
Care Management in Germany and the U.S.: An Expanded Laboratory

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Germany and the U.S. share a keen interest in exploring the potential of care management programs for the chronically ill. Despite obvious health system differences, in both countries there has been a proliferation of disease management models, initiated by a variety of actors, paid for in different ways, targeting different types of population groups, and encompassing a broad menu of interventions and services. Comparison of three case studies from the U.S. and four from Germany reveals greater differences among models within countries than between them.

INTRODUCTION

Like many industrialized nations, the U.S. and Germany are asking how best to address the growing burden of chronic disease in the context of rising health care costs. The combination of expensive new drugs and diagnostic technologies with extended life expectancy are pushing the systems to the limit. Both countries are faced with highly fragmented health systems with strongly entrenched interest groups that make radical structural reforms politically impossible.

In this context, Germany and the U.S. share a keen interest in disease management and care management more broadly.¹

¹Disease management is a system of coordinated health care for populations with conditions that require patient self-care. Care management is a broader term and encompasses similar programs that are not disease-specific.

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They have emerged as the two main leaders in this field despite obvious differences between the two health systems and health policy environments. In both countries, there has been a proliferation of care management models, initiated by a variety of actors, targeting different types of patients and encompassing a broad menu of interventions and services. In the case of Germany, there has been new national legislation to set forth a framework to promote such programs.

The Bertelsmann Foundation, The Commonwealth Fund, and AcademyHealth joined forces to examine the evolution and implementation of care management in the two countries by commissioning case studies and bringing together a small group of policymakers, researchers, and practitioners from the two countries to exchange experiences. Both countries sought to derive lessons for their own practices as a result of understanding the experiences of care management in a different setting. The underlying premise was that the inclusion of another country in the universe of natural experiments allows policymakers to draw on expanded opportunities for analysis. An important part of this benefit is that the comparative endeavor itself usually requires that domestic research and policy questions be slightly reframed. This, in turn, often recasts assumptions and stimulates alternative interpretations of the best way forward.

In this article, we discuss the history and policy rationale for the development of care management in the two countries,

provide a brief overview of the seven case studies that are included in this issue of *Health Care Financing Review*, and discuss some of the crosscutting themes that emerged from their comparison. In both the U.S. and Germany, a range of care management models exists, and the case studies were selected to represent that variety. In most cases, in particular the German case studies, there is still scant research data on the impact of these programs. The template for these case studies, therefore, was primarily descriptive.

Evolution of Disease Management

It is important to place the seven case studies in a historical context that takes account of some of the differences in the two health systems. In the U.S., the origin of disease management has been linked to managed care. While many in the U.S. believe that integrated delivery systems provide the best organizational structure for the delivery of coordinated care, most care is not delivered in that setting. There is, therefore, a search for ways to get the benefits of that model, without forcing physicians or patients into new organizational structures that reduce choice.

Initially, managed care organizations tried to create strong central management with limited networks and strong utilization review that they thought could achieve the same goals. However, patients and physicians rebelled at that approach in the mid-1990s, in what came to be known as the managed care backlash. Forced to abandon their heavyhanded management approach (utilizing primarily prior authorization and utilization review), they looked to other methods to reduce unnecessary services. Disease management was seen as one approach to create, through an external arrangement, a mechanism to link silos of care and better coordinate care,

provide patient education, and reduce unnecessary care through adherence to evidence-based guidelines. Some managed care organizations developed these programs internally, however, a for-profit industry emerged that could spread fixed costs (such as information systems) across larger populations and reduce the costs of the intervention. These disease management programs tended to be single-disease focused because they were developed around guidelines that tended to focus on single diseases.

In an effort to expand market share, the for-profit disease management programs began to sell their services to fee-for-service (FFS) medicine (private insurers as well as Medicaid Programs and Medicare) as a way to reduce the high costs associated with chronic care. Their claim was that through early identification of chronic disease, adherence to evidence-based medicine, and patient education, costly complications could be prevented. They also argued that early intervention would lead to fewer hospitalizations and emergency room visits.

At the same time, group and staff model health maintenance organizations (HMOs) recognized that even their ideal systems were not designed for effective chronic care. Wagner (2001) proposed a more comprehensive care coordination model that was centered around the patient and used strong information systems to assess and provide ongoing care. Because most patients have multiple chronic conditions, this model was better able to handle complex care. Also, because it was created from a group model HMO platform, it had the physician as a central player.

Today, disease management programs have begun to adopt some of the tenets of Wagner's care coordination model through greater coordination with the primary care physician and creation of clinical care

guidelines for patients with multiple chronic conditions. The U.S. case studies represent a range of institutional arrangements and programmatic focuses, but all reflect this trend.

In Germany, the first care management programs were created in the late 1990s when a national reform for the first time gave beneficiaries of the Statutory Health Insurance (SHI) the right to choose sickness funds (not-for-profit insurance companies) rather than being automatically assigned to a fund based on their profession or area of residence. Today there are approximately 280 SHI funds that cover about 90 percent of the population. They are funded through a 14-percent payroll taxes, equally shared by employers and employees. Individuals above a certain income level have the right to opt-out and choose private coverage.

The resulting competition among SHIs may have increased interest in improving efficiencies, and a number of funds began limited care management programs. A small for-profit disease management industry also emerged, with characteristics similar to the disease management organizations in the U.S. Hospitals and physician associations that represent doctors in ambulatory care continued to negotiate fees at a regional level and were resistant to change. As a result, early experiences with care management in Germany also functioned largely at the margin of physician services.

Similarities with the U.S. story end, however, when Germany enacted bold new national legislation that included disease management as a central component of a systemwide reform effort. The newly created disease management program approach was a response not only to variations in quality and the reluctance of physicians to using guidelines, but also to adverse selection among SHIs.

Following the reform that allowed patients to choose, rather than be assigned to an SHI, a simple risk adjustment scheme that equalized differences in contribution rates according to age and sex was intended to level the playing field for competition among funds. Nevertheless, differences in risk structure began to grow. The general regional funds lost 14.6 percent of their members, while company based funds increased members by 86 percent. Moreover, the total number of funds fell from 1,221 in 1993 to 319 in 2003, in part as a result of the movement of beneficiaries (Busse, 2004). In this context, disease management was framed as a way to create a funding stream for SHIs with a disproportionate burden of chronic illnesses.

The program has been slow in implementation, in part due to the resistance of the physicians. However, government officials report that there are now 3,000 local programs and over one million patients voluntarily enrolled. They plan to expand the list of reimbursable disease management programs as more clinical guidelines are developed. National standards have been issued for diabetes type II, breast cancer, and coronary heart disease, and are now under development for diabetes type I, asthma, and chronic obstructive pulmonary disease. The new disease management program also mandates periodic evaluations, which will provide interesting data to compare over time with the Medicare evaluations of demonstration and pilot studies.

The evolutions of care management experiences in Germany and the U.S. reveal some differences in policy goals. However, there are clearly notable similarities. As we explain, at least five policy rationales seemed to have driven development, only one of which is exclusive to Germany: adverse selection. The other four: low efficiency, poor care coordination,

over and misuse, and patient non-adherence to treatments, are indeed shared concerns and stated reasons for promoting disease management. The five policy rationales are:

Efficiency—One of the main rationales for disease management in the U.S., as argued previously, has been rising costs due, in part, to health care utilization patterns that reflect both duplicative services and gaps in services that result from difficulties in coordinating care across providers. A number of policymakers have called for the introduction of disease management programs in Medicare as a way to rationalize utilization and slow the growth in costs for persons with chronic conditions. While public discussion of cost savings is not as politically palatable in Germany as in the U.S, there is no doubt that the development of disease management programs within some of the SHIs was also an attempt to rationalize service use and increase efficiency. Techniker Krankenkasse (TK) Continuous Case Management, one of the case studies included in this issue which predates the official disease management program, is a case in point. In both countries, early detection and treatment of chronic diseases was identified as a way to reduce or eliminate expensive complications and comorbidities that often occur and to reduce the associated hospital and emergency department costs.

Financial Incentives— In Germany, the uneven distribution of risk among SHIs was a primary reason for legislation mandating a national program of disease management. In altering their benefits, some sickness funds were able to actively recruit the young and healthy, leaving large segments of the older population with chronic diseases concentrated in a few traditional funds. In this context, care management

was not only a mechanism for higher levels of public funding of high risk patients, it was also viewed as a way to level playing field so that competition would be more effective. In the U.S., disease management has not been directly linked to improving competition or reducing biased selection in the U.S. The debate over this issue among managed care plans and between managed care and FFS in Medicare has resulted in the implementation of a complicated risk-adjusted payment formula that uses diagnoses to adjust payment. However, the idea of channeling additional funds to health plans for disease management programs as applied in Germany is certainly consistent with ongoing experiments in the U.S. that explore the effects of paying more for higher quality care.

Lack of Coordination of Care— In both countries, there is an assumption that coordination is not naturally occurring and that specific incentives are therefore needed.

In Germany, this has been related to concerns that corporate negotiations used to determine pricing between providers and SHIs have institutionalized silos of care. The system has historically used a FFS payment scheme (although this has begun to change) with no gatekeeper function to rationalize referrals and require sharing of information across silos. Similarly, in the U.S., the majority of people receive their care in FFS settings, and many receive care from a number of different uncoordinated providers. Studies abound that report lack of coordination, with commonplace practices such as the same tests being ordered by multiple doctors, and physicians prescribing medications without knowledge of other physicians' prescriptions. Disease management, and more broadly, care management programs are viewed as a way to create the infrastructure and incentives to facilitate care coordination,

either by paying physicians to coordinate care or by creating new professional roles to fill those functions.

Overuse, Underuse, and Misuse—In both countries, national reports on quality were commissioned that provided the impetus to move towards evidence-based medicine. In the U.S., the Institute of Medicine (2001) identified a number of quality problems inherent in the current health care system, including physician difficulties in quickly accessing evidence-based guidelines, little or no patient counseling, and the overuse and underuse of services due to the highly fragmented nature of the system. The report emphasized that the current complexities in the process of handing off patients slows down the care and increases opportunities for medical errors, in particular the loss of information. In Germany in 2001, an Advisory Council to the Ministry of Health documented massive overuse, underuse, and misuse of care (Federal Ministry of Health, 2001). Similarly, this report galvanized public debate and firmly focused the public's attention on quality.

The development and use of clinical guidelines for care has subsequently been seen in both countries as a way to reduce variation and insure that all patients get clinically appropriate care, although their uptake has been slow in both places. A recent study shows that guidelines do not always get translated into appropriate care for patients (McGlynn et al., 2003). In Germany as well, implementation has been complicated by the traditional resistance of physician associations that see guidelines as an affront to their professional autonomy (Busse, 2004). For the German Government, the 2001 disease management legislation offered an opportunity to move evidence-based medicine forward.

Patient Adherence—There is a growing consensus in both countries that patients are more likely to change behaviors if they

are educated, empowered, and participate in defining the course of treatment. Part of the reason physicians have been ineffective in this regard relates to decreased time spent with individual patients, due to payment systems in both countries that reward procedures at a significantly higher rate than patient counseling. Disease management not only alters payment flows, but also emphasizes the use of care managers that work directly with patients to promote empowerment.

Case Studies

Given the similarities in the problems that have heightened both countries' interest in disease management, perhaps it is not surprising that the models of implementation also cut across the two countries. Variations appear to have more to do with institutional arrangements within each country than with overall health system differences.

The case studies selected for this project purposefully represent a range of experiences within each country. In the case of the U.S., the three experiences selected vary in the degree of integration with the delivery system as follows:

- Kaiser Permanente—A fully integrated not-for-profit system with multiple disease-based programs, as well as new programs that enhance physicians' decision support and coordination with other health professionals in all situations.
- Visiting Nurse Service (VNS)-Choice—A not-for-profit managed long-term care (LTC) program for the frail and elderly that provides both care coordination and some direct services, such as day care and transportation. It is patient- rather than disease-focused.
- American Healthways—A freestanding for-profit disease management organization that is contracted by insurance

companies. It has evolved from single disease programs to an ability to personalize programs to account for comorbidities.

The German case studies also represent a continuum of types of programs, initiated and managed by a range of different actors. Of the four German case studies included, three predate the official disease management program, with only one, AOK, accredited as part of the formal disease management program approach. The four case studies are:

- TK—Continuous Case Management. A SHI case management plan for high-risk patients with multiple health problems who are in need of post-hospitalization rehabilitation. Case managers are employed by the insurance fund directly.
- AOK Breast Cancer—A SHI disease management program for breast cancer patients. It is funded through the Government's disease management program, and, in turn, employs nurse counselors and reimburses participating physicians and patients.
- ArztPartner Almeda—A freestanding for-profit disease management company that is organized around single disease programs. It uses some telemedicine to track health indicators and focuses on patient education.
- PRO DEM—A local not-for-profit physician-and community-initiated disease management organization for dementia patients and their caregivers within the family. It functions as a community organization with social support services and clinical guidelines for participating physicians. Funding is derived from membership dues and donations.

While the seven case studies focus on different populations and have been implemented in very different environments and care systems, a number of common themes

arise. In fact, we view these case studies as interesting examples of implementing disease management, and find the differences within disease management programs in each country far greater than differences in disease management across countries. We will highlight some of the different ways each of the programs has been designed and implemented, and describe the unique aspects of each of the programs as well as their similarities.

Method of Financing and Internal Incentives.

All but two of the programs (Kaiser Permanente and TK) brought in additional payment from outside the provider organization for the disease management functions. Kaiser Permanente finances its disease management programs through internal budget allocations. Because it embodies both insurer and provider roles, it can make tradeoffs internally regarding direct patient care versus supportive or management services. TK also made internal decisions regarding budgetary allocations to justify employing case managers. The two for-profit disease management programs, ArztPartner Almeda and American Healthways, receive a per patient per month fee from the SHI or insurer that covers the care coordination and patient and provider education functions. AOK Breast Cancer received payment from the Government disease management program. PRO DEM operates on a mixed payment model, receiving part of the budget from membership fees and, until recently, the remainder from private contributions. VNS CHOICE is a managed LTC program for Medicaid eligible residents. Capitated per member per month payments are received for care management and covered services from the Medicaid Program.

Three of the German programs, AOK, PRO DEM, and ArztPartner Almeda, provide, or provided at one time, direct financial incentives to physicians to participate in the program to cover administrative costs associated with the program. Other programs try to work with the physicians and rely on demonstrating their usefulness to physicians by relieving physicians of some tasks—like patient education—that were costly and time consuming.

Target Population

The disease management programs studied vary both in the diagnoses covered and in the severity of the condition. Diagnoses covered by the programs range from traditional disease management conditions such as congestive heart failure, diabetes, to LTC, and breast cancer. Several programs focus on people at different stages of disease. This means that for the sickest persons who are at high risk of complications and unnecessary hospitalizations, intensive care management is provided, often referred to as case management. Other persons who have occasional complications but have the potential to manage their disease better are offered ongoing care management. The healthiest group of persons may be asymptomatic with subclinical disease, and generally only receive education. VNS CHOICE and PRO DEM provide services for very frail individuals who may have multiple chronic conditions, and therefore offer intensive levels of management. TK also uses case management for its post-hospital followups. AOK Breast Cancer provides care management services for females with a diagnosis of breast cancer after first-line therapy only. Kaiser Permanente, ArztPartner Almeda, and American Healthways have specialized algorithms for patients at different levels of severity, with the last two

receiving different reimbursement amounts for different levels of disease management.

Patient Selection, Recruitment

The disease management programs in this set of studies identify and recruit patients via different mechanisms. Many programs, including ArztPartner Almeda, American Healthways, Kaiser Permanente, AOK Breast Cancer, and TK Continuous Case Management identify eligible patients through specific diagnoses identified on claims records or via hospital discharge records. VNS CHOICE and PRO DEM participants are identified through referral from community-based organizations or other health care providers.

Programs utilize either active or passive enrollment methods. Under passive enrollment, patients who are identified via administrative data are presumed to be participating unless they specifically opt out. Of the programs studied, Kaiser Permanente and TK Continuous Case Management offer passive enrollment. TK Continuous Case Management enrollees have financial incentive to participate; they risk losing sick pay if they do not participate. American Healthways offers both passive and active enrollment, depending on the payer. The other programs utilize active enrollment, with participants having to sign up to receive services. AOK uses reimbursement of copays as an incentive to enroll.

Disease Management Program Services

The services provided by the disease management program and linkages with community providers vary considerably. Kaiser Permanente is part of a care system and so their activities are oriented towards

enhancing physicians' roles. They also have care coordinators who provide education and work with existing community providers to strengthen care networks. VNS CHOICE and PRO DEM provide care management and some direct services. They also link to community providers to ensure comprehensiveness. The remaining cases, ArztPartner Alameda, AOK, TK, and American Healthways provide patient and physician education, remote physiological monitoring, care coordination, and telephonic monitoring services only.

Relationship with Physicians

Although all disease management programs strive for close coordination with physicians, some programs are more successful than others. The disease management programs that are incorporated into systems of care, such as Kaiser Permanente, are most successful at maintaining close relationships with physicians. All other programs, however, rely on nurse care coordinators to communicate with physicians and do detailing, although those that pay physicians (AOK, ArztPartner Alameda, and PRO DEM) may have some advantages.

Information Systems and Data

Many of the disease management programs rely on complex algorithms run on clinical or claims data to feed into identification and care management. Kaiser Permanente, American Healthways, and ArztPartner Alameda are particular examples of programs with a strong reliance on information systems and data. In general, disease management programs with more diverse populations or that need to allocate resources among different levels of severity are more likely to utilize complex information systems and data to accomplish

those tasks. Programs with more homogeneous populations can rely on case managers to make clinical judgments.

CONCLUSIONS

There are at least two benefits to the exercise of comparing case studies from different countries, in this instance Germany and the U.S. The first is that stories about how others do things can stimulate new ideas about what might work, or at least be tried here. This is different from what is probably a false expectation that there will be lessons that can be directly extrapolated from Germany to the U.S. or vice versa.

The following are a few of the new ideas that were stimulated by the German case studies for us:

- The selection of non-traditional diseases for case management, like the choice of breast cancer, may help to elevate the importance of decisionmaking about care preferences and, in so doing, help to drive changes in the configuration of the delivery system. The hope would be that this will lead to delivery systems that are more responsive to patient preferences.
- The framework for financing and for evaluation may be appropriately broadened to include social factors that are health-care related. PRO DEM, for example, sought financing from community sources. Although that model was not ultimately successful, it might serve as a springboard for other creative attempts to secure adequate financing.
- There is a broad pool of potential care managers beyond the health care system. Non-professional lay persons can be trained to become care managers.

The second benefit of this kind of comparison derives from looking within the two countries and finding patterns that stretch across the Atlantic. While most people

think of international comparative research as contrasting countries as a whole, variations within countries may allow more patterns and questions to emerge. In this exercise, we found that variation between models within each country were, in fact, greater than the differences between countries, even given the different financing and delivery systems present in each country.

There were remarkable similarities in the perceived problems and in the policy goals of disease management. These shared goals focused on: (1) establishing a financing mechanism to incentive care coordination, prevention, and patient education, (2) creating a focal point within the health care system to coordinate care across provider silos, and (3) altering the physician-patient relationship by empowering patients to engage more fully in their care, and educating physicians to adhere to evidence-based guidelines and consider the patient and other care providers as partners in the health care system. These shared goals span financial, organizational, and clinical levels.

Given the enormous number of unmet needs for health care dollars and the opportunity costs of financing disease management, careful evaluation of goals and outcomes is needed in both countries to insure that resources are spent efficiently and effectively. While the differences in health systems between the two countries may necessitate some variation in evaluation methodologies, programmatic challenges remain common to both. They must insure that the intervention is efficient, that careful screening and targeting occur so that only people who are likely to benefit receive the service, and that the time horizons for measuring outcomes are appropriate.

This creates a potential for evaluative research to cut across the two countries. By extending our focus to another country such

as Germany, we are in effect expanding the research possibilities. Examples of shared questions that would be specific to certain types of models include the following:

- What patient enrollment strategies among the stand-alone models have been most effective and why?
- How much consensus needs to exist in the evidence base for treatment in order for disease management to be successful?
- What has been the physician response to the use of incentives to participate in care coordination programs in FFS environments?
- What are the advantages and disadvantages of narrowly focusing the patient population versus creating programs aimed at a broader set of patients?

Both points, that cross national comparisons spark new ideas, and that such comparisons may be most interesting when similarities and differences within countries are included, illustrate the potential benefits of international exchange. As Freeman (2002) writes:

“The alien elements of international case studies might be compared to going on holiday; they offer us an escape from habit and the mindset that unconsciously shapes what we think and do. Sometimes they can even give us a new sense of possibility, of what life might be like, or of how things might be done differently.”

ACKNOWLEDGMENTS

The authors would like to thank Robin Osborn and Mary Jane Koren for their contributions to this article.

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