

Senate Armed Services Committees.⁵ Congressional interference has prevented the military from acting at local command levels to address tobacco use. For example, a smoke-free policy set at an Army installation and a campaign to motivate cessation at an Air Force Strategic Air Command unit⁵ were rescinded after tobacco-industry allies in Congress intervened. In fact, in response to the latest announcement from the secretary of the Navy, the House Armed Services Committee has already included language in the new defense-authorization bill that could force the military to continue cheap tobacco sales. As of late June, the language was not included in the Senate bill.

Tobacco use harms military personnel, impairs readiness, and

incurs unnecessary costs to individual service members and the military as a whole. Military service should not be a risk factor for tobacco initiation: many young people who join start to use tobacco only after enlisting. We propose that Congress quit doing the tobacco industry's bidding, citizens quit subsidizing cheap military tobacco sales, and civilian public health organizations and military supporters stand shoulder to shoulder with Secretaries Hagel and Mabus in moving toward a stronger, healthier, tobacco-free U.S. military.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

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Adverse Effects of Prohibiting Narrow Provider Networks

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The nominal goals of the Patient Protection and Affordable Care Act (ACA) — protecting patients and making insurance affordable — are often contradictory: policies that promote access often increase costs. If health insurance is unaffordable, fewer consumers will buy insurance on the exchanges, and the federal government will have to spend more on subsidies for those who do. Faced with ACA-based limitations on their ability to trim benefits and increase cost-sharing levels, many exchange insurers have opted to control costs by offering plans with narrow provider networks.

According to a recent analysis

of exchange plans by the consulting firm McKinsey and Company, about 40% of plan networks were classified as “ultranarrow” or “narrow,” meaning that they contracted with less than 30% or 70%, respectively, of the hospitals in the plan rating area.¹ The situation is fluid. Some plans' networks may expand as the exchange market matures. Other plans may shrink their networks so that they can match the premiums of their narrow-network competitors. Some plans exclude nearby “name-brand” providers such as M.D. Anderson in Houston or Cedars-Sinai in Los Angeles. Less than half of ultranarrow network plans contract with an academic medical center.¹

These developments have caught ACA supporters off guard and challenged the veracity of President Barack Obama's oft-repeated claim that “If you like the doctor you have, you can keep your doctor.”² Not coincidentally, the Centers for Medicare and Medicaid Services (CMS) recently proposed new regulations to promote network adequacy. These regulations promise to expand plans' networks, but regulators should not assume that a pro-provider stance is inherently pro-consumer or even pro-patient.

The ACA requires qualified health plans to maintain adequate provider networks. Initially, CMS took a hands-off approach to enforcement, but in February, the

agency released a draft letter to federal exchange plans proposing policies to promote “reasonable access” to providers.³ Beginning in late 2014, insurers selling policies on the federal exchange will be required to submit provider lists to CMS, which will assess network adequacy for the plans offered in 2015 using the vague and yet-to-be-defined “reasonable access” standard. The plans’ coverage of hospital systems, mental health care providers, oncology care providers, and primary care providers will be subject to increased scrutiny. Insurers are also required to contract with at least 30% of the “essential community providers” in their service areas, up from 20% in 2014. This category includes clinics that cater to low-income patients but also many large hospitals.

States are also stepping up enforcement of existing network-adequacy requirements and considering new restrictions on insurers’ networks. In some states, insurers and providers have waged battle in public after exchange insurers announced plans to offer products with narrow networks. Regulators have often sided with physicians and hospitals, forcing plans to expand their provider rolls.

Plans establish provider networks for many reasons. Some benefit consumers; others have the potential for harm. Most important, networks give insurers leverage in their negotiations with providers over reimbursement rates. Insurers rely on the threat of exclusion rather than the actual narrowness of their networks — providers that do not face the threat of exclusion have little reason to temper their demands for higher prices. As providers con-

solidate into large health systems, exclusive networks will provide insurers with their only recourse for limiting increases in payment rates. By shifting bargaining power to providers, CMS network-adequacy regulations may lead to higher reimbursements, insurance premiums, and ultimately costs to taxpayers. These regulations could spur further consolidation, as independent physicians and smaller hospitals seek to negotiate under the umbrella of the “must have” systems.

Insurers argue that they use provider networks to steer patients to high-quality providers, and there is evidence to support this claim. Hospitals with higher survival rates for coronary-artery bypass grafting (CABG) and kidney transplantation are more likely to be included in insurers’ networks, and patients in plans with restricted networks receive CABG and kidney transplantation at hospitals with better outcomes than the hospitals used by patients who are free to seek care wherever they like.⁴ Even when provider-level quality measures are available online, it can be difficult for laypeople to make sense of the information. Paradoxically, patients may be better off when their options are limited. All patients, not just those in plans with restricted networks, benefit when providers compete on quality.

In recent years, insurers have become more involved in the delivery of care, encouraging providers to adopt best practices, adhere to clinical guidelines, and deliver care in a cost-effective manner. Not all providers are enthusiastic participants. Some are reluctant to invest in medical-records systems that can report data to insurers electronically;

others cling to outdated practices. Insurers’ efforts to improve care will suffer if they are unable to remove noncooperative providers from their networks.

Many large health systems have responded to the ACA by forming their own health insurers, which offer narrow networks of system-affiliated providers. By coordinating care and unifying physicians under a single management structure and medical-records system, these groups hope to reduce costs for patients with complex chronic conditions. Groups with such integrated systems will find their task much more difficult if they are forced to contract with outside providers, some of whom may be their competitors. Network-adequacy requirements inadvertently undermine the ACA’s goal of promoting delivery-system innovation and care coordination.

Of course, insurers’ motives for restricting provider networks are not always so benevolent. They may use networks to “manage” the risk profile of their enrollees. Plans that offer broad provider networks and access to specialized health care providers risk attracting high-cost enrollees. Conditions such as mental illness and cancer, which are associated with high costs and for which high costs are predictable from one year to the next, are of particular concern.⁵ Since enrollees with these types of conditions know they will need care in the next year during the enrollment season, they will gravitate toward plans that offer access to high-quality providers. Because exchange-plan executives were concerned about the possibility of attracting a high-risk patient population during their first year of operation,

they may have used narrow networks to discourage enrollment by persons with costly conditions.

The potential for provider networks to influence the risk profile of plan enrollees provides an economic rationale for regulation of insurers' networks, but I would argue that CMS and state insurance commissioners should not force insurers to contract with providers or otherwise interfere in plan-provider negotiations. In addition to increasing insurance premiums, network-adequacy regulations risk politicizing insurers' decisions about provider networks — and a provider's success shouldn't depend on its influence with key legislators or regulators. Opponents of the ACA fear that it will lead to reactive, ad hoc micromanaging of the health care system; the “reasonable access”

policy does little to assuage this concern. CMS would be wise to limit its role to ensuring that plans make their provider lists readily accessible to consumers before they choose a plan.

Plans could control costs while diminishing consumer concerns about limited choice by making greater use of tiered networks. Tiered networks allow patients to receive care from a broader set of providers but require patients to pay higher out-of-pocket costs if they go outside the core network. If consumers value choice, the market will evolve in this direction without prompting from regulators.

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Genotype–Phenotype Correlation — Promiscuity in the Era of Next-Generation Sequencing

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Ever since Mendel observed the varied phenotypes of peas — green or yellow, smooth or wrinkled — phenotypes have been used to systematically identify the genetic causes of disease. Similarly, genotype–phenotype relationships in humans could be dissected only if there were clearly recognizable, and relatively homogeneous, phenotypes. Since broad searches of genetic information were not technically feasible or cost-effective before the advent of next-generation sequencing (NGS), scientists studied well-characterized families to narrow the list of plausible genetic causes. How-

ever, being restricted to this set of “solvable” genetic problems led to ascertainment biases that favored highly penetrant mutations with straightforward functional consequences — that is, loss of function, gain of function, or dominant negative mutations dramatically affecting protein function. Thus, genetic studies before NGS systematically underestimated the true amount of genetic variation.

Understanding the extent and sources of this variation is critical in diagnostic applications, since clinical care and treatment options rely heavily on predicting

phenotypes from genetic polymorphisms. For many mendelian diseases, single genetic variations (e.g., single-nucleotide polymorphisms, frameshift insertions and deletions, triplet repeats, and copy-number variants) are often good predictors of clinical disease. Yet for most diseases (both common and complex disorders), prediction of clinical and treatment prognoses is challenging because of complex genetic mechanisms and variable expressivity and penetrance.

The advent of cost-effective NGS (see graph) — especially whole-exome sequencing (WES)