Cognitive Mapping & GIS
Colorado Institute of Public Policy
Dr. Lyn Kathlene and David Wallick
Systems of Care

- Paradigm shift in social service delivery.
- Social worker is replaced with group of service providers, family & community members.
  - Develop collectively comprehensive plan
- Services are
  - Coordinated
  - Community-based
  - Culturally competent
  - Individualized
Community Resources

- Formal and informal services important to SOC
- Informal least well-known
  - No official directory
  - At community level
  - Examples: church soup kitchens, transportation services for the elderly provided by non-profits or churches, in-home daycare providers not registered with the county.
Resource Identification Mapping

Can identify overlap and gaps in service provision toward a System of Care

Participants identify resources in their community

Categories of mappers:

- Providers (social service, non-profit, faith-based)
- Clients (TANF, youths, foster care providers, adoptive parents)
- Ethnic/racial enclaves (Latino, Russian, Native American, African American)
Mapping Procedure in This Study

- Participants indicate boundaries of area they know best
- Visualization exercise
- Draw in roads and other details by section of map
- Label resources of different types
- Identify resources they use and resources that others use
- Indicate strengths and weaknesses
Mapping Data and GIS

- Coded using Mapquest and phone books to identify exact addresses of datapoints
- Mapping data points entered into GIS into one or more of the 24 various resource layers (i.e., childcare, education, safety/legal, transportation)
- Allows to see proximity of services to clients and to each other
- Can determine overlap and gaps overall and in specific areas or for specific populations
Healthcare Resources:
Cognitive Mapping ID'd vs Resource Guide ID'd

Legend
- Yellow dot: Cognitive Mapping ID'd
- Red dot: Resource Guide ID'd
- Purple line: Colfax Street
- Green area: Jeffco Defined Study Area

Data Sources:
- TIGER Line2000 — US Census Data
- Cognitive Mapping — CIPP at CSU
- Resource Guide — Jeffco Public Schools

Map Created by
Colorado Institute of Public Policy at Colorado State University
In Fort Collins, Colorado
<table>
<thead>
<tr>
<th>School Name</th>
<th>Address</th>
<th>City</th>
<th>Zip Code</th>
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<td>Sobesky Academy</td>
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<td>Lakewood</td>
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<td>303-982-7325</td>
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Future Trends

- Provider Resource Database
  - Searchable web-based provider resource database
  - Identification of physical and/or service areas with inadequate resources in relation to socio-economic deprivation areas

- Needs Assessment
  - conduct comprehensive, quantifiable, and defensible needs assessments for
    - Grants
    - Strategic plan
Benefits of GIS in resource identification

- A comprehensive database of existing services;
- A basis to build communication networks and cooperation among government and community providers;
- The ability to create an efficient system that avoids duplication of efforts;
- An understanding of the geographical distribution of resources;
- The identification of resources lacking in the county and specific communities; and
- Knowledge differences among diverse participant groups