
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<tr>
<td>13. Neighborhood watch</td>
<td>• Reduced crime</td>
<td></td>
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<tr>
<td>14. Cognitive-</td>
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</tbody>
</table>
| **behavioral therapy for offenders** | Reduced crime  
Reduced recidivism | WWFH: Scientifically supported:  
• Increased satisfaction with law enforcement | WWFH: Other potential beneficial outcomes:  
• Improved neighborhood safety  
• Reduced crime  
• Increased problem solving skills |
| **Community policing** | WWFH: Some evidence:  
• Increased access to healthy foods in food deserts  
• Increased access to fruits and vegetables | WWFH: Other potential beneficial outcomes:  
• Increased healthy food purchases | WWFH: likely to decrease disparities |
| **Healthy food in convenience stores** | WWFH: Some evidence:  
• Increased access to healthy foods in food deserts  
• Increased access to fruits and vegetables | WWFH: Other potential beneficial outcomes:  
• Increased healthy foods in food deserts  
• Increased fruit and vegetable consumption  
• Strengthened local food systems  
• Improved local economy | WWFH: likely to decrease disparities |
| **Farmers’ markets/stands** | WWFH: Some evidence:  
• Increased access to fruits and vegetables | WWFH: Other potential beneficial outcomes:  
• Increased healthy foods in food deserts  
• Increased fruit and vegetable consumption  
• Strengthened local food systems  
• Improved local economy | WWFH: likely to decrease disparities |
| **Healthy food initiatives in food banks** | WWFH: Some evidence:  
• Increased healthy food consumption  
• Increased food security | WWFH: Other potential beneficial outcomes:  
• Increased nutrition  
• Improved weight status | WWFH: likely to decrease disparities |
| **Community gardens** | WWFH: Some evidence:  
• Increased access to fruits and vegetables  
• Increased fruit and vegetable consumption  
• Increased physical activity | WWFH: Other potential beneficial outcomes:  
• Increased food security  
• Increased healthy foods in food deserts  
• Reduced obesity rates  
• Improved mental health  
• Improved sense of community  
• Improved neighborhood safety |
### Stability

Relevant policy goals:
- Increase access to housing rental assistance programs for renters with Extremely Low Incomes
- Reduce the number of evictions and forced moves experienced by low-income families most at risk of infant mortality, including African Americans and pregnant women
- Improve coordination of services for low-income families by convening cross-sector partnerships

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<tr>
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</thead>
<tbody>
<tr>
<td>20. Community land trusts</td>
<td>WWFH: Some evidence:</td>
<td>WWFH: Other potential beneficial outcomes:</td>
<td>WWFH: likely to decrease disparities</td>
</tr>
<tr>
<td></td>
<td>• Increased housing stability</td>
<td>• Increased access to affordable housing</td>
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<td></td>
<td></td>
<td>• Improved neighborhood quality</td>
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<tr>
<td>21. Service-enriched housing SHIP</td>
<td>WWFH: Some evidence:</td>
<td>WWFH: Other potential beneficial outcomes:</td>
<td>WWFH: likely to decrease disparities</td>
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<tr>
<td></td>
<td>• Reduced homelessness</td>
<td>• Improved health outcomes</td>
<td></td>
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<tr>
<td></td>
<td>• Increased housing stability</td>
<td>• Improved mental health</td>
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<td></td>
<td>• Reduced hospital utilization</td>
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<tr>
<td>22. Rapid re-housing programs</td>
<td>WWFH: Some evidence:</td>
<td>WWFH: Other potential beneficial outcomes:</td>
<td>WWFH: likely to decrease disparities</td>
</tr>
<tr>
<td></td>
<td>• Reduced homelessness</td>
<td>• Improved housing stability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Improved access to social services</td>
<td>• Increased food security</td>
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<tr>
<td></td>
<td></td>
<td>• Improved health outcomes</td>
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<tr>
<td></td>
<td></td>
<td>• Improved mental health</td>
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<tr>
<td></td>
<td></td>
<td>• Increased income</td>
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</table>
### Quality

Relevant policy goals:
- Improve the quality of affordable housing stock
- Improve coordination of services for low-income families by convening cross-sector partnerships

<table>
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</tr>
</thead>
</table>
| **23. Home rehabilitation loan and grant programs** <br>SHIP | WWFH: Scientifically supported:  
- Improved health outcomes  
- Improved mental health  
**Hi-5:** Recommended:  
- Improvement in general health status  
- Improvement in respiratory health  
- Improvement in mental health  
- Reduction in visits to general practitioners | WWFH: Other potential beneficial outcomes:  
- Increased energy efficiency  
- Reduced hospital utilization  
- **Reduced absenteeism**  
- Improved neighborhood quality | WWFH: likely to decrease disparities |
| **24. Integrated pest management for indoor use** | WWFH: Scientifically supported:  
- Reduced pesticide exposure  
- Improved health outcomes  
- Improved housing conditions | | WWFH: likely to decrease disparities |
| **25. Lead paint abatement programs** | WWFH: Scientifically supported:  
- Reduced lead exposure | WWFH: Other potential beneficial outcomes:  
- Reduced blood lead levels  
- Improved health outcomes  
- Improved child behavior  
- Improved youth behavior  
- Reduced healthcare costs | |
| **26. Healthy home environment assessments** <br>SHIP | WWFH: Scientifically supported:  
- Reduced exposure to allergens  
- Reduced hospital utilization | WWFH: Other potential beneficial outcomes:  
- Improved asthma management  
- Improved quality of life  
- Improved indoor air quality  
- Improved health outcomes | WWFH: likely to decrease disparities |
Sources and acronyms
HPIO searched the following systematic reviews and evidence registries to develop this inventory. Search terms aligned with the pathway diagrams (dark blue boxes) and findings of the literature review.

<table>
<thead>
<tr>
<th>Systematic review or evidence registry*</th>
<th>Recommendation level(s)/Evidence rating included in this inventory</th>
</tr>
</thead>
</table>
| **What Works for Health (WWFH):** Evidence registry from County Health Rankings and Roadmaps, a project of the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation | • Scientifically supported  
• Some evidence |
| **Hi-5 (Health Impact in 5 Years):** Recommendations from CDC | Recommended |
| **The Guide to Community Preventive Services (Community Guide, CG):** Systematic reviews from the U.S. Centers for Disease Control and Prevention (CDC) | Recommended |

* Also consulted What Works Clearinghouse and Top Tier Evidence, although no relevant reviews were found for housing.

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1 Aligns with dark blue box on transportation pathway diagram
2 Aligns with policy landscape and policy recommendations; relevant to infant mortality priority populations
HOUSING
Policy goals and potential policy recommendations
10/12/17

Policy goals
1. Increase access to housing rental assistance programs for renters with Extremely Low Incomes
2. Reduce structural barriers to accessing affordable housing for the highest-risk renters
3. Increase the supply of affordable housing for renters with Extremely Low Incomes
4. Reduce the number of evictions and forced moves experienced by low-income families most at risk of infant mortality, including African Americans and pregnant women
5. Improve the quality of affordable housing stock
6. Increase the supply of affordable rental housing for Extremely Low Income and Very Low Income households in high opportunity and low poverty areas
7. Improve coordination of services for low-income families by convening cross-sector partnerships

Policy recommendations

Policy Goal #1: Increase access to housing rental assistance programs for renters with Extremely Low Incomes

1. State policymakers can provide funding for the Ohio Housing Finance Agency (OHFA) to establish a new state-funded rental assistance program targeted to reducing infant mortality among populations most at-risk for infant mortality, including people with low incomes and low levels of education attainment, African Americans and residents of infant mortality hot spot zip code areas or neighborhoods.
2. State legislators can increase dedicated revenue for the Ohio Housing Trust Fund by increasing county recordation fees and/or establishing new sources of dedicated revenue. The Ohio Housing Trust Fund Advisory Committee can allocate additional revenue to rental assistance targeted for Extremely Low Income renters.
3. State policymakers can provide additional funding to the Ohio Development Services Agency for rapid rehousing, an evidence-based intervention to reduce homelessness for families.
4. The Ohio Department of Job and Family Services can amend the Ohio Temporary Assistance for Needy Families (TANF) State Plan to allow TANF funds to be directed to rapid rehousing and/or rental assistance programs for TANF-eligible families.
5. Continuums of Care can prioritize pregnant women and families who are homeless for emergency shelter, rapid rehousing and eviction prevention programs.
6. State policymakers can instruct key state agencies to establish incentives that will help public housing authorities implement housing preferences for pregnant women who are homeless or experiencing housing insecurity.
7. OHFA can monitor the progress and completion of the evaluation of the Housing Assistance to Reduce Infant Mortality pilot project. State policymakers can use
recommendations from the evaluation to plan future state-funded rental assistance programs targeted to reduce infant mortality.

**Policy Goal #2: Reduce structural barriers to accessing affordable housing for the highest-risk renters**

8. State legislators can pass legislation to reduce or eliminate barriers to obtaining affordable housing. Barriers that could be reduced or eliminated include:
   a. Landlord discrimination based on the source of income potential tenants will use to pay rent (such as Housing Choice Vouchers, Supplemental Security Income and Temporary Assistance for Needy Families)
   b. “Banning the box” or delaying the use of criminal background checks in the tenant screening process until after a conditional housing offer is made
   c. Restrictions on not renting to people with criminal records
9. Local policymakers can increase access to private rental market housing for tenants with Extremely Low Incomes by establishing incentives, such as a ‘mitigation fund’ that could be used to mitigate some of the perceived risks associated with renting to tenants with Extremely or Very Low Incomes and rental assistance recipients, including ability to pay rent, lease compliance and general maintenance.

**Policy Goal #3: Increase the supply of affordable housing for renters with Extremely Low Incomes**

10. State and local policymakers can increase the value and amount of financial incentives, including tax exemptions and abatements and capital funding, dedicated to rental housing development projects that set-aside units for households with Extremely Low Incomes.
11. State legislators can increase funding for the development of affordable housing by requiring that new non-residential projects (i.e. retail, hotels, office buildings and manufacturing facilities) that receive State of Ohio economic development incentives are assessed a one-time fee for affordable housing. This could be a lump sum fee, a per-square footage fee, or a fee based on the impact of the new development of affordable housing needs (i.e. lower wage jobs created or higher housing costs) in the jurisdiction where it will be located. The affordable housing funds could be geographically targeted to the location of the economic development project.
12. State policymakers can fund a study to determine the feasibility and potential impact of issuing social impact bonds to fund the development of affordable housing for renters with Extremely and Very Low Incomes.
13. Local policymakers can increase funding available for new housing that is affordable for Extremely and Very Low Income households by providing developers with a benefit such as additional capital funding if a certain share of units are affordable or requiring developers to pay an in-lieu fee that is dedicated to affordable housing development.
14. State agencies can promote strategies that can be implemented at the local level to reduce financial and regulatory barriers to increasing the supply of affordable housing. Examples of strategies that could be promoted include:
a. Adopting clearer and shorter permitting requirements for affordable housing development
b. Revising zoning ordinances to reduce the need for variances and/or expedite the process for obtaining a variance for affordable housing development
c. Allowing developers to purchase or use housing plans that are examples of good design that have been pre-approved by the city for conformance with building codes and/or other standards
d. Allowing or encouraging the use of innovative housing design and construction techniques to reduce the cost of developing and operating affordable housing by investing in micro-housing, green affordable housing development and/or non-conventional building technology, such as modular, prefabricated or shipping container units

Policy Goal #4: Reduce the number of evictions and forced moves experienced by low-income families most at risk of infant mortality, including African Americans and pregnant women

15. State and local policymakers can increase rapid access to legal representation, landlord-tenant mediation and other supportive services, including emergency financial assistance, to prevent formal evictions experienced by low-income families most at risk of infant mortality, including African Americans and pregnant women.
16. The Supreme Court of Ohio Domestic Violence Program can provide educational materials, training curriculum and other technical assistance to organizations that regularly interact with landlords, such as public housing authorities and landlord membership organizations, for the purpose of educating landlords on protections for survivors of domestic violence related to housing and eviction.
17. State policymakers and the Ohio Supreme Court can commission research to determine how discrimination based on race, gender, and pregnancy status impact evictions and housing instability and make recommendations for courts and local policymakers to implement protections against discriminatory housing practices.
18. State policymakers and the Ohio Supreme Court can commission research to determine how predatory rental practices impact housing stability for low-income families most at risk of infant mortality, including African Americans and pregnant women, and provide recommendations for local executives and courts to address these issues.

Policy Goal #5: Improve the quality of affordable housing stock

19. State policymakers can increase funding to local health departments and other local entities that screen for and remediate housing quality issues with potential impacts on health. Additional incentives could be developed for entities that give preference to women who are pregnant and families with infants.
20. State legislators can reduce the waiting period for tenants to begin paying rent into escrow in cases when landlords do not quickly fix problems in rental units that are harmful to health for pregnant women and/or young children. Current law requires
that tenants wait 30 days after providing written notice of problems to landlords before depositing rent in escrow except emergency cases and makes no exceptions for people with health conditions that may be particularly vulnerable to the health effects of poor quality housing.

21. Local policymakers can purchase or otherwise acquire vacant, abandoned and other blighted properties for redevelopment into affordable housing and/or demolition.

22. State policymakers can commission research to examine the relationships between building code enforcement, health and housing instability. The purpose of the study could be to develop recommendations for local governments to balance the need to enforce building codes that negatively impact health without increasing housing instability among pregnant women and families with young children.

Policy Goal #6: Increase the supply of affordable rental housing for Extremely Low Income and Very Low Income households in high opportunity and low poverty areas

23. State policymakers can provide incentives, such as increased funding for services or preference for state grant programs, to municipalities that encourage and support the development of affordable housing in high opportunity areas within their communities.

24. Local policymakers including city planners can utilize the USR Opportunity Index when making decisions about the placement of new affordable housing developments.

25. Local policymakers can require that new housing developments implement inclusionary policies such as reserving a certain percentage of new units to be affordable as a condition of obtaining a zoning variance. Local policymakers can also require that housing developers work with local public housing authorities to ensure that new housing development will be eligible to accept rental assistance.

Policy Goal #7: Improve coordination of services for low-income families by convening cross-sector partnerships

26. Convene the Ohio Department of Medicaid, Ohio Housing Finance Agency, Ohio Development Services Agency, Ohio Mental Health and Addiction Services, Ohio Department of Health and Ohio’s Medicaid Managed Care Plans with Ohio Equity Institute partners and Continuums of Care to discuss ways that Medicaid Managed Care Plans can support housing stability among Medicaid enrollees most at-risk for infant mortality, including people with low incomes and low levels of education attainment, African Americans and residents of infant mortality hot spot zip code areas or neighborhoods.

27. The Ohio Development Services Agency and the Ohio Department of Health can develop/commission and distribute a report to relevant stakeholders that:
   a. Describes the impacts of homelessness on the health of pregnant women and families with infants
   b. Provides recommendations for state and local governments, Continuums of Care, homeless service providers, public health departments, managed care
organizations and healthcare providers to improve coordination and quality of services for pregnant women experiencing homelessness.

c. Highlights best practices for funding and implementing service, shelter and housing improvements outlined in the report.

28. State policymakers can require service systems, such as Medicaid, Temporary Assistance for Needy Families (TANF) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), to collect information about the housing status of households during the application and re-certification process. This data could be collected consistently across systems and used to:

   a. Provide a standardized means for identifying and connecting people experiencing a housing crisis to appropriate and timely interventions.
   b. Inform the allocation of resources to affordable housing programs.
   c. Direct resources to areas with the greatest need.
   d. Inform the development of cross-sector partnerships with the potential to improve housing outcomes for Ohioans.

29. State policymakers can maximize the impact of supportive services that are already being paid for by the state by:

   a. Targeting public grants to affordable housing providers that provide co-located services or effectively partner with community service providers.
   b. Providing rent assistance funds to supportive service providers that engage individuals and families experiencing housing insecurity.
   c. Providing housing counseling and asset-building programs for recipients of housing assistance to enable them to move up the housing continuum.