



Identifying “Appropriate” Applicants for Home and Community Based Services: The MI Choice Screening System

This research brief describes an initiative to design and test a screening system for Michigan’s home and community based (HCBS) long-term care programs. The core of the system is 32 items from the Minimum Data Set for Home Care (MDS-HC),¹ which can be used as a series of questions asked over the telephone or as part of a complete assessment. The telephone screen is used to direct some individuals immediately to information and referral services, while others, determined to be potentially eligible for supportive services, receive an in-person evaluation that, among other things, suggests the “most appropriate” level of care. Testing of the system found that nearly a quarter of callers seeking long-term care assistance did not require costly in-person assessments. It also found that the MI Choice screening algorithm performed far better than other screening tools in predicting the appropriate level of care, as determined by the expert opinion of “gold standard” care managers. The study was supported by the Robert Wood Johnson Foundation and conducted through a collaboration of the Michigan Department of Community Health, the University of Michigan, and Boston’s Hebrew Rehabilitation Center for the Aged.

The Problem: Allocating Scarce Resources More Equitably

Across the country, state governments face a growing demand for community based long-term care along with limited finances to meet this demand. Targeting services to the people most in need is essential. However, the vast majority of the nearly 250 state-sponsored long-term care (LTC) screening programs identified (Tonner et al., 2001) rely on “homegrown” instruments that have not been tested empirically either for their reliability or to determine if the “right” population is being identified.

Michigan Needed Reliable Data

Developing a new, empirically-derived targeting method was part of a larger effort undertaken by Michigan to moderate growth in LTC expenditures, increase the state’s capacity for “data-driven” policy decisions, and support the creation of an integrated LTC information system. The Minimum Data Set for Home Care (MDS-HC) was selected for use in the MI Choice Medicaid waiver and state funded care management (CM) programs, for the following very practical reasons:

¹ The Minimum Data Set for Home Care (MDS-HC) was designed to be an assessment system to inform and guide comprehensive care planning in the home care environment across the world.

- It was compatible with data produced by the nursing home MDS, enabling comparison and analysis of persons served in both settings.
- Its reliability and validity was well established (Sgádari et al., 1997; Morris et al., 1997; Morris et al., 2000).
- It provided clinically-driven care assessment protocols, as well as a variety of validated measures to monitor individual outcomes.

Michigan also invested in a system to collect the MDS-HC data, link the assessment data to service orders and provider bills, and enable development of reports tailored to various administrative and clinical needs. This effort, known as the MI Choice Information System, or MICIS, supports both home and community-based care programs in Michigan. Expenditures for MICIS in FY 2002, including training for all users, were under 2% of total program costs.

Designing the MI Choice Screen

Setting the gold standard

Each Area Agency on Aging (AAA) operating relevant programs identified at least one care manager (either a Registered Nurse (RN) or a masters prepared social worker (MSW)) considered their best assessor. These assessors received training in correct administration of the MDS-HC, which included a series of fictional vignettes developed to help assessors make “gold standard” judgments about the “most appropriate” level of care (LOC) for persons seeking services (see Table 1).

Deploying the instrument

A total of 813 individuals received dual assessments – one conducted by regular agency staff using the state’s existing assessment tool and one, within four days of the agency’s regular initial assessment, by a gold standard assessor using

TABLE 1: LEVEL OF CARE CATEGORIES (LOC)

Nursing Home

Institutional care

Home Care

Intensive skilled nursing care/therapy services (3+ times per week; may be with personal or homemaker services); OR

Minimal skilled nursing care/therapy services (1 or 2 times per week; may be with personal or homemaker services); OR

Intensive personal care services (daily assistance for multiple tasks; may be with homemaker services)

Intermittent Personal Care

Minimal personal care services (less than daily or for single task; e.g., bathing; may be with homemaker services)

Homemaker Services

Homemaker services primarily (not personal or skilled home care)

Information and Referral

Remain in current setting with no formal services

the MDS-HC. Three groups were assessed: persons determined eligible for waiver or CM services based on the state’s current screening process; persons seeking diversion from a nursing home; and persons found ineligible for services other than Information and Referral. The gold standard assessors also provided their expert opinion on the most appropriate level of care for each person, independent of the presence of informal care and the cost of formal services.

Testing the results

Researchers then used data from the MDS-HC assessments to determine what combination of items would best predict the most appropriate level of care for potential clients, as determined by the “gold standard” assessors. A variety of screening algorithms was tested, including Michigan’s existing system, experimental models derived from the MDS-HC, and systems from other states and Canadian provinces.

Key Design Considerations

The research team sought to:

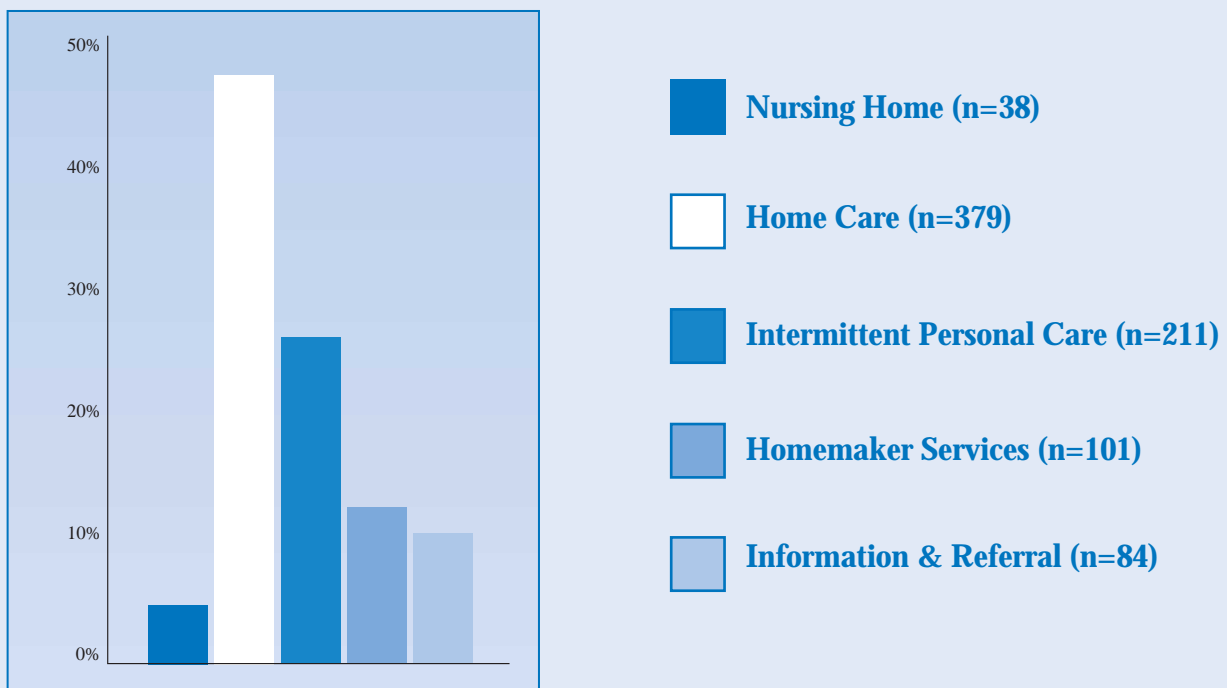
- Minimize costs for the state by developing a screening system that would place people appropriately among the five LOCs.
- Ensure that the results of the screening system closely matched the gold standard assessors’ prediction (measured by the “kappa score”).

- Minimize the number of people who were not picked up by the screening tool but were truly eligible (false negatives). The aim was a system that would cast a wide net, potentially identifying all individuals who might be eligible, rather than creating a system that would find ineligible people who rightly needed assistance.

Other Tools Did Not Work as Well as the MDS-HC

The gold standard predictions were compared to the predictions yielded by a variety of screening systems (as modeled by MDS-HC data). Three screening systems used by other states and provinces identified a wide-ranging 38% to 99% of the study sample as eligible for services and demonstrated a poor fit between their recommended levels of care and those of the gold standard assessors. Other methods, based on combinations

FIGURE 1: GOLD STANDARD ASSESSORS’ RESULTS: DISTRIBUTION OF LEVELS OF CARE (LOC)



of Activities of Daily Living (ADLs) and Instrumental ADLs (IADLs), which measure physical and cognitive functioning, also demonstrated a poor fit with the gold standard assessors' recommendations. The best results were achieved through a screening logic that depended heavily on ADLs and IADLs, but also used measures of cognitive functioning, agitation, and daily hours of physical activity (diagnoses, however, were not found useful). When applied to the study sample, this system correctly classified 58% of the participants, demonstrating a good fit with the gold standard assessors' recommendations (a kappa of 0.62). Individuals who were misclassified were most often classified into a more intense LOC. In 77% of the misclassifications, the difference was only one level. The system was highly adept at identifying both people who were deemed in need of nursing home care and those who were not.

How Michigan Uses the Screening System

The MI Choice telephone screen

The screen, which has been mandatory for three years, is used to decide who will receive a full in-person assessment. It uses 32 items from the MDS-HC instrument, rewritten as questions that take about 15 minutes to complete.

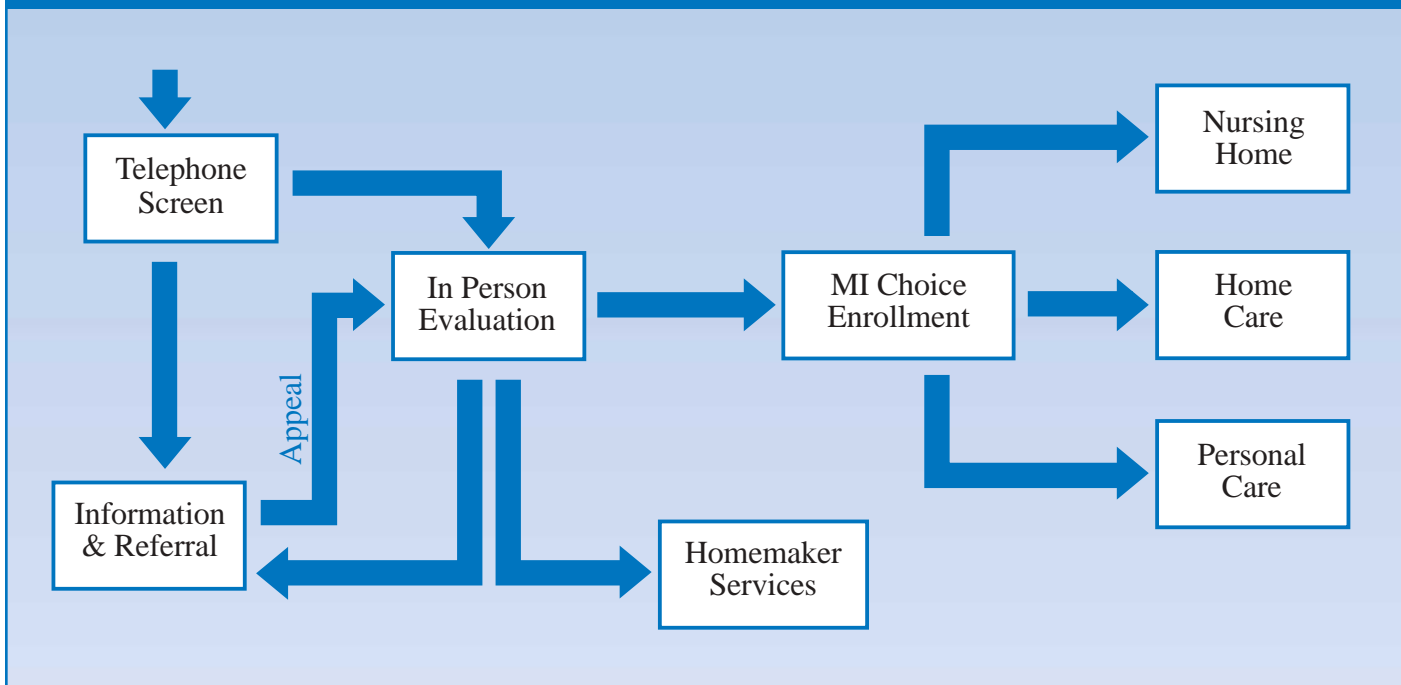
The MDS-HC assessment

Those who pass the screen receive a full assessment, which employs the same logic used in the telephone screen to indicate the appropriate LOC. Other items on the full assessment aid in care planning, client monitoring, and quality improvement.

Flexibility is key

Screeners have discretion in deciding to perform in-person assessments of persons who do not initially score into the nursing home or home care

FIGURE 2: THE MI CHOICE SYSTEM



categories. Similarly, an assessor can opt to override the placement algorithm following the in-person assessment, taking into account the individual's personal preferences for care setting or availability of informal care. Allowing flexibility was important in ensuring the new system's acceptability in the field.

Information systems allow assessment data to be used to inform policy decisions

Data collected in the assessments become part of the rich MICIS database. MICIS contains information on over 26,000 persons enrolled in these programs since 1999, and contains multiple assessments on individuals. These data can be used to reveal what happens over time to people in each LOC, fine-tune eligibility policy, and design more responsive service packages.

Unanswered Questions

- **Can the telephone screen replace the in-person assessment?**

We don't yet know. Although the same MDS-HC items are used for the telephone and in-person screen, good placement decisions that go beyond screening out obviously ineligible individuals may need the extra information garnered by an in-person assessment. MDS-HC items are known to have good reliability when used in face-to-face assessments that use all available information sources. However, they may not work as well when respondents have

cognitive deficits or hearing difficulties, or when there is a surrogate respondent who has only partial knowledge of the individual being assessed. Future research that contrasts individuals' telephone screens against their in-person assessments will answer this question.

- **Can the MI Choice screen be used for other target populations?**

Yes. MI Choice was originally intended for use in a statewide single point of entry system to screen a wide variety of persons seeking either HCBS or institutional care. Several states are considering its adoption for such a purpose. The screen is also being tested to prioritize persons living in institutional settings for possible return to the community. The Department of Veterans Affairs has also adopted it.

- **Can other states adopt the MI Choice system?**

Perhaps. An individual's need for services is, in the end, intrinsic to that person. Thus, MI Choice's selection of characteristics predictive of that need should be unaffected by states' varying eligibility policies, their different service packages, and their different policy goals for LTC funds. Nevertheless, each state responds somewhat differently to individual needs. States considering adoption of the MI Choice screening system may wish to ensure its appropriateness by conducting validation studies to test its performance and by clearly identifying the population they wish to target.

Policy Implications

- Policymakers cannot take the efficacy of their programs' screening tools for granted.
- Telephone screens can successfully reduce the number of individuals who need to be seen in person without turning away genuinely eligible individuals.
- The MDS-HC provides a useful basis for a screening system, placement logic, and client monitoring tool.
- Comprehensive and integrated long-term care data systems yield important systems benefits and can be implemented at reasonable cost.

More information about this work can be found in the following articles:

- Morris JN, Fries BE, Steel K, Ikegami N, Bernabei R, Carpenter GI, Gilgen R, Hirdes JP, Topinková E. "Comprehensive Clinical Assessment in Community Setting: Applicability of the MDS-HC" *J. Am. Geriatrics Soc* 45(8):1017-1024, 1997.
- Morris JN, Fries BE, Bernabei R, et al. *RAI-Home Care (RAI-HC) Assessment Manual for Version 2.0*. Marblehead, MA: Opus Communications 2000.
- Sgádari A, Morris JN, Fries BE, Ljunggren G, Jónsson P, DuPasquier J-N, Schroll M. "Efforts to Establish the Reliability of the Resident Assessment Instrument" *Age and Ageing*, 26 Suppl. 2: 27-31, 1997.
- Tonner MC, LeBlanc AJ, Harrington C. "State Long-Term Care Screening and Assessment Programs" *Home Health Care Services Quarterly*, 19(3):57-85, 2001.

THIS POLICY BRIEF WAS WRITTEN BY

BRANT E. FRIES, PH.D., AND MARY JAMES, MA

OF THE UNIVERSITY OF MICHIGAN INSTITUTE OF GERONTOLOGY



THE HOME CARE RESEARCH INITIATIVE:

A PROGRAM OF THE
ROBERT WOOD JOHNSON
FOUNDATION

www.vnsny.org/hcri

The Home Care Research Initiative, a program of The Robert Wood Johnson Foundation, was established to support research and analysis that will improve the knowledge base underlying home care policy and practice. It is based at the Center for Home Care Policy and Research at the Visiting Nurse Service of NY.

CENTER FOR HOME CARE POLICY AND RESEARCH
 VISITING NURSE SERVICE OF NEW YORK

107 EAST 70TH STREET NEW YORK, NEW YORK 10021

PH. 212.794.6300 FAX 212.794.6610

The views expressed by the authors of this policy brief are not necessarily the views of the Home Care Research Initiative or The Robert Wood Johnson Foundation.