Seven Reasons Why It Is So Difficult To Make Community-Based Long-Term Care Cost-Effective

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A decade of research on home- and community-based long-term care shows that few of the assumptions behind expectations of its potential cost-effectiveness were warranted. Few who use home- and community-based long-term care would otherwise have been long-stayers in nursing homes. Long-stayers tend to be older, sicker, more dependent, and poorer in social resources than those who use community care. Fewer still who use community care actually have their institutional stay averted or shortened by its use, even if they are at risk. But more effective targeting on those most likely to be institutionalized may lead to high screening costs and small, inefficient programs, because few patients in the community fit the profile for high risk of institutionalization. Conversely, the very sickest and most dependent patients may be cheaper to serve in a nursing home than in the community. Patient outcome benefits have also been limited: except for the higher contentment levels found in some studies, community care appears to produce no special outcome benefits in longevity, physical or mental functioning, or social activity levels. Nonetheless, community care serves a sick, dependent, and—most people would agree—deserving population of patients and their caretakers. A refocusing of public policy to target specifically on the functionally dependent rather than the aged per se may be the best hope for public support for community care.

Few public policy proposals are more appealing than the notion that sick old people can be cared for better and more cheaply in their homes than in nursing homes. Indeed, the very idea that home- and

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community-based long-term care will not save money seems counter-intuitive. Yet, after a decade of research, the facts as we now understand them make that conclusion unavoidable. Community care rarely reduces nursing home or hospital use; it provides only limited outcome benefits; and to this point, it has usually raised overall use of health services as well as total expenditures.

A Complement, Not a Substitute

One reason it fails to reduce institutionalization is that most patients who use home and community care are using it as an add-on to existing care rather than as a substitute for institutional care. That is, with or without community care, they would *not* have gone into a nursing home. We know this from experiments and quasi-experiments in which a control or comparison group of patients received no expanded home or community care benefits. Table 1 reviews several such studies. The numbers in the right-hand column are the institutionalization rates for the control group of each study. These rates show that the vast majority of community care recipients were not at risk of institutionalization and would have stayed out without community care. Hospitalization rates in these same studies were even lower.

Yet to avoid adding new costs, spending for community care must be offset by reduced nursing home or hospital use. But with such low rates of institutionalization in the control group, we know that most patients are not using it as a substitute; they are using it as an add-on to the existing array of services.

This simple reality is the first and primary reason that home- and community-based care offers little hope of cost-effectiveness as an alternative to institutionalization: most patients who use community care are not at risk of institutionalization.

Only Short Nursing Home Stays Avoided

The second reason is closely related. That is, even the small group of community care users who are at risk of institutionalization are at risk of only a short stay. Only a small proportion of patients who enter nursing homes are destined to become long-stayers. Most admissions die quickly or are discharged to other settings, including the community. A surprising 25 percent go back to their own homes, and an

Table 1: Effectiveness of Community Care Demonstration Projects in Targeting on Persons at Risk of Nursing Home Institutionalization

Demonstration Project	*Percent of Control Group Members Institutionalized**
Section 222 Day Care Experiment†‡	21.0
Section 222 Homemaker Experiment†§	18.0
Triage‖¶	7.0¶¶
Michigan Home Health Aide Teams†**	2.1
Wisconsin Community Care Organization‖††	15.7***
Georgia Alternative Health Project†‡‡	22.0
Five-Hospital Home Health Project‖§§	23.0†††
National Channeling Demonstration†‖‖	13.7‡‡‡

*Institutionalization rates are for the control group except Triage, and are for 12 months unless noted otherwise.
†Controlled experiments.
‡Reference 13.
§Reference 14.
‖Quasi-experiments.
¶Reference 19.
**Reference 17.
††Reference 16.
‡‡Reference 20.
§§Reference 21.
‖‖Reference 12.
¶¶For 36 months.
***Time period unclear.
†††For 9 months.
‡‡‡For 6 months.

additional 3 percent of admissions go to settings such as retirement homes [1–4]. Inevitably, such patients have very short nursing home stays, almost invariably under 3 months, often less than a month.

Community care users resemble the subgroup of nursing home short-stayers who go back home shortly after a nursing home admission [1]. They are younger than long-stay nursing home patients; less likely to be dependent in eating or toileting; likely to have suffered fractures rather than mental illness, cancer, or heart disease; and more likely to be married. Long-stay residents of nursing homes tend to be devoid of physiological, functional, and social capabilities. They suffer the interactions of major deficits in multiple domains [5–11]. Community care users tend to suffer deficits in one or two domains, not three or four.

Not surprisingly, then, community care patients when they do enter a nursing home or hospital tend to have short stays—too short to recoup major outlays for community care even if the stay is shortened or avoided. This is the second reason why it is so difficult to make community care cost-effective: even the small proportion of commu-

nity care users who are at risk of institutionalization are at risk of short stays, not of long enough stays to produce major savings.

EFFECTS ON INSTITUTIONALIZATION SMALL

Nor has community care been especially effective in reducing or avoiding even these short stays. In most studies, including preliminary findings from the large National Channeling Demonstration project [12], community care has not made a statistically significant difference in rates of nursing home or hospital admission or in length of stay when patient characteristics are taken into account [13–20]. In one published study [21], nursing home length of stay was reduced by 10 percent. Hospitalization and length of hospital stay were unaffected. In a study not yet published [22], nursing home use reportedly dropped by a small but statistically significant amount. In neither case was the drop large enough to produce savings in excess of the new outlays for community care which produced them.

This is the third reason why it is difficult to make community care cost-effective: the magnitude of effect of community care on institutionalization rates has been small, so that even when savings are produced through reductions in nursing home use, they are usually too small to offset costs of community care either in 1 year or in several years of study.

Nor is the problem too short a treatment period. Treatment and control group rates of institutionalization have typically dropped in subsequent years of multiyear studies, meaning that even fewer patients were at risk of institutionalization. This may happen because those served in the first year of a new program tend to be patients who were bunched in the community awaiting some source of care [23]. Later-year admissions may enter care earlier, be served longer, and be at risk of a lower average rate of institutionalization, making it even harder to produce savings to offset community care costs.

FEW ELDERLY IN HIGH-RISK GROUP

A fourth reason why community care is so difficult to make cost-effective is really more an explanation for the first three reasons than a separate reason in itself. For clarity, and because it is so important an underlying fact, it is presented as a separate reason. It is simply that

patients at high risk of institutionalization are very difficult to find in the community. Over 90 percent of nursing home patients are dependent in personal care (bathing, dressing, toileting, continence, transferring, or eating). Two-thirds are unmarried. Consequently, to be at high risk of becoming a nursing home long-stay resident, an individual living in the community should *at the least* be dependent in personal care and unmarried. Without these two problems, the probability of institutionalization is very low [5]. Yet prevalence estimates show that only about a million personal care-dependent aged individuals are living in the community, and that more than half of them are married [24]. This represents a national prevalence rate of aged, unmarried, personal care-dependent individuals of less than 2.5 percent. This means that in a catchment area which includes an entire moderate-sized city of half a million people, if 11 percent are elderly, fewer than 1,500 individuals are personal care-dependent and unmarried. Fewer still also suffer the high-risk diagnoses typically associated with institutionalization. When patient preferences, competing sources of community care, mortality rates among the high-risk group, and eligibility restrictions are added to the equation, the potential for finding, serving, and affecting the institutionalization rates of a group of high-risk elderly patients becomes quite small. This explains why programs have had such a difficult time in finding and serving a population of community care residents at high risk of institutionalization, and it leads to the fifth and sixth reasons for the overwhelmingly negative cost-effectiveness results of community care.

High Screening Costs and High Unit Costs

Because prevalence of high-risk clients is so low, while demand for community care among patients not at high risk of institutionalization may be relatively high, it is essential that community care programs screen their applicants carefully and reassess their continued high-risk status frequently. Recent developments in the National Channeling Demonstration suggest that well-designed protocols and proper training can lead to effective telephone prescreening which reduces costs of screening and assessments. But these processes remain expensive even when done well—as frequently they are not. And state-of-the-art techniques in screening and assessment are not in widespread use, in part because the need for them is not understood by program operators.

Consequently, screening and assessment costs continue to be a major cost for many programs.

Likewise, community care programs have not been as inexpensive as most people hoped. Many operate with very small daily censuses, which produces high unit costs if the program is adequately staffed and equipped to serve either a large population or a population whose care needs demand a range of specialties and equipment. Many community care programs, especially geriatric day care programs, have opened their doors expecting a daily census of perhaps 30 patients, only to find that no more than half a dozen patients actually meet eligibility criteria and desire service. This drives up unit costs and produces pressure to allow excessive utilization by some patients who would be more cost-effectively served in nursing homes. Setting per capita expense limits of, for example, 75 percent of the cost of nursing home care will not work either, because most community care patients would never have used 75 percent of a year of nursing home care.

A partial solution to this problem is to operate community care programs as part of larger, multipurpose organizations such as social service agencies, hospitals, or nursing homes, so that overhead costs can be widely allocated and staff resources spread efficiently across multiple populations. This would take advantage of marginal cost pricing. Yet, unaware of potential census limitations, many community care programs operate as solo operations; indeed, regulations requiring separate administrative units have been employed in some cases to discourage development of community care by the nursing home industry.

LIMITED PATIENT BENEFITS

Finally, the seventh reason that community care is difficult to make cost-effective is its limited effectiveness in producing health status change. If it produced better outcomes than alternative modes of care, or if patients performed better with it than without it, its higher costs would be justified. It would be more costly but more effective. This has not generally happened, however. When pretest differences are controlled, statistical significance tests show that patients have typically fared no better in longevity, physical functioning, mental functioning, or social activities with community care than did those who did not get it [12-16, 21]. Two studies (one of them by the author) showed a possible longevity effect [14], but in each case, the finding lacked robustness and may have been due to differential drop-out rates

between treatment and control groups. One study actually showed a drop in physical functioning ability associated with community care [21]. In the latest and largest study, the National Channeling Demonstration's preliminary results show no effects on longevity, physical functioning, or mental functioning.

But one outcome *has* been affected—patient contentment. In some studies, including the National Channeling Demonstration [12], patients who received community care showed higher contentment or global life satisfaction levels than those who did not receive community care. In most cases, these results were clouded by the strong possibility of selection bias, but preliminary results of the National Channeling Demonstration show that the effect remains even when the treatment group is rigorously defined to include all who were assigned to treatment whether they actually participated or not. This result is encouraging and suggests that case-managed community care, delivered as it was in this large, state-of-the-art demonstration project, does have a beneficial effect upon patient contentment.

A related domain, caretaker contentment, and other domains of effect have not been adequately studied and might produce evidence of community care impacts if they were.

On the other hand, community care is expensive. It may not be the cheapest way to produce higher contentment levels in caretakers or patients. Direct cash grants to the caretaker or the patient might allow sufficient discretion so that higher contentment levels could be produced at lower cost. Had community care produced impacts upon the traditional epidemiologic outcome measures of mortality, morbidity, or even physical functioning, this challenge would not be significant.

DISCUSSION

This review of the problems of producing cost-effectiveness through community care presents a discouraging picture. Preliminary reports [22] indicate that the South Carolina community long-term care project has succeeded in targeting upon higher-risk groups than was accomplished in the past. This suggests that it is possible to improve targeting. Yet, even in that study, the small impact of community care on institutionalization rates was barely enough to recoup new outlays for community care for only two of the three groups of patients served.

Nor is it clear that it is in the best interests of patients or the program itself to target exclusively upon those at high risk of institutionalization. That there are so few such persons in the community

jeopardizes the financial viability of community care programs. Worse, it excludes from care the majority of elderly individuals, approximately three and a half million of whom suffer dependency in mobility, household activities, or home administration of health care services. These people need help even though their risk of institutionalization is small. Is it really appropriate to deny them care if they want it? Most community care providers would say "no."

The real problem for community care is that its promoters sold it as a cost-effective alternative to nursing home care [25–27]. An alternative rationale would be simply to acknowledge that community care is a new service directed to a new population. This population may have been at risk of institutionalization 10 years ago when community care started and when nursing home utilization controls were less effective and bed growth less constrained. But today, the population which uses community care is by and large at little risk of long-term institutionalization. The patients who use community care simply are not the desperately ill, socially and physiologically bankrupt individuals who are typical of the long-term nursing home patient.

On the other hand, they are people in need. No one who visits a well-targeted, health-oriented community care program would argue that it is populated by individuals who do not need care. Nor are their caretakers adequately supported. As a society, we do little or nothing to relieve the tremendous burden borne by caretakers of the elderly long-term care population.

Despite unwarranted and destructive, if well-motivated, claims to the contrary, it is not as a substitute for nursing home care that community care has functioned over the past decade since its take-off in this country. It has functioned primarily, and all but exclusively, as a support system for family caretakers. It is a palliative for patients not sick enough to actually enter nursing homes (even though many nominally qualify), but sick in too many ways to be helped effectively by the episodic and medically oriented health care system we have developed in this nation.

The challenge for community care supporters must be to find ways to finance this new mode of care for this new class of patients, not to continue to try fruitlessly to justify community care as something it is not—a substitute for nursing home care or a way to save money. Community care represents a timely and appropriate expansion of the functions of the health care system to meet the demands of a changing population mix.

Unfortunately, it comes at a time when public programs are being cut back rather than developed—when eligibility is being restricted

rather than expanded. One approach may be to seek redirection of existing expenditures on behalf of the aged so that scarce dollars are targeted first on those who have substantial needs for palliative care and cannot afford it themselves. This might suggest, for example, replacement of the existing aged-based eligibility criterion for public support with functionally defined eligibility criteria. Those who study the aged know that they are not a homogeneous group of helpless, poor, dependent people. Most are physically independent and many are financially well off enough to meet many of their own needs [28]. Community care supporters who believe in the worth of their programs might be well advised to lead the charge for redirection of public priorities toward a functional definition of old age. If functional dependency rather than old age determined eligibility for public support, the population now served by community care would be eligible for it without the need to resort to comparisons with the nursing home population. Scarce public dollars would also be effectively targeted to those most in need. While this solution is radical, the alternative is equally unattractive, requiring that community care continue to suffer from an inability to do what it has never done: serve a population for whom nursing home care is the appropriate option. This is the essence of the cost-effectiveness test and it is not likely to be passed.

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