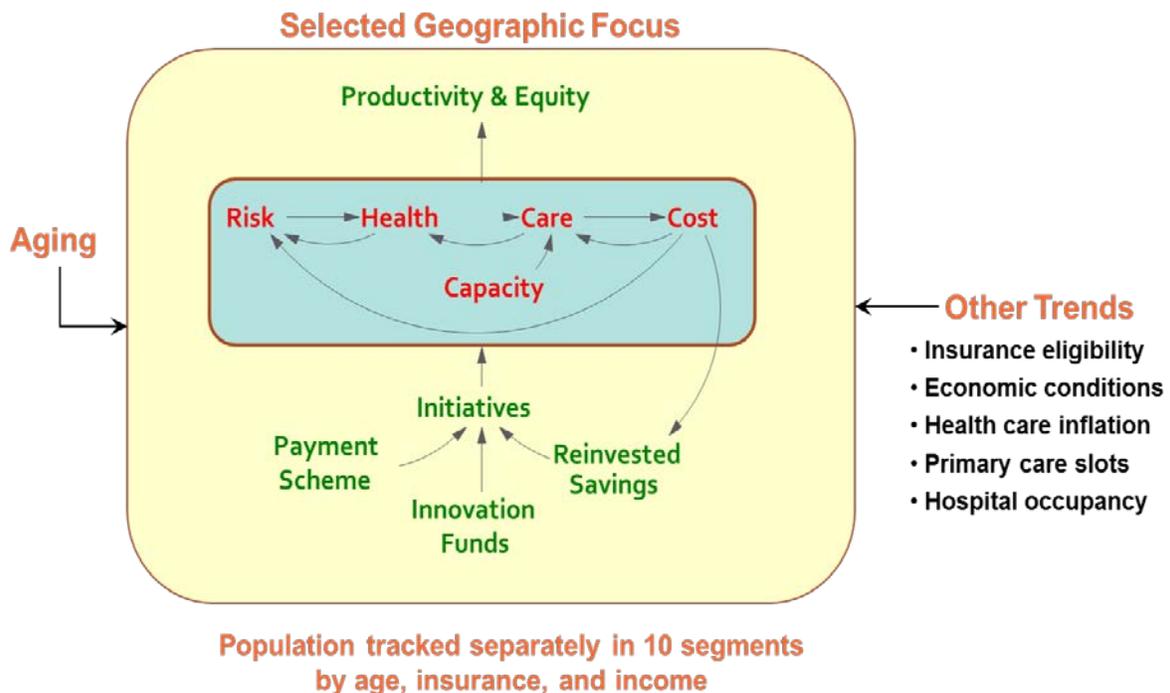


ReThink Health System Dynamics Model

Behavioral Logic in the Model*

The ReThink Health Model is a realistic but simplified portrait of a local health system. It rests upon a variety of explicit and testable hypotheses, anchored in evidence and experience, about how a local health system is structured and how it tends to change over time. We strive to capture some of the most important physical processes (i.e., demographic, epidemiological, economic, operational, etc.) as well as key behavioral decisions of particular actors within the system. The general boundary of the model and its major sectors are shown in this overview diagram. A more detailed map of causal pathways is far below and additional diagrams for particular sectors are also available.



In the model, as in real life, people may change their decisions as conditions change around them. Planners may use this tool to explore for themselves the extent to which different circumstances might yield different results over time. Such insights become immediately apparent when simulating scenarios. Below is a summary of the underlying behavioral logic that makes the ReThink Health Model closely resemble real-world patterns of cause and effect.

* This document refers to version 2c of the ReThink Health Dynamics model. Certain features may differ from the version that is currently available online at: <http://www.ReThinkHealth.org/Dynamics>.

Population Health & Well-being

When do people engage in risky behaviors (e.g., smoking, physical inactivity, binge drinking, etc.)?

Decisions to engage in risky behaviors are affected by the prevalence of neighborhood crime, one's socioeconomic status, and by access to preventive care, which reflects insurance status and the local availability of primary care providers. People with untreated mental illness are also more likely to engage in risky behaviors. An initiative to enable healthier behaviors can help to prevent the development of unhealthy habits (for instance, by discouraging smoking initiation) and to reduce prior risks (for instance, by encouraging smoking cessation).

What can be done to assure socioeconomic advantage?

People are more likely to fall into poverty if they have disabling conditions due to severe physical illness or untreated mental illness. The Pathways to Advantage initiatives can help people move into the advantaged group and simultaneously prevent those who are advantaged from slipping into poverty. Of course, higher rates of chronic illness and patterns of risky behavior will persist for some time among those who have struggled under poverty (e.g., due to biological weathering and behavioral coping) even after an effective Pathways intervention improves one's socioeconomic position. This carryover effect may somewhat increase the health care costs faced by employers and thus affect their decisions on workplace-based insurance coverage.

Health Care Quality & Cost

When do health care providers deliver high-quality preventive and chronic care?

Under ordinary circumstances, health care professionals sometimes fail to deliver preventive and chronic care in accordance with all recommended guidelines. An initiative to improve care for physical illness can support health professionals by helping them to adhere more fully to standard guidelines for high quality care. Such an initiative might be most effective when combined with the financial incentives of a per-capita (rather than fee-for-service) payment scheme.

When do people engage in self-care and routine doctor visits as recommended?

Care-seeking and self-care are affected by socioeconomic status and by access to preventive and chronic care, which reflects insurance status and the local availability of primary care providers. Also, people with uncontrolled mental illness seek care less consistently and have greater difficulty with self-care. An initiative to support patient adherence can improve care-seeking and self-care. Such an initiative might be most effective when combined with the financial incentives of a per-capita payment scheme.

Where do people go for care for non-urgent episodes?

Most people tend to go to a primary care provider or to a specialist for non-urgent care, while a small fraction may routinely go to the ER. This choice is affected by one's socioeconomic status and insurance status. Local PCP insufficiency (often evident in appointment delays) also causes more people to go to



the ER for non-urgent episodes than would otherwise be the case. Establishing PCP-based medical homes can shift care toward PCPs (if there is sufficient capacity) and away from specialists and ERs.

How extensive is the care that people get for non-urgent episodes?

Specialists and ER doctors are more likely than PCPs are to refer patients for additional and more costly visits, tests, procedures, and elective inpatient stays. An initiative to coordinate care could help to reduce unnecessary costs today and also limit the future application of expensive health care technologies until they are demonstrated to be cost-effective. Malpractice tort reform and PCP medical home initiatives could also help to stem some of this excess utilization. A “supply push” response from specialists (see Financial Considerations below), however, may undo some of the good that care coordination, tort reform, and PCP medical homes could ideally do.

What can be done to reduce hospital readmissions?

Improvements in self-care (see above) can help to reduce the readmission rate, as can an initiative to improve hospital discharge planning. Such an initiative might be most effective when combined with the financial incentives of a per-capita payment scheme.

Financial Considerations

When might employers discontinue offering workplace-based insurance?

As health care costs rise, more employers may decide to eliminate workplace-based coverage.

How do specialists respond if their incomes drop?

If certain actions (care coordination, tort reform, PCP medical homes, or others) reduce the incomes of specialists, some may decide to practice in another community, while others may seek to restore their incomes by delivering more extensive care. If specialists were paid on a per-capita rather than a per-volume basis, this “supply push” response would be eliminated. Alternatively, if cost savings are captured by the community, then sharing a portion of captured cost savings with specialists may boost their incomes enough to somewhat blunt the supply push response.

How do hospitals respond if their profitability drops?

If certain actions (care coordination, etc.) reduce hospital profitability, hospitals may respond by reducing the number of beds available in an effort to cut costs. Another way hospitals may cut costs and boost profitability is by improving hospital efficiency and reducing hospital-acquired infections— both of which can reduce average length of stay.

How would health care providers respond to a shift from conventional volume-based (fee-for-service) payment to a per-capita payment scheme (e.g., “contingent global payment”)?

The fee-for-service payment system leads many health care professionals to resist initiatives that threaten or seem to threaten their volume of visits, and allows for the “supply push” response described above. Some initiatives, like coordination of care, clearly would reduce the volume of visits for specialists and hospitals. Other initiatives, like improving compliance with guidelines for preventive and





chronic care, might require longer visits or more administrative tasks for providers, and thereby threaten to reduce the potential daily throughput of patients. A shift to per-capita payment would reduce the resistance to such initiatives (especially if the amount of payment is made contingent upon provider cooperation) and would eliminate the supply push response. Indeed, even a partial shift—where only some fraction (e.g., at least 30%) of the population is covered by per-capita plans—would be sufficient to change the behavior of the majority of providers.

What can be done to capture and reinvest health care cost savings?

Local leaders may establish legal structures, akin to Accountable Care Organizations, and negotiate agreements with commercial and government insurers whereby a specific portion of any health care cost savings would be returned to the community for reinvestment. The total amount of health care costs savings would be defined relative to benchmarks that are set for each insured population segment: i.e., Commercial (youth, working age adults), Medicaid (youth, working age adults), Medicare only, and Medicare/Medicaid dual insured. Any savings returned to the community could be used in one of two ways: (1) some fraction could be shared with providers to acknowledge their assistance in reducing costs and to supplement their income somewhat; and (2) the remainder could support the ongoing implementation costs of selected initiatives over time.



