GIS Hallmarks
Maximizing the benefits of GIS for chronic disease prevention and health promotion.

Chronic disease prevention leaders recognize the tremendous benefits of using geographic information systems (GIS) for a wide range of public health goals – advancing health equity, documenting the burden of disease, enhancing the efficiency of program and policy planning, and more!

However, little guidance is currently available regarding how to build an infrastructure that supports routine use of GIS for chronic disease prevention.

The GIS Hallmarks are a compilation of key policies and practices that maximize the benefits of GIS for chronic disease prevention and health promotion.

The GIS Hallmarks are organized into three categories:

- Building a GIS Savvy Workforce
- Building GIS into Chronic Disease Prevention Work
- Building GIS-Ready Tools & Resources

The GIS Hallmarks were developed by Chronic Disease Directors and NACDD Council members as part of the GIS Capacity Building Project in collaboration with CDC and Rice University.

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Building and Supporting a GIS-Savvy Workforce

<table>
<thead>
<tr>
<th>RECRUITMENT</th>
<th>HUMAN RESOURCES</th>
<th>PROFESSIONAL DEVELOPMENT</th>
<th>TIME ALLOCATION</th>
<th>GIS WORKGROUPS</th>
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</thead>
<tbody>
<tr>
<td>Recruitment of staff with GIS skills is ongoing.</td>
<td>GIS-related skills are factored into job descriptions, questionnaires, interviews and selections.</td>
<td>Training and professional development opportunities related to GIS are provided regularly.</td>
<td>Time is allocated/protected for GIS training and mapping efforts.</td>
<td>Participation in GIS user workgroups is encouraged and supported.</td>
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<thead>
<tr>
<th>GIS SKILLS RECOGNIZED</th>
<th>GIS FOR ALL</th>
<th>SHARING GIS WORK</th>
<th>GIS LEADERSHIP</th>
<th>INVESTMENTS IN GIS WORK</th>
</tr>
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<tbody>
<tr>
<td>Application of and development of GIS skills is recognized.</td>
<td>Non-GIS users, including programmatic staff, learn how to use maps and other GIS products.</td>
<td>GIS users are supported to pursue opportunities to share their GIS work widely.</td>
<td>A GIS leadership position is established.</td>
<td>Administrative and financial investments are made to support GIS staff and work.</td>
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</tbody>
</table>

Visit these websites for examples of how GIS is being used for chronic disease prevention:

- www.cdc.gov/dhdsp/maps
- www.chronicdisease.org/GIS
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Building GIS Use into Chronic Disease Prevention Work

**ROUTINE USE OF GIS and MAPS**

GIS data, products and maps are routinely developed, translated and disseminated to:

- Enhance Surveillance
- Inform policy and program decisions
- Identify common geographic priorities with partners
- Tailor interventions to community needs
- Identify upstream factors and social determinants of health
- Coordinate resources
- Reduce duplication

**HEALTH EQUITY**

GIS are used to bring social determinants of health and health equity considerations into daily work

**STAKEHOLDER INVOLVEMENT**

Stakeholders are routinely engaged in the development, translation and dissemination of GIS products

**GEOGRAPHIC DISTRIBUTION OF ACTIVITIES**

The distribution of efforts/activities across small geographic areas is routinely identified.

**GIS AT ALL LEVELS**

GIS and maps are discussed and used across all levels of administration and in key strategic efforts.

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Building GIS-Ready Tools and Resources

<table>
<thead>
<tr>
<th>GIS-RELATED PROTOCOLS</th>
<th>ACCESS TO GEOCODED DATA</th>
<th>INVESTMENT IN GIS SOFTWARE AND HARDWARE</th>
<th>UTILIZE EXISTING GIS RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems, processes, and protocols are implemented for streamlining and standardizing the development, translation and dissemination of GIS data, products, and maps. Systems, processes, or protocols include:</td>
<td>Access to existing geospatial data or geocoded data is maintained through data use agreements or other methods.</td>
<td>Adequate and consistent administrative and financial investments are made in GIS-related technology, including hardware, software, information technology systems, licenses, training and software support.¹</td>
<td>A variety of GIS resources are routinely used, such as CDC GIS Resources, Community Commons, County Health Rankings, etc.</td>
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<td>• Determining suppression criteria,</td>
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<td>• Age standardization procedures,</td>
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<td>• Geocoding approaches,</td>
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<tr>
<td>• Map templates,</td>
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<tr>
<td>• Standardized shapefiles,</td>
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<tr>
<td>• Branding elements,</td>
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<td>• Labeling conventions,</td>
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<tr>
<td>• Health department clearance/approval processes for GIS products and map dissemination,</td>
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<td>• Map request processes.</td>
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ADDRESS UNMET DATA NEEDS

Options are explored to address unmet GIS data needs through means such as data use agreements with partners.

GIS TECHNICAL ASSISTANCE

GIS users have access to GIS technical assistance, resources, and expertise from available sources such as internal sections/departments or state and local agencies.²

Footnotes:
1. See Section 1: Building and Supporting a GIS-Savvy Workforce for staff/personnel financial support.
2. For example, Dept. of Transportation, Dept. of Education, state GIS office, etc.

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