# An Environmental Assessment Instrument for Rural Communities

## Development of the Rural Active Living Assessment (RALA) Tools


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# Findings leading to the development of the RALA tools

- Our previous studies found urban-based environmental audit tools inappropriate for most rural settings
- Necessary to adapt, simplify, and add items and domains to address unique qualities of rural communities
- New protocol for selecting and assessing ‘segments’ in rural communities
- Need to include elements of program and policy environments

# Objectives: RALA tools development

- To develop, test and refine a rural-specific instrument to help assess how the physical, program, and policy environments of a rural community support active living
- To help provide a resource for future active living studies/interventions in rural areas
- Intended for broad audience:
  - Community members
  - Policymakers
  - Program staff
  - Planners
  - Researchers

# Methods: RALA tools development

- Assessed existing active living audit tools to determine their usefulness and significance in rural communities:
  - Irvine-Minnesota Inventory (Day et al., 2006 )
  - Physical Activity Resource Assessment (Lee et al., 2005)
  - Neighborhood Audit Tool (Evenson et al., *in review* )
  - Inventory of Resources Related to Health for Cities and Towns in Vermont (University of Vermont Center for Rural Studies, 2005)
  - Incorporated elements from formative conceptual model development to create a more relevant rural tool, including:

    - Density, diversity, design
    - Transportation options
    - School- and community-based programs and policies
    - Town-wide amenities

# Methods: RALA tools development

- Split into 3 separate instruments:
  - Town-wide Assessment
  - Program and Policy Assessment
  - Segment Assessment
- Tools designed to be used together to capture activity-friendliness of rural towns but can be completed at different times
- Segment Assessment may only be relevant for rural towns with walkable town centers or with highly-resourced areas
- In some towns, completing the Segment Assessment may not add any additional value

# Methods: RALA tools development

- **<u>Town-wide Assessment</u>** - *Demographic and geographic characteristics, school locations, and presence/location/condition of physical activity amenities:*

  - bike paths
  - public pool
  - skate park
  - ice-skating rink
  - YMCA/recreation center
  - playgrounds

- **<u>Program and Policy Assessment</u>** – *Community- and school-based programs and policies:*

  - sliding fee scale for town rec. programs
  - regular snow clearing from sidewalks
  - public transportation
  - walk to school programs
  - school late busses
  - public access to school facilities

- **<u>Segment Assessment</u>** – *Individual segment audits:*

  - land use
  - topography
  - walkability
  - connectivity
  - residential density

  Presence/condition of features:
  - public/civic
  - commercial
  - school
  - industrial

  Subjective assessments:
  - walkability
  - aesthetic appeal

# Methods: RALA tools development

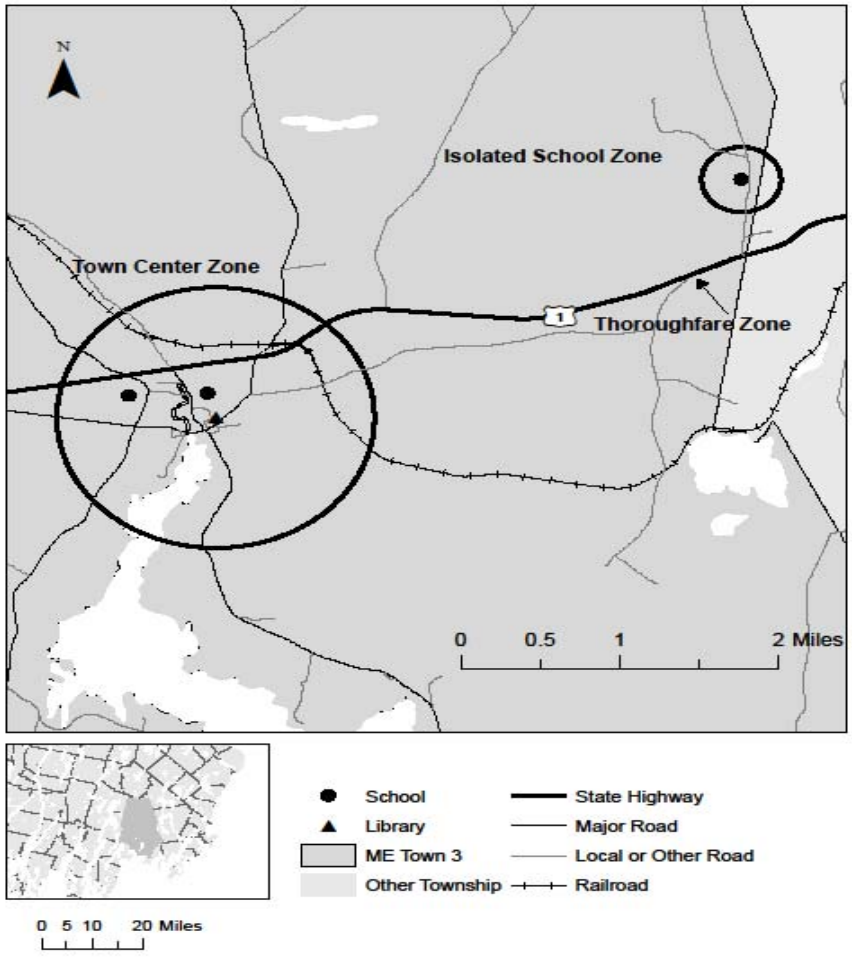
## Codebook:

- Help conceptualize organization of town, identify where community resources are located, and determine whether to select segments
- Item-by-item description of each tool
- Describes segment selection process

## Segment selection:

- Begin with town “central point” (e.g. library, town hall, town green)
- Four segment zones: Town Center Zone, Neighborhood Cluster Zone, Isolated School Zone, and Thoroughfare Zone

# Zones:


N
Isolated School Zone
Town Center Zone
1
Thoroughfare Zone
0 0.5 1 2 Miles
School
Library
ME Town 3
Other Township
State Highway
Major Road
Local or Other Road
Railroad
0 5 10 20 Miles

# Methods: RALA tools testing

**Pilot testing** (4 rural communities - ME)

- Assessed usability, length and appropriateness of tools and streamlined segment selection process

**Field testing** (7 rural communities – ME, KY, MS, AL, CA)

- Town-wide and Program & Policy Assessment tools completed with help of community members to gather feedback, comments, and questions regarding useability and relevance of tool
- Segment Assessment tool tested for inter-rater reliability

# Results: Segment Assessment tool – interrater reliability

- Data reported for 118 segments in 7 communities
- Overall percent agreement for Segment Assessment items was 91.9%
- κ statistic, which accounts for chance agreement was substantial (0.78, p<.001)

# Results: Selected items from the RALA Program and Policy tool

| ✓ = Yes, **x** = No, **O** = DK, **-** = n/a | Town 1 (ME) | Town 2 (ME) | Town 3 (ME) | Town 4 (MS) | Town 5 (AL) | Town 6* (KY) | Town 7 (CA) |
|---|---|---|---|---|---|---|---|
| **School-based: Does the town…** | | | | | | | |
| **Have any "Walk to School" programs?** | x | O | ✓ | x | x | x | ✓ |
| **Participate in "Safe Routes to School?"** | ✓ | ✓ | O | x | O | x | x |
| **Do the public schools…** | | | | | | | |
| **Allow public access to their rec. facilities?** | ✓ | ✓ | ✓ | x | x | x | x |
| **Have a late bus option for students?** | O | ✓ | ✓ | x | ✓ | x | ✓ |
| **Community-based: Does the town…** | | | | | | | |
| **Offer local public transportation options?** | x | ✓ | x | x | ✓ | x | ✓ |
| **Regularly clear snow from sidewalks?** | ✓ | ✓ | x | - | - | - | - |
| **Have a public rec. department? *If yes…*** | x | ✓ | ✓ | ✓ | ✓ | x | ✓ |
| ***Do they offer youth programming?*** | - | ✓ | ✓ | ✓ | ✓ | - | ✓ |
| ***PA resources available for resident use outside of programming?*** | - | ✓ | x | ✓ | x | - | ✓ |
| ***Scholarships/sliding fees for lower-income residents?*** | - | ✓ | ✓ | x | x | - | ✓ |

** County seat served as proxy for "town center"*

# Results: Selected items for the RALA Town-Wide tool

| ✓ = Yes, **x** = No, **-** = n/a<br>**F/P** = Fair/Poor, **G/E** = Good/Excellent | Town 1 (ME) | Town 2 (ME) | Town 3 (ME) | Town 4 (MS) | Town 5 (AL) | Town 6* (KY) | Town 7 (CA) |
|---|---|---|---|---|---|---|---|
| **Population** | 4,211 | 6,476 | 4,916 | 3,680 | 3,511 | 12,401 | 23,624 |
| **Total Area (square miles)** | 73 | 37 | 75 | 7 | 11 | 404 | 10 |
| **Population Density (per square miles)** | 62 | 175 | 66 | 525 | 319 | 31 | 2,362 |
| **Topography** | Hilly | Flat | Hilly | Hilly | Hilly | Mountain | Flat |
| **General Street Pattern** | None | Radial | Radial | Grid | None | None | Grid |
| **Miles from the town center: Location of…** | | | | | | | |
| **Public High School** | ≤ 1 | ≤ 1 | 1 to 5 | ≤ 1 | ≤ 1 | 1 to 5 | ≤ 1 |
| **Amenity: Public Use Swimming Pool** | x | x | x | x | ≤ 1 | 1 to 5 | 1 to 5 |
| ***Condition of amenity?*** | - | - | - | - | F/P | G/E | F/P |
| ***Clearly marked signs for amenity?*** | - | - | - | - | x | x | ✓ |
| ***Designated parking for amenity?*** | - | - | - | - | x | ✓ | ✓ |
| ***Sidewalks leading to amenity?*** | - | - | - | - | x | x | ✓ |
| **Amenity: Biking Paths** | ≤ 1 | x | x | x | x | x | ≤ 1 |
| ***Condition of amenity?*** | G/E | - | - | - | - | - | G/E |
| ***Clearly marked signs for amenity?*** | ✓ | - | - | - | - | - | ✓ |
| ***Designated parking for amenity?*** | ✓ | - | - | - | - | - | ✓ |
| ***Sidewalks leading to amenity?*** | | - | - | - | - | - | ✓ |

# Limitations

- Do not include any scoring matrix with which to rate the activity-friendliness of rural towns.
- Have not been correlated with actual physical activity behavior data
- Designed to be meaningful, but simple data collection guide
  - Had to balance the presumed needs of community members (e.g., user-friendliness) and researchers (e.g., quantifiable measures)

# Discussion

- Treats entire town as the “neighborhood”
- Help communities document what their local physical, program, and policy landscape offers and what it lacks in terms of physical activity opportunities for youth
- Communities can use this information to identify/prioritize:
  - strengths that exist in their town that they may enhance, or
  - gaps they could address when finding ways to promote physical activity among youth and the community as a whole
- Provides forum for community engagement
- Dissemination of RALA tools will allow for future use at community level and by researchers interested in promotion of physical activity in rural areas

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  - Raters who audited the study areas
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