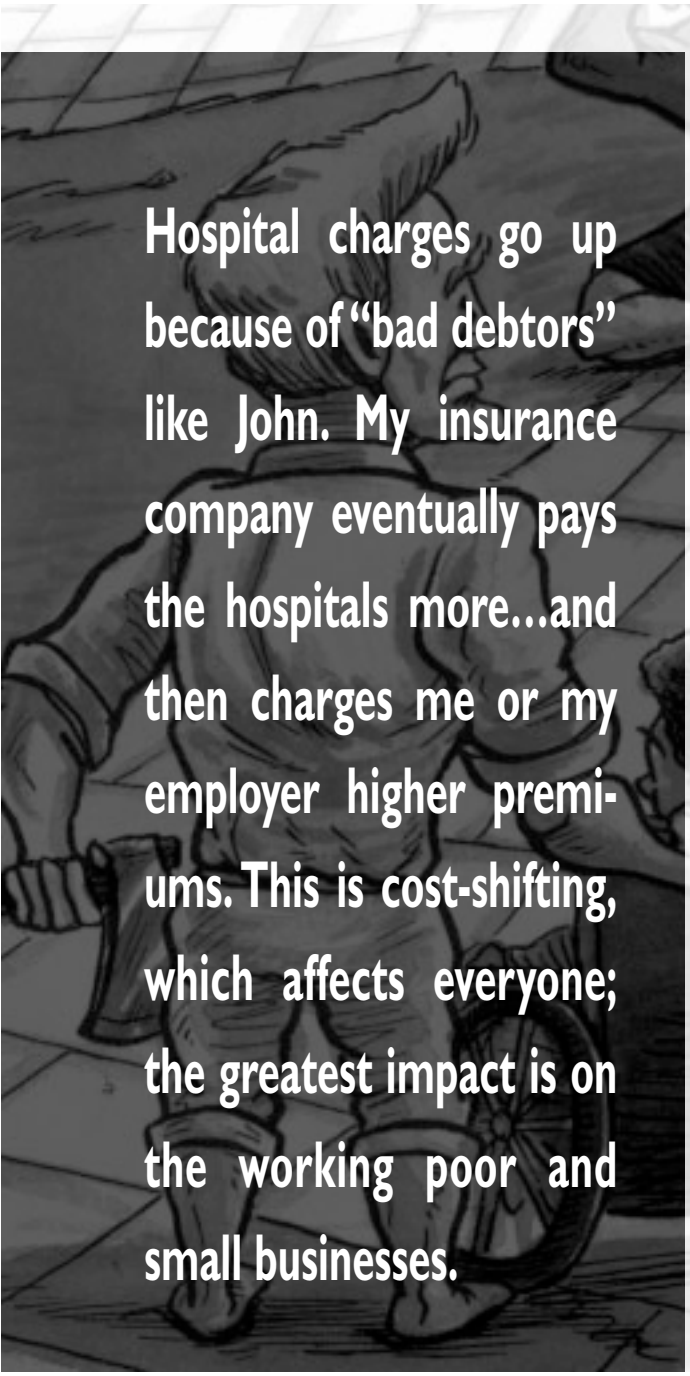
Thinking Ecologically About Health Care

By Tina Castañares, MD



Hospital charges go up because of "bad debtors" like John. My insurance company eventually pays the hospitals more...and then charges me or my employer higher premiums. This is cost-shifting, which affects everyone; the greatest impact is on the working poor and small businesses.

The science of ecology offers a simple but profound approach to understanding relationships within natural systems: Everything affects everything else…and we're all in this together.

In nature a frog depends upon a tasty gnat for sustenance, and a bird upon that frog and its young. A fruit tree needs the bird to drop its seeds. A sloth uses the tree for shelter, and a forest relies on the sloth to control leaf- and bark-eating bugs. A pond evolves in the watershed created by the forest. And another gnat lays its eggs upon that pond. We have learned that introducing new challenges into such intricate systems disrupts and destabilizes them, and that even the best planning cannot prevent all undesired effects. Finally, we know that no single ecosystem exists independently of others.

The lessons of ecology must be consciously applied to reforming our system of healthcare. Unlike the idyllic corner of the rain forest described above, Oregon's healthcare ecosystem is out of balance. But its elements are nonetheless interconnected. We need a sophisticated understanding, vigilance, and political will to correct illogical or self-defeating elements already present in the system. For example: The emissions of a hospital's incineration system prove toxic to nearby residents. Low-income families become obese on readily available commercial fast foods, now cheaper than fixing healthier versions of such food at home. Major corporations promote soda pop in schools, trading tax-deductible "gifts" such as computers and baseball fields for lucrative, exclusive contracts;

The Botox™ Party: A Monkey Wrench in the Ecosystem

Let's look at Botox™, the botulism toxin injection being given lately in dinner party settings and medical offices to temporarily erase facial wrinkles. Why should we concern ourselves, one might ask, with Botox™? Don't the customers pay for it out of pocket (at an average cost of $500 per injection)?

What does this have to do with public policy?

The principles of ecology teach us to look under the surface of such questions. Consider the physicians administering these lucrative cosmetic treatments and their medical training. Despite the personal costs of that MD degree, taxpayers subsidize each doctor's education. The federal government spends about $10 billion annually to pay medical schools and teaching hospitals for medical education and training. State and local governments provide subsidies in the range of $2-3 billion per year. Now, when public policy determined that tax dollars would fund medical education, did anyone have Botox™ parties in mind? Even the American Academy of Dermatology went on record this year opposing them.

Botox™ research and development, patenting, and marketing may well have benefited from a generous U.S. regulatory climate for pharmaceuticals. Also, when a Botox™ injection results in injury, a lawsuit may follow; if damages are awarded, the malpractice insurance company might raise its rates (at least for this specialty), and these doctors' charges could rise across the board in response.

Thus a stranger who decides to pay "independently" for a temporary cosmetic treatment may benefit from my taxes and affect people who cannot afford even basic medical care by making other healthcare services more expensive in the future.

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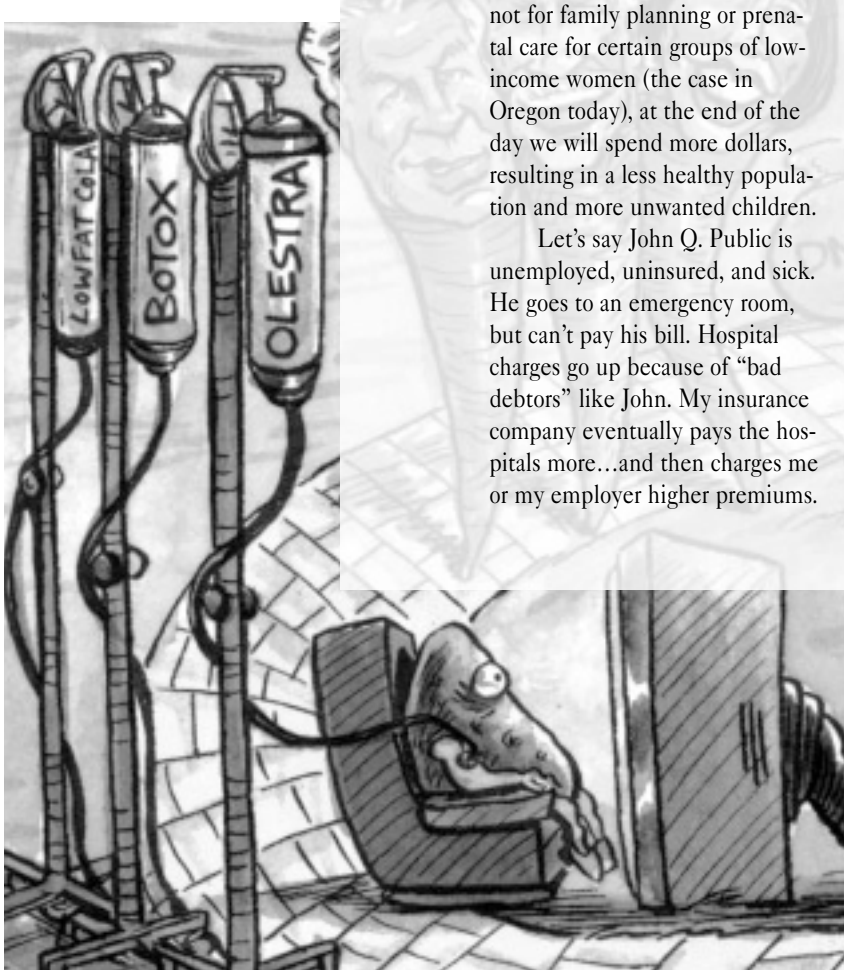
kids' teeth, bones, and waistlines suffer as a result. Public insurance programs fail to cover prenatal or primary care for poor immigrants, then are strained by payments for long-term, costly care provided to the premature babies or the disabled children some of them become. Uninsured adults develop advanced stages of diseases such as diabetes or tuberculosis, forcing hospitals and doctors to give away "charity care" (and shift the costs to others). Federal patent laws confer undue protections on drug companies deriving huge profit margins—while another branch of government fruitlessly debates how to help low-income seniors to afford prescriptions.

Even our efforts to fix what's broken could take a lesson from ecology. We're fond of "bringing all the stakeholders to the table." The truth is that we're all stakeholders, in virtually every decision. The health of the whole system, and every corner of it, directly affects the health of each of us—patients, providers, insurers, suppliers, policyholders, policymakers, taxpayers, voters. *(Please see sidebar, The Botox™ Party.)* If we save public money by paying less for prescription medicines, we must somehow still protect local drugstores; otherwise we risk leaving medication supply to national chains and Internet-based providers—whose consolidated power could enable them to name their own price. If we pay for obstetrical deliveries but not for family planning or prenatal care for certain groups of low-income women (the case in Oregon today), at the end of the day we will spend more dollars, resulting in a less healthy population and more unwanted children.

Let's say John Q. Public is unemployed, uninsured, and sick. He goes to an emergency room, but can't pay his bill. Hospital charges go up because of "bad debtors" like John. My insurance company eventually pays the hospitals more…and then charges me or my employer higher premiums.



This is cost-shifting, which affects everyone; the greatest impact is on the working poor and small businesses. Maybe eventually my employer will just stop paying for my health insurance, or strip down what I'm offered because of escalating costs.

Or perhaps in the past Jane Doe opposed more spending on the Oregon Health Plan since the increase might also raise her taxes. Suddenly, because of an economic downturn, Ms. Doe loses her job. Jane now looks like John. And the Oregon Health Plan doesn't have enough funding to help her out.

America steadfastly resists articulating clear values and goals, refusing to come to terms with what the 21st century demands to protect the public's health. The health insurance industry, the pharmaceuticals industry

Ramiro: A Case Study

(Ramiro is a "composite" patient, i.e., each medical detail of this fictional patient's story is drawn from real patients whom I've treated)

Ramiro is a 24-year-old immigrant from El Salvador. He has lawful permanent residency status since legally entering the U.S. in 2001. He had a full-time job then, at a hotel restaurant on the Oregon coast, as well as a second, part-time, seasonal job at a Christmas tree farm. The hotel went bankrupt, and Ramiro lost his major source of income. At the same time, he developed night sweats and a troubling cough.

He had no money to go to a private doctor (there aren't any "safety net" clinics where he lives), and his English was still quite limited. Because of the federal Welfare Reform Act of 1996, he could not qualify for Medicaid (or the Oregon Health Plan) until 2006, five years after his legal entry to the U.S., despite meeting income criteria, paying taxes, working, being sick, and needing healthcare. Ramiro didn't think about going to the county health department, although it could have offered excellent assistance with respect to this particular illness, because he was unaware that it existed or that he had tuberculosis.

Instead, he took some over-the-counter remedies, got sicker, lost weight, and finally went to the local hospital Emergency Department, where he waited two hours in the small waiting room before the doctor (busy with a trauma case) could see him. He coughed a lot in this room in the presence of a number of people, among them babies and an elderly man in a wheelchair who seemed short of breath. Once examined, Ramiro explained his symptoms in limited English (there was no Spanish-speaking interpreter available). He was diagnosed with acute bronchitis, given a scrip for an antibiotic, and discharged. No follow-up plan was advised, nor was he referred to the Health Department. Later he received a sizable bill from the hospital. He failed to improve, of course, despite spending $48 on the medicine. By the time Ramiro was accurately diagnosed, 2 1/2 months later, he had infected at least eleven people with TB, and had been unable to work for several weeks.

Let's think about Ramiro with respect to the proposed principles in my sidebar, "A Wish List". He lacked coverage (even so-called Emergency Medicaid probably would not have paid for outpatient treatment), and lacked access in all of its elements…availability, appropriateness, affordability. Prescribing a garden-variety antibiotic in the ER, though understandable, was not effective. Patient safety was not protected in this setting: Ramiro could have infected others, including vulnerable patients, in the waiting room. Despite the risk to public health, the highly treatable nature of TB when detected early, the relatively low cost of proper medications and diagnostic tests—all highly prioritized considerations in Oregon—Ramiro's TB went undiagnosed until it was advanced. The provider network was not adequate in Ramiro's locality.

How Ramiro's problems cost him money, time, and good health is a personal matter essentially hidden from society. Just as hidden are the public health costs and the costs of his lost productivity and that of the people he infected. Government, business, agencies, charitable funders, and other community residents did not, separately or together, ensure the proper early care of Ramiro or the protection of the public. As a state, we have not yet engaged in fruitful discussion of how we will ensure adequate healthcare of new immigrants, since the federal government abdicated this responsibility in 1996. Finally, Ramiro neither contracted TB nor escaped early, effective treatment through any fault of his own.

We can fix or prevent every failure represented in this composite case if we properly reform the way healthcare is organized and provided in our system. Ramiro is a reminder that patient-centered healthcare will serve communities when it effectively serves individuals.

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and political campaigners hire marketers to design sound bites that sully civic discourse. Even when, for example, the media exposes important scientific information about hormone replacement therapy, spin doctoring by powerful interests quickly confuses most consumers and too many professionals.

Legislators cannot find sufficient common ground even on the basics of healthcare financing, much less on innovations or reductions in health disparities. In the last two years in Oregon, the legislature conspicuously lacked a solid commitment to expand Medicaid. To allow the homeless, people with chronic or progressive diseases, children, immigrants, addicts and drug abusers, or low-wage workers to go without ready access to primary and preventive healthcare consigns society to epidemics of contagious diseases, more money spent in intensive care units and emergency rooms, a greater incidence of disability, less productivity, poorer economic indicators, more traumatic injuries, higher levels of crime and costs of corrections, and other undesired expensive effects.

If this were somehow translated into a visible ecosystem, say a lake and its surrounding forest in an Oregon mountain range, we would see prematurely dying trees, polluted water and species in danger of extinction. In our healthcare ecosystem, we find over 423,000 people in Oregon (50 million in the United States) without adequate insurance coverage. We observe that African-Americans and Hispanics are more than twice as likely as whites to report no regular source of healthcare, or to use the emergency room as their regular source of care. We accept cost-shifting for emergency and late-stage care of diseases that should have been treated earlier—heart attacks in diabetics, strokes in hypertensives, crisis care for the mentally ill, and revolving door approaches to drug addiction. We watch as costly new drugs and medical technologies emerge almost daily, vendors marketing them directly to the public in order to drive up demand—without conscious social planning with respect to affordability, cost-benefit analysis, or ethical appropriateness.

America steadfastly resists articulating clear values and goals, refusing to come to terms with what the 21st century demands to protect the public's health.

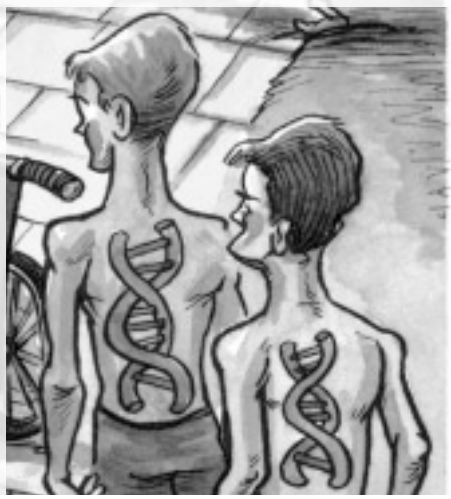
We must speak the basic truths aloud and regularly. Everyone in Oregon needs access to affordable, essential healthcare with an emphasis on primary and preventive services. If public partnerships can deliver these goods, fine. But it is communities and their governments who must ensure such care.

All of us, together, must create community systems that succeed in optimizing our health. The idea behind the fashionable phrase "personal responsibility," however, contributes very little here. Ecological principles accurately predict that if my neighbor has a heart attack from smoking, or head trauma from failing to wear a motorcycle helmet, it will cost me money. If a person with an untreated drug addiction or poorly controlled diabetes blacks out while at the wheel, her misfortune may turn you or your children into victims as well. *(Please see sidebar, Ramiro: A Case Study.)*

Together, we must define what is meant by essential healthcare, and ensure that when we spend public dollars, we spend them rationally and economically on services of proven effectiveness. The healthcare workforce in Oregon must comprise the right combination of professionals and specialists. We must locate them where people need them, and support them with reasonable financial and logistical systems so that competent individuals don't jump ship. Medical and dental providers should not have to exit the Oregon Health Plan due to reimbursement rates, and rural hospitals should not have to drop essential obstetric services due to liability concerns.

Voters, advocacy groups, legislators, funders and agencies must give both credit and responsibility to sectors other than the traditional "healthcare system" for their impact on the public health. Healthcare advocates and education advocates, for example, cannot afford to compete with each other for funds. We know that uneducated children and adults are demonstrably less healthy than the educated, and that sick kids miss school. Paying for road repairs prevents accidents and disabilities. Cleaning up air and water pollution is a health service, not "just" environmental protection. Similarly, society must recognize, support and strengthen the traditional healthcare system because of its crucial contributions in other areas. Dentistry to repair decayed and unsightly teeth makes an adult more employable and adds to productivity. Treatment of drug addiction reduces costs to the judicial and penal systems in the long run.

Finally, thinking ecologically about health and healthcare means that each of us—wearing all our different hats (consumer, provider, taxpayer)—must be willing to accept trade-offs. Once we recognize the ecological principles at work, we can appreciate that apparent sacrifices are really



a matter of rational self-interest. Would I be happy with health insurance that increased my co-pays by $5 per doctor visit, or increased my deductible by another $200 per year, if it really meant that some uninsured, lower-income neighbors would get coverage? You bet I would. That's a great trade-off—not just in a compassionate sense, which is extremely important in itself—but also because we all benefit from the improved health of those neighbors.

Framing and carrying out such tradeoffs properly, fostering understanding among Oregonians, and achieving consensus amount to a tall order and are all vitally necessary for sustainable protection of the public's health. We must articulate guiding values and criteria, and return to them regularly, in order to reform Oregon's healthcare successfully, accountably, and ecologically.

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Since 1981 she has served as a clinician and medical director in two other migrant and community health centers. She was the Health Officer for rural Hood River County for 12 years, and helped to develop and direct several community programs, among them El Niño Sano, or "The Healthy Child," a pediatric health promotion project staffed by lay health promoters from the Latino farm working community.

Dr. Castañares teaches and consults extensively about healthcare delivery and policy, both nationally and internationally. From 1989 through 1993 she was one of the original eleven members of the Oregon Health Services Commission, best known for developing the priority list used in Oregon's pioneering Health Care Reform Plan.

A Wish List: Sound Healthcare Principles for Oregon

Coverage: Every resident of Oregon has coverage for essential healthcare.

Access: Every resident of Oregon has reasonable access to essential healthcare, including:

- Affordability: financial constraints do not prevent us from seeking or receiving essential and preventive care, nor do we incur serious financial harm as a result.
- Availability: we can reach an adequate provider network and receive timely care.
- Appropriateness: professional skills match the health conditions that typically arise; providers have cultural and linguistic competence, and services are feasible for the disabled.

Effectiveness and Quality: Providers use therapies based on sound scientific evidence. The system both requires and rewards continuous improvement in the delivery, safety, and timeliness of care.

Prioritization: Healthcare services ensured by society are those most important to Oregonians, as determined by fair, independent representatives of the population. Such a body thoughtfully defines essential healthcare and revises this definition at regular intervals. Not everything can be subsidized, nor should it be. We award high rankings to proven preventive, primary, early intervention, trauma, infection control, and comfort care. Essential care includes skilled assessment and treatment as well as health education, ancillary services and equipment, indicated therapies and necessary medications, and supplies.

Provider Network: Oregon supports an adequate number and an appropriate mix of healthcare providers (therapists, dentists, doctors, nurses, hospitals, clinics, public health departments, skilled nursing facilities, educators, community health workers, etc.). Providers receive fair compensation and the system assists in the costs of professional training and retention. Oregon supports creativity and cultural competence. It also financially assists "the safety net," recognizing its strengths in serving special populations and regions—even once gaps in coverage have been bridged.

Financing: We increase incentives for providing preventive care and treating problems early, and reduce incentives for treating patients whose conditions are advanced. The system employs cost-saving strategies wherever possible across all systems, but only if these actions conform to all other guiding principles.

Transparency and Clarity: The system clearly identifies how each healthcare dollar is spent, enabling Oregonians to "follow the money." We regularly and systematically discuss appropriate profit margins, community benefit, and the status of our healthcare services vis-à-vis articulated Oregon values. We measure and report population-based health indicators; specific interventions and programs address identified disparities or deficiencies. We consider not only traditional indicators, but also broader benchmarks, such as children's readiness to start school.

Regulation: Fair oversight and administration of ensured heathcare are systematically carried out by entities with appropriate experience and judgment. Marketing of healthcare services and products is analyzed with respect to its impact and conformance to other governing principles, and is regulated accordingly. As with other costs, the cost of regulation itself is monitored and we strive always to reduce unnecessary expense.

Role of Government and Taxpayers: Government gives communities sufficient flexibility to advance these principles. Many parties are involved in ensuring coverage of essential healthcare and access to such care. However, where other efforts fail or meet intrinsic limitations, government exerts its proper role in ensuring such coverage and access, and taxpayers support our governments in this endeavor.

Consensus and Community: At both the community and state levels, Oregonians create consensus-based and collaborative approaches to budget shortfalls, demographic challenges, workforce problems, emerging healthcare needs, costs of new technologies, prioritization questions, and other ethical dilemmas. We use community-building principles in designing healthcare (because we understand ecology). We support civic associations, not only public agencies and institutions, in developing consensus.

Public Health: All residents of the state, without discrimination, have access to essential care in order to protect the public health. Oregon does not make restrictive distinctions having no intrinsic relationship to public health, such as immigration status or county of residence.

Personal Responsibility: Health promotion efforts and financial incentives motivate Oregonians to improve and maintain their health. Oregon does not, however, abdicate its proper role by citing "personal responsibility" as the solution to the complex financial, educational, and cultural problems which obstruct healthcare access and coverage, or to the biological, genetic, and physical variables that result in illness and injury.

Healthcare in Context: The people of Oregon think ecologically about health and healthcare with respect to other social priorities and costs. Such thinking, and the decisions resulting from it, are participatory, transparent, and dynamic as society continues to evolve.

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