Maximizing Efficiency Through Poly-Chronic Care Systems

by Pierce Story

We are all aware of the “crisis” in healthcare. Medicare and Medicaid are already headed for broke even before any legislated expansion of coverage. Dwindling resource-to-patient ratios (for example, primary care physicians (PCP) and experienced nurses) threaten care access for an aging population that will increasingly demand more services of higher quality with little or no out-of-pocket expense.

Meanwhile, relative reductions in human resource supplies means upward pressures on clinical salaries and benefits while capacity and budget constraints concurrently yield opposing pressures to reduce cost and utilization, control excess care provision and maximize efficiencies. Asking more from relatively fewer resources is therefore a fool’s errand, especially if you intend to pay them less rather than more.

Thus, to concurrently expand capacity and reduce cost while improving quality and access, we need an entirely new care system that accounts for these constraints and enables greater capacity without asking “more for less.” Any legitimate solution must therefore simultaneously impact cost, system capacity, access, quality, and resource and patient satisfaction.

Fortunately, we needn’t change the entire system to achieve these results. Roughly 80% of healthcare cost and resource consumption is tied up in the care of less than 20% of the patient population. These are the “poly-chronics”: patients with multiple chronic diseases or a single chronic disease with multiple co-morbidities, often in the twilight of their lives, and for whom the current care system has largely failed. Focusing on these “outliers” with the highest per-patient cost and resource demand will yield the largest financial and capacity impacts for the entire system.

Therefore, the most effective solution to our problems is not in altering the system for everyone. Rather, we should develop new “poly-chronic care systems” that account for the
constraints in the system’s capacity and financial resources, and the specific needs of this small population. The Poly-Chronic Care Network (PCCN) is one such solution.

**PCCNs: the basics**

PCCNs are care sub-systems that align focused clinicians with broad arrays of precisely coordinated and interconnected communal resources in order to augment existing care capacity, support physicians’ care plans and efficiently provide the right care and assistance at the right time at a lower cost per patient year.

In a PCCN, care tasks are efficiently allocated throughout an orchestrated, connected group of readily-available community resources such as churches, community groups, families, federally qualified health centers (FQHC), YMCAs, friends, pharmacies, students and residents, retired healthcare workers and other volunteers, while clinical governance, decisioning, and oversight are provided by dedicated physicians and their staff.

PCCNs allow PCPs and specialists to focus on what they do best—outcomes management—while improving patient contact, compliance, monitoring and disease management via fully-integrated community resources. While common in many communities, these resources are not effectively coordinated into the care system and thus remain disjointed, detached and siloed. In contrast, this “right-resource-right-time” PCCN community care model expands total clinical capacity without further taxing scarce clinical resources by collaboratively allocating non-clinical tasks to integrated non-clinical resources.

For each patient in the PCCN, a “Care Circle” is created from familiar, local communal resources and the patient’s caregivers. The Care Circle collaborates and communicates to enact the Care Strategies designed by the patient’s physician. Task allocations, patient updates and physician’s instructions are communicated “upstream” and “downstream” via a social-clinical networking (SCN) platform, which can be likened to a private Facebook for chronic disease management.

Physicians are thereby kept informed as communal resources interact with patients in their homes or care facilities, and can more readily preempt clinical deteriorations that might
otherwise result in emergency department (ED) visits, readmissions or other, more drastic measures. Patients are held accountable for required activities through local resources that can provide more constant and regular monitoring and encouragement. Patients can become more engaged in their own care through their Care Circle advocates and connectivity that ensures proper education and compliance to instructions. Traditional care management capacity is thus augmented and transformed from contact via telephones to direct interaction and hands-on assistance.

To achieve these goals, PCCNs use elegantly simple technologies for task and resource optimization, patient compliance and connectivity to go beyond traditional “care managers” and “patient navigators" to fully integrate broader resource pools into care management and assistance. While implementation environments and budgets will vary, a list of potentially useful technologies includes:

- SCN for patient and familial support, and social-networking-style interaction. The SCN is the “workhorse” of the PCCN model and the only must-have technology.
- Dynamic process and systems simulation for resource, system and task optimization.
- Home and virtual monitoring for expanded clinical capacity.
- Chronic disease management and clinical decision support systems.

These technologies, however combined, create the infrastructure required to achieve the necessary resource utilization optimization, clinical information exchange, compliance and task monitoring, and patient engagement. Physicians can thereby care for more patients at a lower cost per patient year, while ensuring more patient contact, better compliance and optimal outcomes.

**A holistic solution**

As a holistic solution, PCCNs offer benefits to many areas of care delivery and management. Indeed, PCCNs can simultaneously address unnecessary readmissions, ED overcrowding...
and excessive intensive care unit (ICU) lengths of stay for hospitals while smoothing care transitions and mitigating discharge issues for case management. Demand for constrained clinical space will be reduced as EDs and ICUs will no longer be filled with patients without external communal support structures. Transitions from hospital to home are made smoother by on-site, coordinated and patient-focused resources. Furthermore, PCCNs expand the total clinical capacity of the system without increasing the clinician-patient ratios or risking quality or clinical outcomes.

Importantly, insurance risks for the entire population will be reduced as poly-chronics are concentrated and better managed in more appropriate settings and thus better monitored for unexpected costs. As part of the holistic PCCN solution, end-of-life, palliative and hospice care will become integrated community-supported solutions rather than unwelcome alternatives. And communities will be strengthened and made healthier through the shared experience of patient, disease and health-system awareness.

Lastly, by enabling a lower cost-per-patient year, PCCNs offer a means to new reimbursement models, such as capitation, that will help it attain long-term system sustainability and the desired cost impact, even for those patients unable to self-manage or use virtual monitoring systems. Of course, because the fee-for-service model tends to promote the current business model, new capitated and bundled payment models need to arise to support PCCN-like concepts.

Radical new ideas are required to salvage the system. By creating a new care system for the highest-cost, highest-using patients in the population, the PCCN can simultaneously attain all our key goals without disrupting the entire care system.

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