According to NIFLA, CPCs also attract more women when they begin offering ultrasounds.

Crisis pregnancy center efforts to obtain medical clinic status by incorporating sonography are being funded in part by grants from conservative Christian organizations such as Focus on the Family, based in Colorado Springs, Colorado.

Nurses and directors from pregnancy centers can train at NIFLA's Institute in Limited Obstetric Ultrasound, which, the organization says, follows guidelines from the American College of Obstetricians and Gynecologists (ACOG) and the American Institute of Ultrasound in Medicine (AIUM). While spokespersons for ACOG and the ultrasound medicine organization declined to comment about pregnancy centers and their use of limited obstetric ultrasound, they did point out information on their organizations' websites that suggests the centers are not adhering to professional guidelines.

"A limited examination is performed when a specific question requires investigation," according to ACOG's ultrasound guidance. "It does not replace a standard examination."

According to the ultrasound medicine institute's statement on limited obstetric ultrasound, "when possible, a standard sonogram is more desirable than a limited sonogram. Lack of qualification or inexperience of the sonographer/sonologist does not justify performance of a limited ultrasound examination when a standard examination is indicated."

Occasionally, Bryant said, patients will show her images from an ultrasound performed at a CPC. "I can tell you that I've seen really crappy ultrasound pictures that didn't look like they were taken by a professional sonographer."

Consequences of CPCs

Although NIFLA reported in 2015 that, based on a survey of affiliated clinics, 78% of women considering an abortion decided against it after they saw an ultrasound image of the fetus, other research suggests that viewing the image has a minimal effect on changing women's minds about abortion.

One recent study conducted in southern Louisiana suggests that CPCs themselves don't carry much sway with women who've decided to terminate their pregnancy. "I haven't found anybody who was certain they wanted an abortion and walked out of a CPC saying, 'No, I'm going to continue the pregnancy," said medical sociologist Katrina Kimport, PhD, who has coauthored a number of articles on the effects of CPCs and ultrasound images on pregnant women's abortion decisions. "We're just not finding evidence that [CPCs are] playing a significant role in women's decision-making." Kimport is an assistant professor in the department of obstetrics, gynecology, and reproductive sciences of the University of California, San Francisco.

While CPCs may not affect women's decisions regarding abortion, they can reportedly exaggerate the amount of time women have left to get an abortion, possibly causing them to delay the procedure past the first trimester when it is most easily accessible. "Decisions about a pregnancy are time-sensitive," noted Donovan. "Every minute spent being misled is a minute that could have been spent receiving accurate information and quality care."

Correction: This article was updated on July 25, 2018, to correct a source's name.

Note: Source references are available through embedded hyperlinks in the article text online.

The JAMA Forum

The Health Innovation We Need

Dave A. Chokshi, MD, MSc

The word innovation is omnipresent in health and health care, describing new uses of technology and data, entrepreneurial ventures, and public sector efforts. Given the many challenges in the US health sector—including decreasing life expectancy, increasing costs, declining rates of health coverage, and potentially widening health disparities—new approaches are undoubtedly needed. But innovation is often tantamount to small-scale pilot projects or to digital tools mismatched with clinical realities, as seen with the electronic health record and clinician burnout.

How do we get from flashes of health innovation to a steadier flame?

Perhaps we should frame it less as innovation and more as imagination. The late theoretical physicist Richard Feynman, PhD, described imagination and the scientific process thus: "The great difficulty is in trying to imagine something that you have never seen, that is consistent in every detail with what has already been seen, and that is different from what has been thought of; furthermore, it must be definite and not a vague proposition."

Pursuing novel solutions to the most difficult problems in health—across the domains of care delivery, public health, and government—requires a similar type of imagination. Care Delivery Transformation

Reimagining how health care is delivered begins with a metamorphosis for primary care. Although primary care is literally the "first point of care" for many patients, it is grappling with competition from convenient care models such as urgent care centers for acute conditions and from new corporate entities (typified by the merger between CVS and Aetna) for chronic conditions. CVS provides thousands of access points that patients may already frequent, while the insurer Aetna changes the incentives such that keeping patients healthy may be a more lucrative proposition. In both cases—for acute and chronic conditions—telehealth could provide a "virtual front
Amid these shifting sands, primary care may need to cede some first-contact services for healthier patients while renewing a commitment to the longitudinal relationships at the heart of comprehensive care for more complex patients.

Another health innovation we need is to ensure that this market ferment translates into benefits for low-income people as well as the more affluent. More than 100 million US residents are Medicaid beneficiaries or are uninsured; too often they are both most in need of solutions to their health problems and most likely to be excluded from those solutions. New programs and digital tools do not focus enough on engaging patients—particularly those who are hard to reach. For many such patients, figuring out where they will sleep at night takes precedence over attending a medical appointment during the day, and if they have a phone, it may be out of service near the end of each month. In addition to directly addressing material needs, simple innovations can have an outsize effect for low-income patients—particularly innovations that give back patients some precious time, such as averting multiple in-person visits for patients with diabetes through use of text messaging to titrate insulin doses.

Public Health Priorities
Karen DeSalvo, MD, MSc, and other architects of the Public Health 3.0 model have urged thinking beyond innovation in clinical settings. In this framework, community prevention complements clinical prevention (eg, immunizations and colonoscopies) and treatment by addressing the social, economic, and environmental factors that predispose patients to illness. For instance, Kaiser Permanente recently announced an investment of up to $200 million, joining with mayors and business executives around the country to address housing stability and homelessness, citing their impact on health.

Actionable data are another element of Public Health 3.0. At the individual level, the promise of data science—particularly when applied to cross-sectoral data sets—may be to better identify inflection points in illness trajectories. Wrong-site surgery is considered a sentinel event for a hospital, triggering review and action. In the same way, perhaps eviction or incarceration should be viewed as sentinel events for vulnerable patients. At the macro level, data visualizations like the City Health Dashboard and The State of US Health can help better align resources and interventions with fundamental drivers of health outcomes, such as risk factors for chronic diseases.

Achieving a threshold level of vaccination helps protect a population against an infectious disease. What would promote an analogous “herd immunity” for chronic diseases such as obesity and diabetes? Prevention would have to be reimagined as something not delivered person by person, but instead through changes to our built environment (such as walking-friendly communities) and changes to our approach to healthful behaviors (such as making nutritious food more affordable than junk food). Local, state, and federal government can all foster community prevention, helping generate herd immunity against chronic diseases.

Role of Government
The Department of Veterans Affairs (VA) could be at the vanguard of addressing the social determinants of health. Although the VA system is generally known for delivering health care services, the broader department administers education and vocational rehabilitation benefits, pensions, legal services, home loans, life insurance, and disability compensation. The VA has already made significant strides in reducing homelessness among veterans from 2010 to 2016. A whole-person approach to meeting medical and social needs at scale could serve as an exemplar for other populations.

A major commitment to innovation in the Affordable Care Act was the $10 billion per decade investment in the Center for Medicare and Medicaid Innovation (CMMI). The center has played a catalytic role for payment and delivery system reform, launching 37 new models, including accountable care organizations (ACOs), bundled payments, and primary care initiatives. As CMMI embarks on a new direction, an emphasis on scaling successful models, like the Diabetes Prevention Program, seems appropriate. Scaling involves not just expanding a model to all eligible beneficiaries but also learning how to “transplant” a program that works in one context into another. Particularly for complex innovations, this requires balancing intervention fidelity (to maximize chances of replicating the original success) with intervention adaptability (to maximize chances of adoption in diverse settings).

An area ripe for governmental innovation is addressing high prices for health care...
services. A recent JAMA study added to evidence that US exceptionalism in health spending is more the result of high prices than of higher utilization of services. One approach to reducing prices in peer high-income countries such as Switzerland and Germany is all-payer global budgeting. By providing a fixed amount of revenue for health systems, all-payer global budgeting curtails price growth. The most recent independent evaluation of hospital global budgeting in Maryland showed a reduction in total expenditures for Medicare beneficiaries, although more research is needed to understand effects for other payers and in other states. The CMMI has supported 2 variations on this concept in Vermont, via an all-payer ACO, and in Pennsylvania, focusing on rural hospitals. Beyond CMMI, additional experiments, such as reference pricing or using the VA formulary to address prescription drug spending, are warranted to address costs.

Of course, government alone cannot turn flashes of innovation into flame. Rising to our health challenges will require reimagined partnerships between the public and private sectors, between patients and clinicians, and between practitioners in health and many other fields that help produce health.

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Bench to Bedside

Research Uncovers How Commensal Bacteria Contribute to Multiple Sclerosis

Tracy Hampton, PhD

A study recently published in Nature reveals that byproducts of microorganisms living in the gut may influence the progression of neurodegenerative diseases such as multiple sclerosis (MS) by controlling the interaction of 2 nonneuronal cell types: microglia and astrocytes. The findings may point to novel treatment strategies and suggest that inflammatory brain diseases could be dampened indirectly via the gut.

Although gut microbe byproducts were previously shown to limit astrocyte pathogenic activities in a mouse model of MS, this new research uncovers the mechanisms at play. "We have a long-standing interest in the effects of the commensal flora on central nervous system–resident cells, and the relevance of those effects for neurologic disease. Thus, we decided to investigate the role of the commensal flora in the control of microglia-astrocyte cross-talk," said senior author Francisco Quintana, PhD, of the Ann Romney Center for Neurologic Diseases at Brigham and Women’s Hospital, in Boston.

In an experimental autoimmune encephalomyelitis (EAE) mouse model of MS, Quintana and his colleagues found that metabolites released from the breakdown of dietary tryptophan by commensal bacte-