1. To describe why it is important to evaluate health care programs
2. To motivate the importance of evaluating Indiana Medicaid’s Waiver Home and Community Based long-term care program
3. To describe whether Indiana’s Waiver HCBS program is meeting cost, access and quality goals

**What is Health Care Policy?**

Health policy refers to decisions, plans, and actions that are undertaken to achieve specific health care goals within a society.

Modern U.S. policy is focused on cost, access, quality.

How might we evaluate whether health care programs are cost effective, ensure access to needed services and are of high quality?

Long-term Care

Long-term care is intended for those who are chronically disabled in their ability to care for themselves. Nearly all older long-term care recipients (97%) require the help of another to carry out basic activities of daily living (ADL) needed for health and survival.

Activities of Daily Living

- Bathing
- Eating
- Dressing/Grooming
- Toileting
- Transferring/Getting around inside
1 in 5 older adults have at least one ADL disability

Successful and timely completion of ADL is necessary for health and survival
Powell Lawton
Sources of Help for ADL Disabled Older Adults

Many rely on unpaid help from family and friends.

Long-term care is expensive:
- Nursing home ~$70,000 per year
- Assisted living ~$36,000 per year
- Home health ~$29 per hour

Most are unable to afford long-term care.

When personal funds are exhausted, older adults may be eligible for long-term care from Medicaid.

Medicaid and Long-term Care

Long-term care consumes more than 1/3 of states’ Medicaid budgets.

Nursing home care consumes 70% of Medicaid long-term care spending.
**Need for Long-term Care Options**

Analysis of long-term care revealed:

- One-third of nursing home residents are capable of living at home

- Most older adults prefer to avoid nursing home placement and among those who reside in nursing homes, many reported unsatisfactory quality of life

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**Federal Policy and Provision of Long-term Care Services in the Community**

- Americans with Disabilities Act prohibits exclusion, segregation and unequal treatment due to one’s disability status

- The Olmstead decision indicated that unjustifiable institutional isolation of persons with disabilities was in violation of the Americans with Disabilities Act

- Home and Community-based services are an alternative to institutional care established through Section 1915 (c) of the Social Security Act
Medicaid Waivers Provide Home and Community Based Services

Federal government allow state Medicaid agencies to administer 1915 (c) Waiver Home and Community Based services (HCBS) in lieu of nursing home services

(waiver refers to the Federal government waiving state requirements to provide these services equally throughout the state).

Waiver HCBS were considered an alternative to nursing home services which are a mandatory benefit of all Medicaid eligible persons who require long-term care

Medicaid Waiver Home and Community Based Services (HCBS)

To be eligible to receive Waiver HCBS, one must meet eligibility criteria for Medicaid long-term care services (e.g. nursing home care) which includes disability in activities of daily living (ADL) HCBS that may address ADL disabilities are:

- Attendant Care
- Homemaking
- Home Delivered Meals
Objective
To compare costs of care and outcomes of care for Medicaid patients whose long-term care is provided in a nursing home versus in the community through HCBS

Methods
Study Design: Twelve-month prospective study of Medicaid recipients aged 65 and older.

Subjects: Indiana Medicaid recipients with dementia who lived in the community 6 months before receiving long-term care through nursing homes

Data Sources: Indiana Medicaid administrative data from 2001 through 2004.

Measurements: Monthly inpatient rates and total expenditures adjusted for prior use, demographics, insurance status, and comorbidities
Subject Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Nursing Home n=1,352</th>
<th>Home Care* n=137</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 80+</td>
<td>49%</td>
<td>47%</td>
<td>.73</td>
</tr>
<tr>
<td>Female</td>
<td>77%</td>
<td>85%</td>
<td>.02</td>
</tr>
<tr>
<td>White</td>
<td>83%</td>
<td>71%</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Married</td>
<td>11%</td>
<td>13%</td>
<td>.25</td>
</tr>
</tbody>
</table>

*To qualify for home-based long-term care, the recipient must be nursing home eligible

Monthly Expenditures over One Year

![Graph showing monthly expenditures over one year for different groups.](image-url)

- Nursing home care
- Waiver HCBS

Time by group interaction: p = <.01
Hospital Use over One Year

Probability of Monthly inpatient service utilization

<table>
<thead>
<tr>
<th>Month</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5*</th>
<th>6*</th>
<th>7*</th>
<th>8*</th>
<th>9*</th>
<th>10*</th>
<th>11*</th>
<th>12*</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiver</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>


Summary of Differences in Outcomes Between NH and Waiver HCBS

Medicaid expenditures for Waiver HCBS patients were consistently less than NH patients

However, four months after enrollment, Waiver HCBS patients were significantly more likely to be hospitalized than NH patients

Might some aspect of HCBS delivery be associated with patient outcomes?
Objective
To determine whether volume of HCBS services is associated with future hospitalization and nursing-home placement.

Methods
Study Design: Prospective study of Medicaid recipients aged 65 and older.

Subjects: Indiana Medicaid recipients (N = 1,354) enrolled in the Aged and Disabled waiver program

Data Sources: Indiana Medicaid administrative data from 2001 through 2004.

Measurements: Time to hospital admission, time to nursing-home placement since enrollment in the HCBS waiver program, adjusted for demographics, comorbidities, prior use of health services. The independent variables were volume of HCBS received, including attendant care, home-making, and home-delivered meals.
**Type and Volume of Care Received**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>% with &gt;8 hours of attendant care per month</th>
<th>% with &gt;5 hours of homemaking per month</th>
<th>% with &gt;11 home delivered meals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age: &lt; 75</td>
<td>49%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>75+</td>
<td>50%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Female</td>
<td>51%</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>Male</td>
<td>41%</td>
<td>25%</td>
<td>29%</td>
</tr>
<tr>
<td>ADL Dependencies</td>
<td>45%</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>52%</td>
<td>28%</td>
<td>29%</td>
</tr>
<tr>
<td>3</td>
<td>48%</td>
<td>17%</td>
<td>18%</td>
</tr>
</tbody>
</table>

**Association Between Volume of Attendant Care and Risk for Hospitalization**

*Beginning in month 15, the association between volume of attendant care and Hospitalization was non-significant. Similar trends were seen for Homemaking.*
**Association Between Volume of Attendant Care and Risk for Nursing Home Admission**

<table>
<thead>
<tr>
<th>Home-Based Service</th>
<th>Hazard for Nursing Home Admission (95% Confidence Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendant Care (per 5 hours)</td>
<td>0.95 (0.92 – 0.98)</td>
</tr>
<tr>
<td>Homemaking (per 5 hours)</td>
<td>0.83 (0.72 – 0.96)</td>
</tr>
<tr>
<td>Home delivered meals (per 5 meals)</td>
<td>0.85 (0.85 – 1.02)</td>
</tr>
</tbody>
</table>

**Summary of Association Between Type and Volume of HCBS and Patient Outcomes**

Compared to no attendant care, 5 hours of attendant care decreased patients’ hazard for:

- hospitalization (Xu et al., JAGS, 58(1):109-115,2010)
- nursing home placement (Sands et al., MMRR,2(3)1-21, 2012)

As hours of attendant care increased beyond five hours, hazard for these outcomes decreased proportionately

Similar findings were found for other home-based long-term care services such as homemaking and home delivered meals.
Limitations

Claims data do not have the fidelity that can be achieved with data collected for research projects.

Even though analytic models were driven by theoretical frameworks, one cannot control for all potential confounding factors.

Nonetheless, results are based on data with high face validity and reveal need for further evaluation of current community-based long-term care practices.

Conclusion

Indiana’s Waiver HCBS program are only partially meeting program goals in terms of cost, access and quality goals.

Results from this evaluation are of use to:

- Clinicians who need to be informed which patients may benefit from further evaluation of their long-term care needs
- Policy makers who need to be informed of the effectiveness of programs in meeting needs of beneficiaries and improving efficiency of limited resources.
Partners

- Indiana FSSA, Caroline Carney-Doebbeling, MdWise
- Centers for Medicaid and Medicare Services (CMS)
- RESDAC
- Eric Stallard, Duke University
- Ken Covinsky, UC San Francisco
- Huiping Xu, Michael Weiner, Marc Rosenman, IU School of Medicine
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