HOME CARE FOR VENTILATOR-DEPENDENT PERSONS: A COST-EFFECTIVE, HUMANE PUBLIC POLICY

JAGAT K. MOTWANI and GAIL M. HERRING

The study measured cost-effectiveness of home care for severely disabled persons. Findings support home care as more cost-effective than other alternatives for ventilator-dependent persons. Home care-related policy reform in Medicaid, Medicare, Supplemental Security Income, and subsidized housing, coupled with a coordinated service delivery system, could save millions of public dollars. To accomplish this, policies must accommodate and encourage independent community living for the disabled and the integrity of their families.

A bill was introduced in the 1983 New York State legislature to eliminate 24-hour home attendant care with a few exceptions, and to put a cap on the number of home care hours that can be provided. The legislation was based on the belief that in most cases, home care was not cost-effective compared with institutionalization. This study was undertaken in 1984 in a context of growing national sensitivity to the value of family to disabled persons and governmental concern about the soaring Medicaid cost for home care. The article presents findings on cost-effectiveness of home care for ventilator-dependent persons public policy and discusses implications.

METHODOLOGY

Subjects and Data Collection

Nine subjects were selected from among those discharged from the Howard A. Rusk Respirator Center of the Goldwater Memorial Hospital (GMH) in New York and one from the Department of Rehabilitation Medicine. The group was limited to persons who

- were ventilator- and activities of daily living (ADL)-dependent disabled adults;
- lived in the community with 24-hour (dual-shift) home attendant care;
- had lived in the community for at least two years at the time of the study;
- had been hospitalized continuously for at least five years immediately before discharge; and
- were receiving follow-up medical care at GMH.

These former patients also were selected because almost all had expensive home care expenses such as respirators, motorized wheelchairs, prescriptions, visiting nurse services, and disposable surgical supplies, in addition to dual-shift, around-the-clock attendant care. The sample, therefore, appeared biased against the hypothesis of this study, that the cost...
Table 1. Home Care Cost Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Average Annual Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td></td>
</tr>
<tr>
<td>Home attendant care (two 12-hour attendants)</td>
<td>35,916</td>
</tr>
<tr>
<td>Hospitalization</td>
<td>305</td>
</tr>
<tr>
<td>Doctor’s office outpatient department clinic</td>
<td>59</td>
</tr>
<tr>
<td>Visiting nurse service</td>
<td>680</td>
</tr>
<tr>
<td>Prescriptions</td>
<td>600</td>
</tr>
<tr>
<td>Surgical supplies</td>
<td>1,200</td>
</tr>
<tr>
<td>Wheelchair rent and maintenance</td>
<td>1,200</td>
</tr>
<tr>
<td>Rental maintenance of respirators</td>
<td>10,800</td>
</tr>
<tr>
<td>Medicaid transportation</td>
<td>320</td>
</tr>
<tr>
<td>Total</td>
<td>51,080</td>
</tr>
<tr>
<td>Non-Medicaid public assistance</td>
<td></td>
</tr>
<tr>
<td>SSI</td>
<td>1,860</td>
</tr>
<tr>
<td>Food stamps</td>
<td>300</td>
</tr>
<tr>
<td>Housing subsidy</td>
<td>4,800</td>
</tr>
<tr>
<td>Total</td>
<td>6,960</td>
</tr>
<tr>
<td>Total cost of home care (Medicaid plus non-Medicaid)</td>
<td>58,040</td>
</tr>
</tbody>
</table>

of round-the-clock home care of severely disabled respiratory patients is not more than that of appropriate institutional care.

A 31-item questionnaire was prepared with the help of health professionals and a ventilator-dependent patient. The data were collected from subjects, hospitals, and providers of home care services, including a GMH physician, a Medicaid physician, and professionals at a visiting nurse service, a skilled nursing facility, a pharmacy, and a utilization review service.

Level of Institutional Care

To determine the appropriate level of institutional care each subject would need as an alternative to community living, opinions were sought from the subjects themselves and medical professionals who had worked with them. The medical professionals and the subjects all believed that the appropriate level of institutional care for each of the 10 subjects would only be a respiratory center such as that at GMH. In general, respirator-dependent patients are cared for in acute-care hospitals in intensive care or special respiratory wards. Acute care hospital cost is much higher than the cost of care at GMH. Nursing homes are not adequately equipped with the human power, equipment, and technology necessary to care for such severely disabled respiratory patients. A skilled nursing facility director said: “Upgrading of a skilled nursing facility to the appropriate level of care for such respiratory patients is financially not feasible. If it is done, the Medicaid reimbursement rate has to rise tremendously.”

COMPARATIVE COST ANALYSIS

Home Care Cost

The average annual home care cost per person in 1983 totaled $58,040—$51,080 for health cost and $6,980 for living expenses. The annual care costs for the 10 subjects ranged from $50,240 to $61,970. The cost of the hypothetically most expensive case, derived by listing the maximum on every home care-related item, was $68,987 (Table 1).

In addition, the subjects enjoyed good health after discharge. Six of the subjects were never hospitalized overnight during 1983. Three were hospitalized for one to two days for checkups on minor illnesses, and one was hospitalized for a longer period. All 10 saw doctors for regular checkups.

Institutional Care Cost

Respiratory centers such as that at GMH are economical because they cost less than an intensive care unit (ICU), which is the only alternative
Table 2. Comparative Staffing of Respiratory Care and Nonrespiratory Care Wards at GMH

<table>
<thead>
<tr>
<th>Ward</th>
<th>MD</th>
<th>RN</th>
<th>LPN</th>
<th>NA</th>
<th>Clerks</th>
<th>Total Staff</th>
<th>Total Patients</th>
<th>Staff/Patient Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory care</td>
<td>2</td>
<td>10</td>
<td>2</td>
<td>12</td>
<td>1</td>
<td>27</td>
<td>16</td>
<td>1/0.59</td>
</tr>
<tr>
<td>Nonrespiratory care</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>12</td>
<td>1</td>
<td>24</td>
<td>38</td>
<td>1/1.58</td>
</tr>
</tbody>
</table>

MD = physicians.
RN = registered nurses.
LPN = licensed practical nurses.
NA = nurse’s aides.

institutional care for respirator-dependent patients. GMH had three sections: (1) chronic medicine, (2) rehabilitation medicine, and (3) the respiratory center. The Medicaid hospital reimbursement rate was $217.91 per day. The same Medicaid reimbursement rate applied to the patients of all three sections, although actual per capita expense differed from section to section. Therefore, the annual per-patient Medicaid cost for these sections was estimated to be $79,537. Home care therefore cost $21,497 less per year than hospital care in the respiratory center at the Medicaid reimbursement rate. Other studies have shown that home care of respirator-dependent persons is cost-effective, ranging from $96,000 to $612,180 per year.

Despite the fact that GMH charged Medicaid rate to the patients of all three hospital sections, the actual cost of ventilator-dependent patient care was much higher than that of the patients in other GMH sections because of the higher staff levels required for respiratory care (Table 2). The staff–patient ratio on the respiratory care ward compared with on the nonrespiratory care ward suggests that the staff cost of one ventilator-dependent patient would be approximately 2.67 times that of one nonrespiratory care patient. A respiratory care ward also costs more than a nonrespiratory care ward for other items such as space, disposable surgical supplies, and equipment.

The real cost of respiratory patient care is therefore more than twice that of a non-respiratory care patient. Davis et al. reported that the cost of mechanically assisted ventilation for 21 pulmonary patients was twice that of other hospitalized patient groups not requiring respirators. In October 1981, the daily rate in the respirator ward in one hospital was $493.50. Thus, it can be argued that the real hospital care cost for ventilator-dependent patients is more than that estimated above, and hence home care would be even more cost-effective than stated above.

Home Health Aide and Home Care Cost

A 1983 New York State regulation requires that respiratory patients have home health aides rather than home attendants. Home health aides have more formal training that enables them to provide safe and adequate respiratory care. The patients in this study have been cared for adequately for years by home attendants without health complications or malpractice. Home care by home health aides is very expensive, but compared with the ICU Medicaid reimbursement rate or the actual cost of GMH respiratory care, it still is cost-effective.

POLICY REFORM

Medicaid, attendant care, and income maintenance are the three most important home care services. Medicaid finances attendant care and several other medically related items. Attendant care is the most expensive home care service. Family participation is essential to economize on attendant care. Therefore, Medicaid and income maintenance policies should be more family oriented.

Medicaid Responsibility and Spend-Down Policies

Medicaid financial obligations and spend-down policies are problems that force some families to institutionalize a disabled family
member. This policy results in a huge Medicaid dollar loss and emotional trauma to the patients and their families. Medicaid regulations should be studied to determine if the family responsibility policy is at least revenue neutral.

The situation of Katie Beckett, a ventilator-dependent child, drew President Reagan's attention to the counterproductive effects of the Medicaid parental responsibility rules. As a result, he announced in November 1981 that Supplemental Security Income (SSI) eligibility rules would be waived to help Katie Beckett return home without losing Medicaid benefits. Unfortunately, this waiver was not extended to spousal Medicaid responsibility.

The current spend-down policy also discriminates against those who have lived a responsible and productive life before becoming disabled. Medicaid eligibility requires these individuals to exhaust their savings. The ongoing spend-down policy reduces them to welfare budgets and puts them virtually at par with SSI recipients who have never worked. In some cases, spend-down Medicaid recipients may end up getting less net income than SSI recipients, if they receive housing subsidies. The former are required to pay a higher rent if their income is more than the SSI income, because the subsidized rent is approximately 20 to 30 percent of the tenant's income, irrespective of the size of the apartment. Thus, the SSI recipients, after paying rent, will have more money left for food and other expenses than their spend-down counterparts. The income penalty for spend-down Medicaid recipients increases with income. In most cases, spend-down Medicaid recipients fail to qualify for food stamps, and as a result the real income gulf between the two groups is enlarged further.

Medicaid eligibility policy should incorporate pecuniary incentives to encourage the disabled to work. The spend-down policy discriminates against working disabled persons because working able-bodied people enjoy all of their income, whereas working disabled people have to pay toward spend-down for their disabilities.

SSI and Home Care Policies

SSI and home care policies also are counterproductive and punitive to family members of disabled persons. If a relative agrees to care for a disabled SSI person at home, the SSI amount is reduced to the lowest level and home care service to the minimum. The caring relative has no respite. In some cases, providing care can become a financial strain. Burr et al. found that "Despite dramatic cost savings resulting from home care...families were penalized financially for bringing their children home." To encourage more families to care for their relatives and friends, the home care-related policies should offer financial and other incentives, including tax benefits. Such policies could save thousands of Medicaid dollars and prevent institutionalization. Families' financial, physical, emotional, and time resources should not be strained by public policies in the belief that the family can and should withstand stress. Human resources are finite and therefore should be tended carefully.

Toward an Effective Home Care Service Delivery System

Independent living of disabled persons requires four major supportive services: Medicaid, income maintenance, attendant care, and subsidized housing. In New York City, the four basic home care services are administered by four different bureaucratic systems, totally independent of, and geographically distant from, each other. Such a complex and uncoordinated service delivery system produces tremendous delays. Securing housing can in some cases take up to two years, and securing attendant care, a minimum of six weeks. Attendant care can be applied for only after having secured appropriate housing. In some cases, Medicaid eligibility requirements further delay discharge of patients from hospitals.

The fragmented bureaucratic service delivery system results in the loss of thousands of dollars in each case and, at any time, hundreds of patients are waiting unnecessarily in institutions that include expensive acute care hospitals. The Medicaid administration instead should give temporary housing subsidy vouchers and instant temporary home care approval at the recommendation of the discharging hospital social worker.

HOME CARE FOR THE VENTILATOR-DEPENDENT 23
CONCLUSION

Home care in most cases is cost-effective, and it could be made more so if related policies were more family oriented. These programs should provide incentives for the disabled to work and for the families to care for their disabled members. This conclusion also was reached by Lee et al., who stated:

Community-oriented care has been a growing trend, proving to be cost-effective, and has resulted in healthier, happier lives for ventilator-dependent individuals. We offer as proof our successful experience for over 25 years at the Howard A. Rusk Respiratory Center of Goldwater Memorial Hospital, an affiliate of New York University Medical Center, New York, New York. 8

A dynamic, innovative, coordinated home care supportive service delivery system must be devised to expedite discharges from hospitals, which, in turn, will save thousands of Medicaid dollars and prevent human misery.

About the Authors

Jagat K. Motwani, DSW, is Assistant Director, Department of Social Service, New York University Medical Center, Goldwater Memorial Hospital, Roosevelt Island, NY 10044. Gail M. Herring, MSW, is Director, Department of Social Service, Goldwater Memorial Hospital, New York. This article is a revised version of an invitational paper presented at the Ninth National Association of Social Workers Professional Symposium, Chicago, Illinois, November 1985.

Notes and References


Accepted April 9, 1987

Maternal and Child Health Training Program
School of Public Health
San Diego State University

A nine-month course of study leading to an MPH degree. The program prepares multidisciplinary trainees for leadership roles in the broad field of maternal and child health. Traineeships are available. Experienced master’s degree social workers who are interested in upgrading their career potential are invited to write for information to:

Allan C. Oblesby, M.D., M.P.H., or Betty Bassoff, D.S.W., A.C.S.W.
Maternal and Child Health Program
School of Public Health
San Diego State University
San Diego, CA 92182-0405

Downloaded from https://academic.oup.com/hsw/article-abstract/13/1/20/595307/Home-Care-for-Ventilator-Dependent-Persons-A-Cost by guest on 17 September 2017