Financial Oversight & Management Board for Puerto Rico

Puerto Rico Healthcare Workforce Study

February 25, 2025

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IMPACTIVO

Financial Oversight & Management Board for Puerto Rico

About the Study

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Study goals and premise

1	2	3	4	5
Model demand for different health care workforce categories based on population health care needs and expected service consumption	**Profile the current state of Puerto Rico's health care workforce supply and forecast supply changes**	**Ascertain the supply-demand imbalance in Puerto Rico's health care workforce**	**Identify health care workforce supply drivers**	**Formulate, profile, discuss and prioritize recommendations for resolving the health care workforce supply-demand imbalance**

- The shortage of health care professionals is palpable, but to date much of this shortage's evidence has been anecdotal.
- It is critical to understand future demand for health care workforce based on Puerto Rico's demographics, disease/condition prevalence, social risk factors and other demand drivers.
- It is also critical to understand the drivers of declines in healthcare workforce, particularly within workforce sectors for which demand is expected to increase.
- Ultimately, the goal of the study was to provide the evidence required to anchor workforce initiatives on facts.

Study components - healthcare workforce model

BASE POPULATION

- Census – ACS (P.R. – level) Demographics
- Census - IDB (P.R. – level) Population Projections

1 →

- Population 1 (P.R. – level) Population Projections + Demographics
- Census (County-level) Demographic Variables

2 →

- Population 2 (County-level) Population Projections + Demographics
- CDC - BRFSS (P.R. – level) Disease Prevalence

3 →

- Base Population (Region-level) Population Projections + Demographics + Disease Prevalence

WORKFORCE DEMAND

- AHRQ - MEPS (Utilization by age and specialty)
- BLS, AAMC (Professionals by category)

4 →

- Population Health Needs (Region-level, into the future)
- Benchmark Staffing Ratios (Professionals by category)

5 →

- Baseline Workforce Demand (Region-level, into the future)

→ Adjustments

- Staffing shortage (HRSA, OECD)
- Higher utilization, major conditions (BRFSS PR)
- Social Vulnerability Index (CDC)
- Service Demand By Care Setting (P.R. encounter data)

6 →

- Final Workforce Demand (Region-level, into the future)

WORKFORCE SUPPLY

- Workforce profile

7 →

- Retirements/Exits/ Entries based on trends and other inputs (e.g., survey)
- Final Workforce Supply (Region-level, into the future)

MODEL OUTPUTS

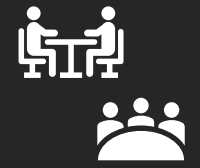
Healthcare services and workforce capability and capacity requirements

- Population Health Needs (Focus: “major” conditions)
- Workforce Demand Projections (Regional, into the future)
- Workforce Supply Projections (Regional, into the future)
- Workforce Demand-Supply Gap Projections (Regional, into the future)

Study components - key informant interviews

- Derived unique value from engaging healthcare stakeholders to obtain perspectives on healthcare workforce challenges and underlying drivers.
- Used these forums to validate or dispel certain beliefs about the state of Puerto Rico's healthcare workforce, "test-market" certain potential recommendations, and gage the receptiveness of different constituencies to certain messages/means of communication.
- Gathered critical inputs for the healthcare workforce survey.

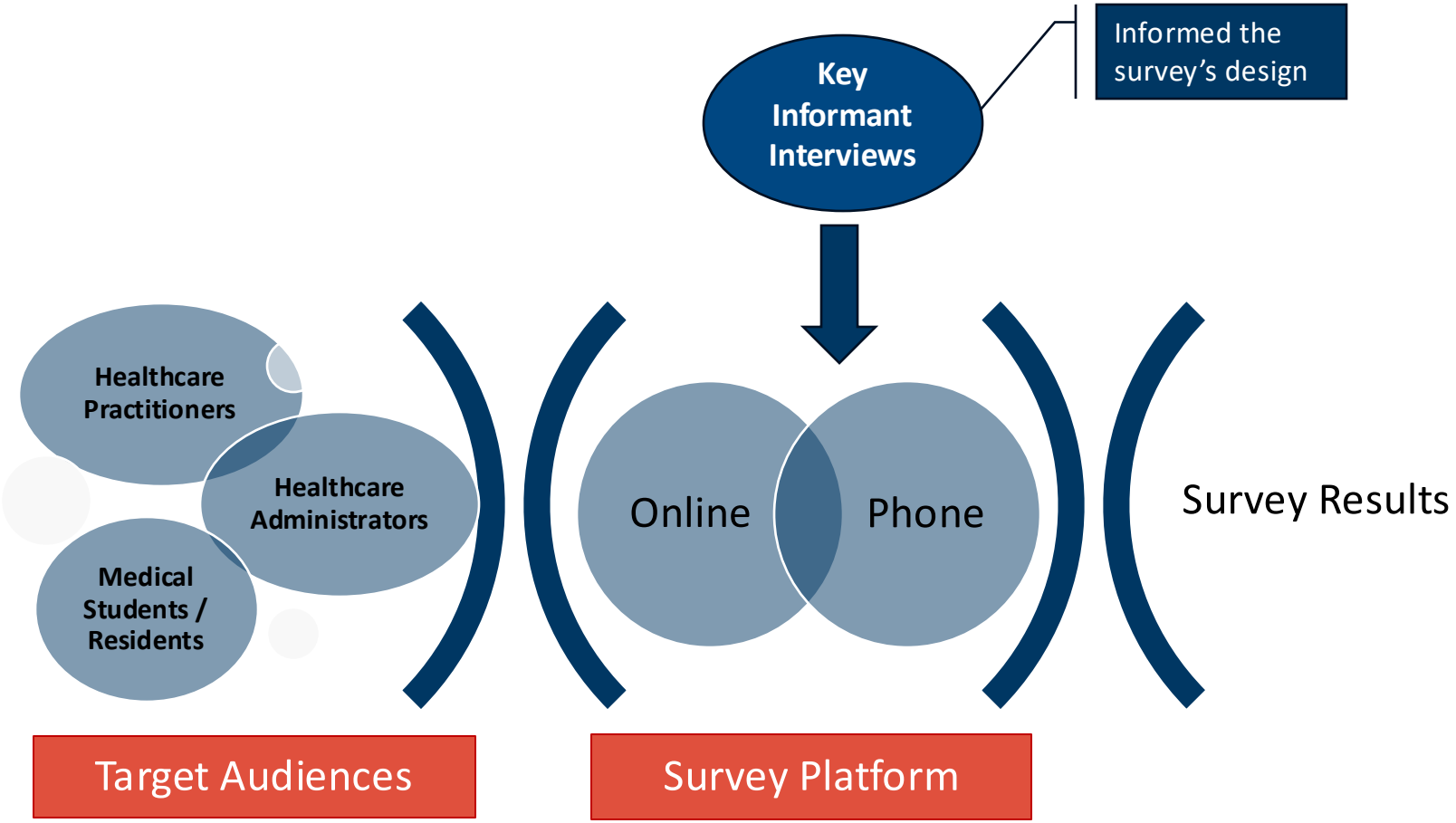
"Fast facts" about the key informant interviews:



1. Held meetings/focus groups with 22 organizations - 70+ interviewees
2. Compiled over 1,000 pages of notes that required extensive distillation and synthesis

GOVERNMENT	ACADEMIA	HEALTH INSURERS	PROVIDERS
ASEM	Ponce Health Sciences University	FHC	Asociación de Enfermeras
ASES	UPR - Recinto de Ciencias Médicas	Humana	Asociación de Hospitales
ASSMCA	Universidad Central del Caribe	MCS	Asociación de Salud Primaria
Department of Health – Secretary, Licensing		MMM	Colegio de Administradores de Servicios de Salud
P.R. Medicaid Office		Plan de Salud Menonita	Colegio de Médicos
		Triple S	Directores Médicos FQHCs
			Asociación de IPAs

Study components - healthcare workforce survey



"Fast facts" about the survey:

Almost 1,000 respondents – sample size and respondents by survey cohort:

Cohort	Sample size	Respondents
MDs and others w/ doctorate degrees	300	502
Nurses	90	155
Allied health professionals	75	102
Administrators	75	75
Students and residents	300	146

Study Findings

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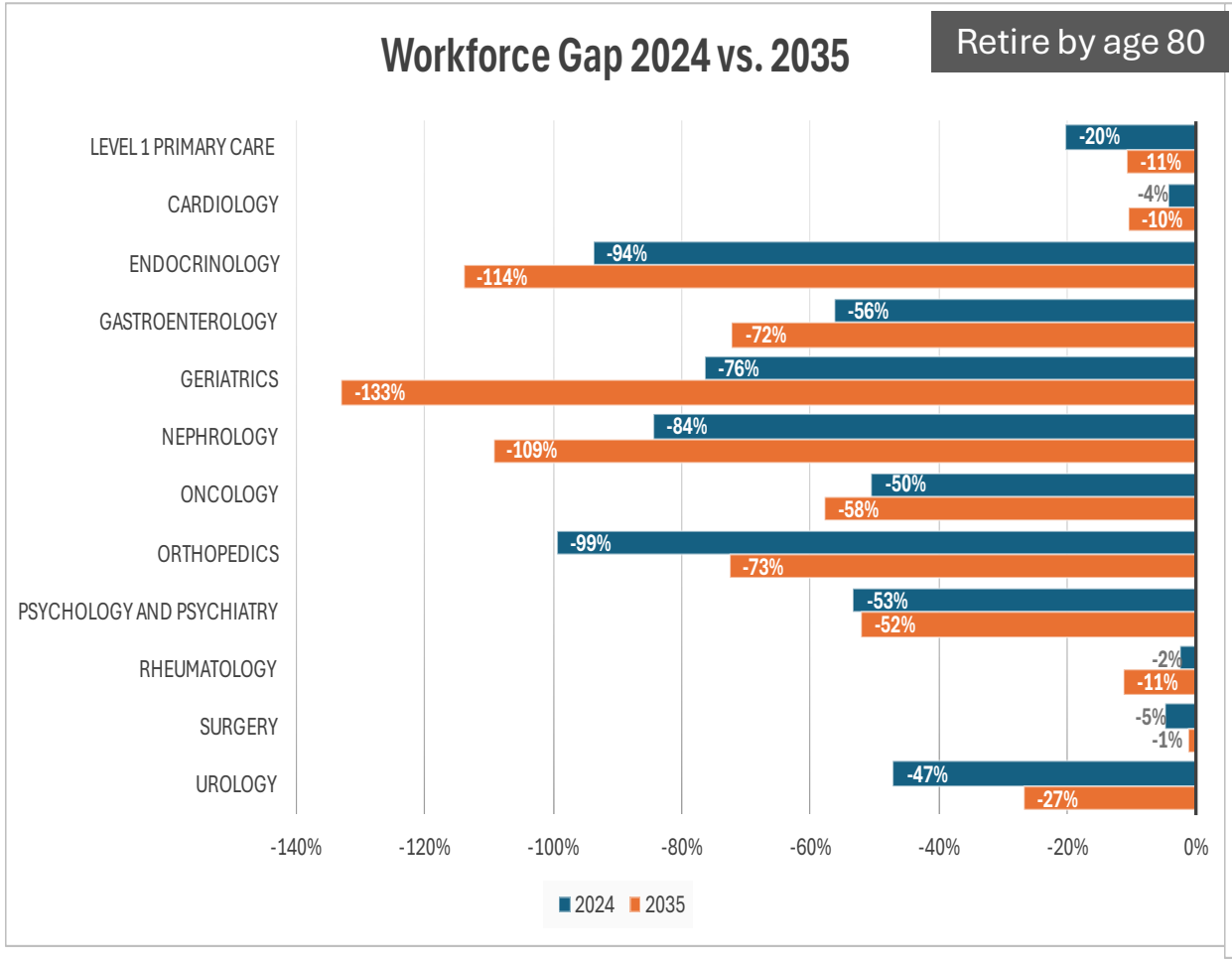
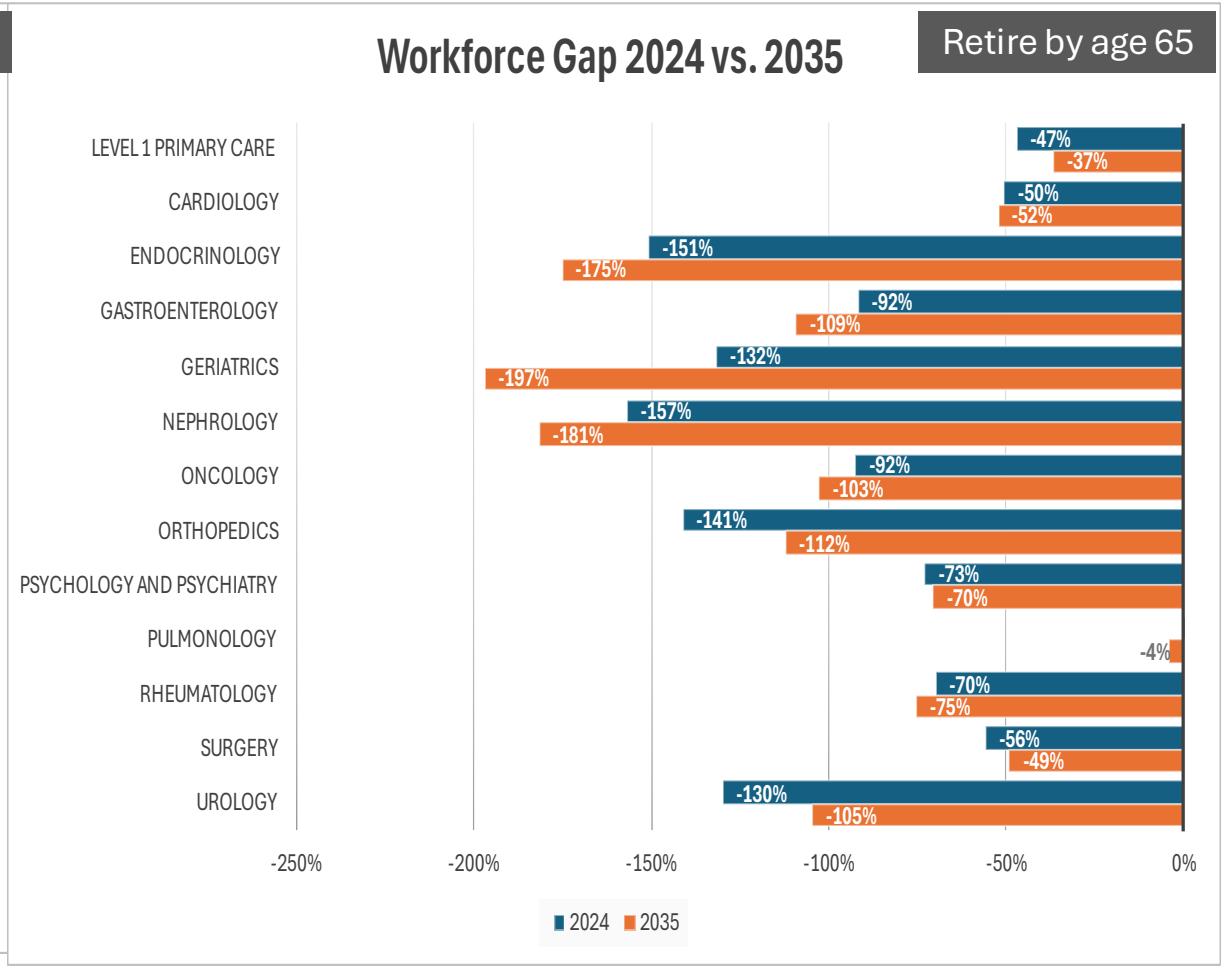
Key findings

From the combined analysis of findings from the model, survey and interviews – some of these inferences may require further validation

There is serious misalignment between workforce demand and supply across multiple *healthcare professional* sectors. The magnitude of the misalignment varies based on demography, patient condition and geography. The advanced age of many healthcare practitioners and the high concentration of specialty care practitioners in the larger population centers exacerbate the misalignment.





Key findings

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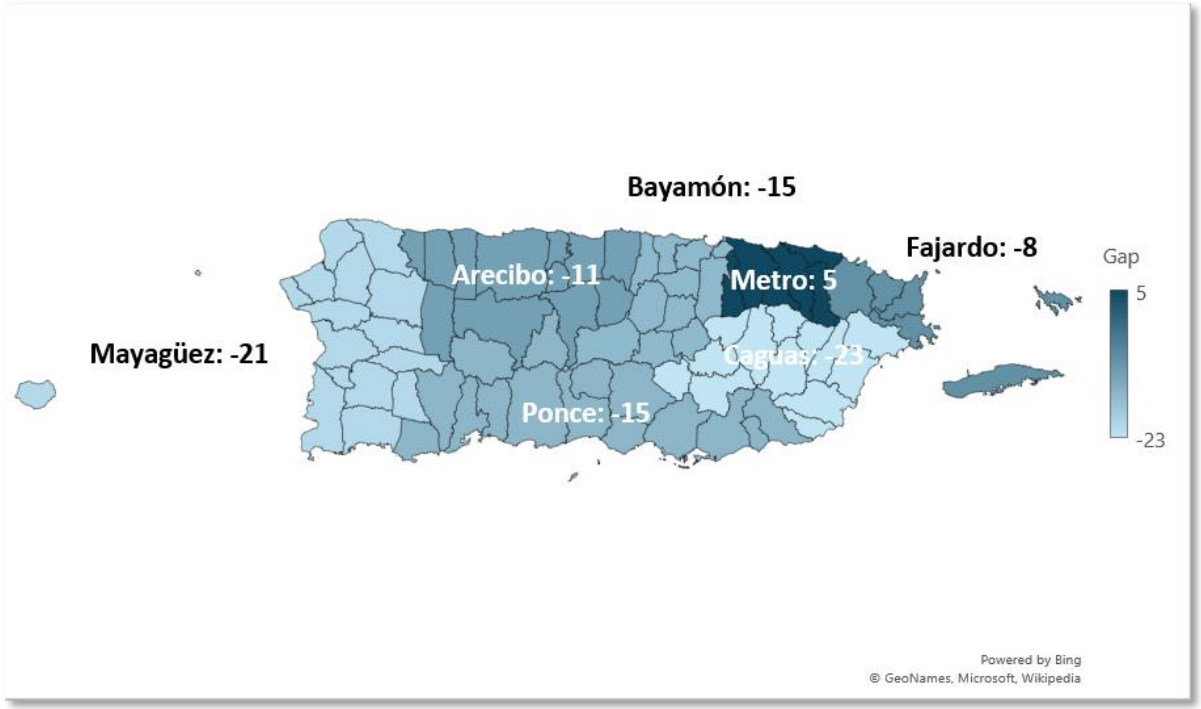
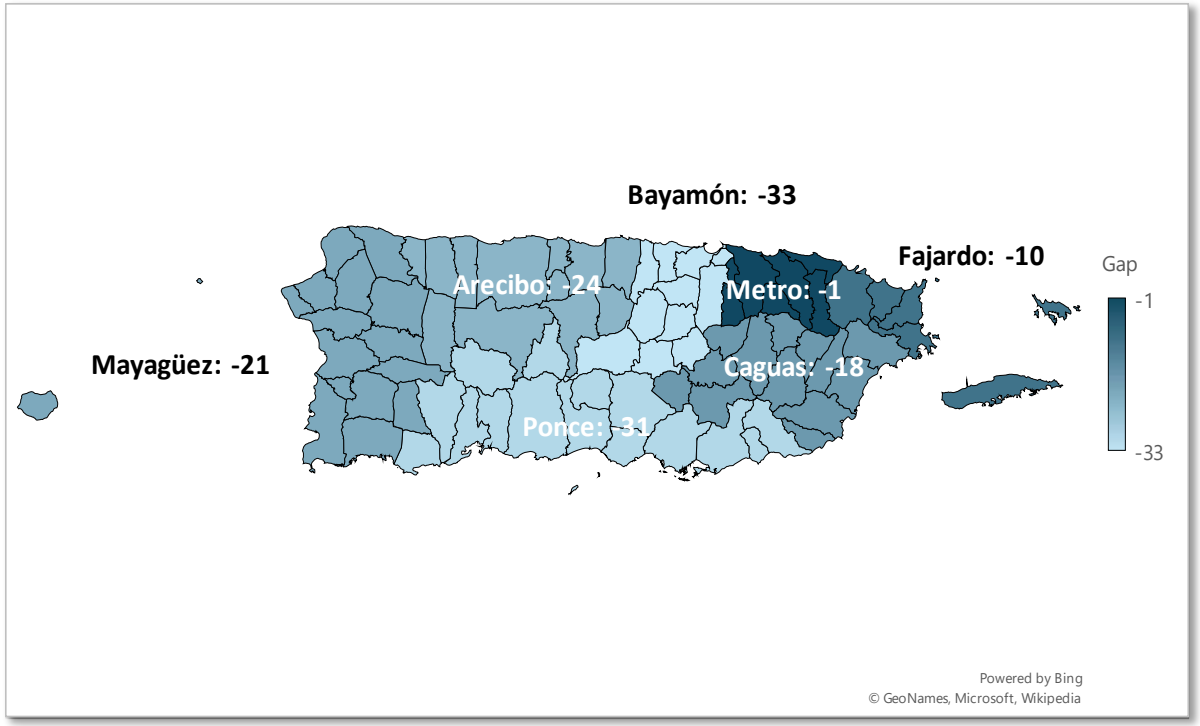
The demand-supply misalignment is more acute in the more rural regions of Puerto Rico. In the case of specialty care practitioners, the model shows a larger gap in the regions of Mayaguez, Arecibo and Ponce.

Examples – select specialty care practitioners

GASTROENTEROLOGY – 2024 GAP BY REGION



ENDOCRINOLOGY – 2024 GAP BY REGION



Key findings

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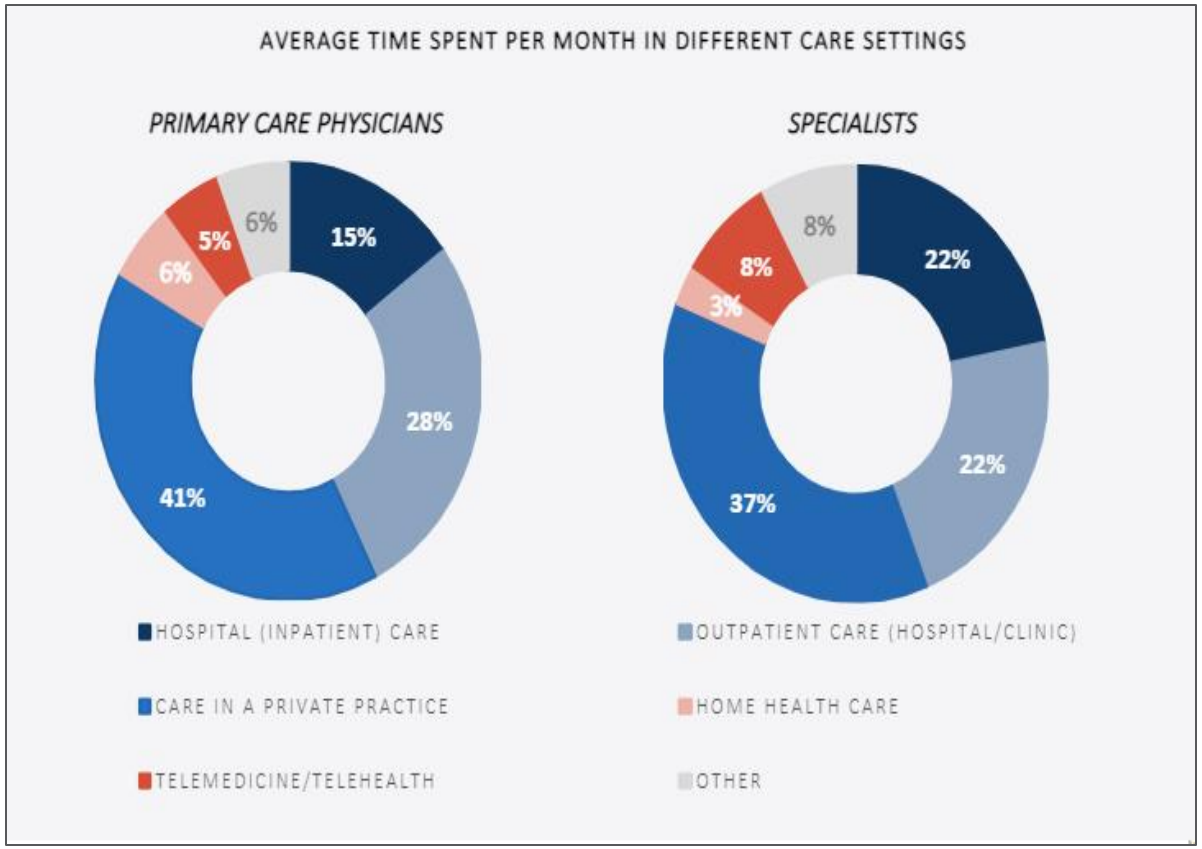
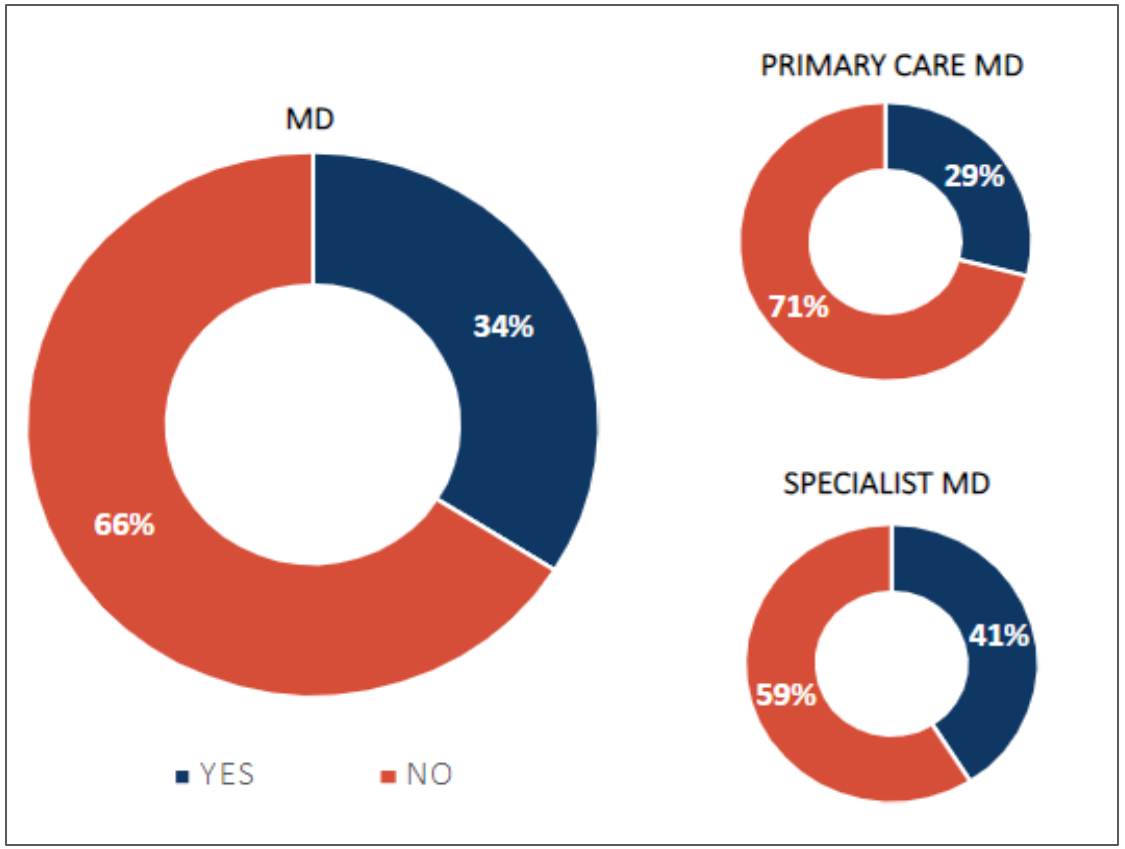
The demand-supply misalignment is exacerbated by significant gaps in practitioner coverage based on place of service. Hospital and home-based coverage are particularly limited, and long-term care coverage is virtually nonexistent.

AVERAGE TIME SPENT BY CARE SETTING, PRIMARY AND SPECIALTY CARE PRACTITIONERS



PHYSICIAN COVERAGE FOR ON-CALL MEDICAL SERVICES AT HOSPITALS ("GUARDIA")



Key findings

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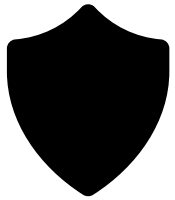
The healthcare workforce deficiencies are not limited to physicians – they exist across the entire workforce.

- Examples include nursing, technicians, coding/health information management, billing, informatics, health information technology support and office/facility management

There are deficiencies in workforce sectors that, while not traditionally categorized as *healthcare* workforce sectors, impact timely access to services and, as a result, put pressure on the existing healthcare workforce in a variety of ways.

- Examples include security, janitorial/environmental services, transportation, child and elder care
- Deficiencies are particularly acute in hospitals and late/night shifts



Key findings

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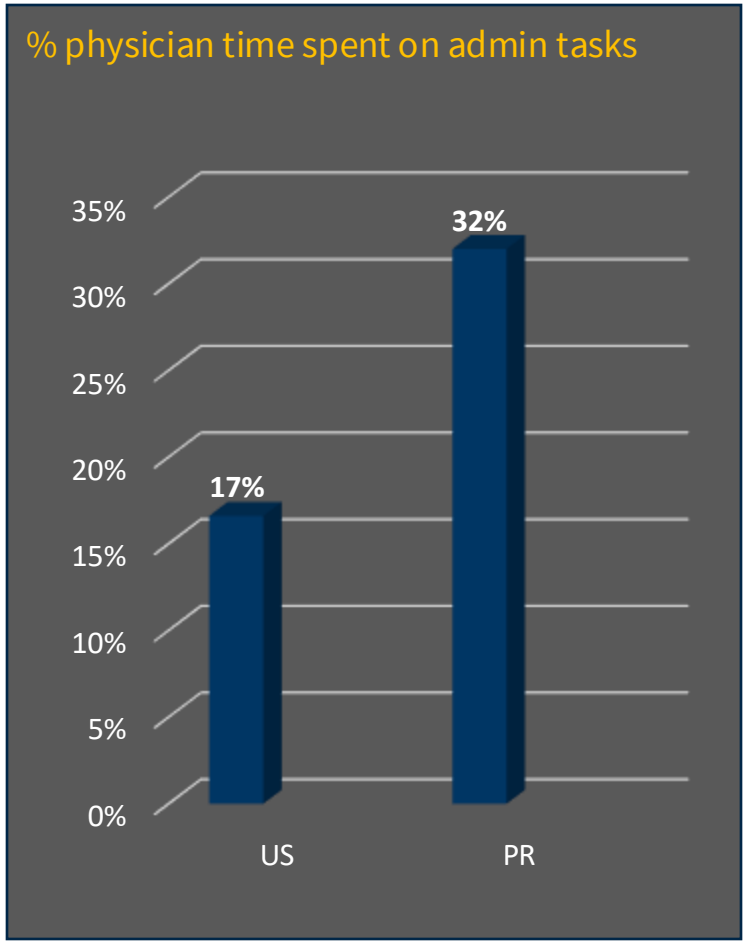
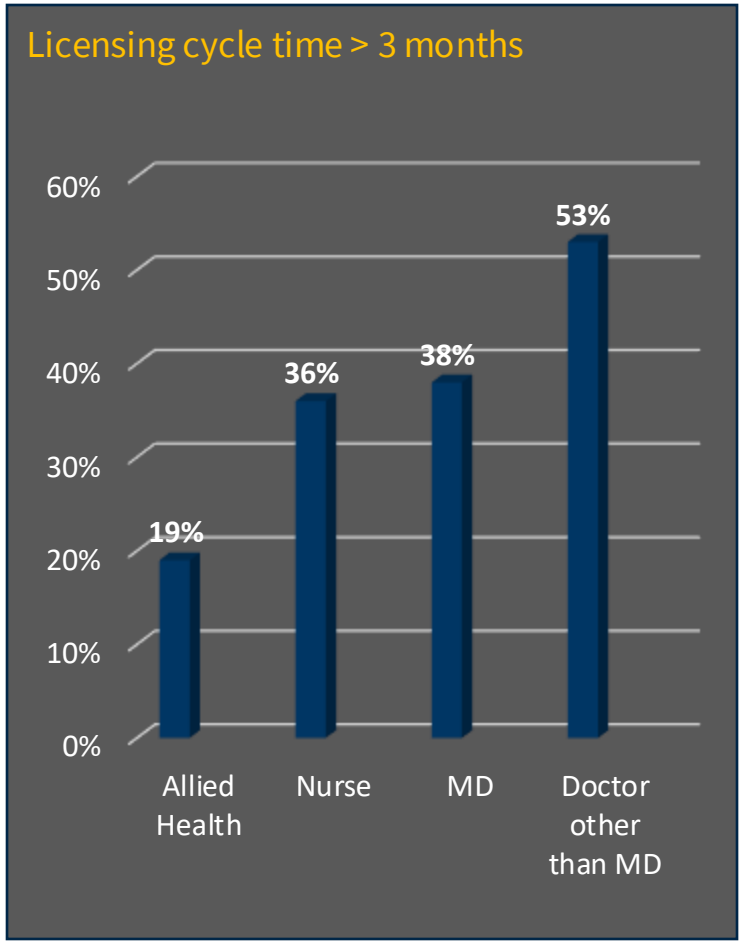
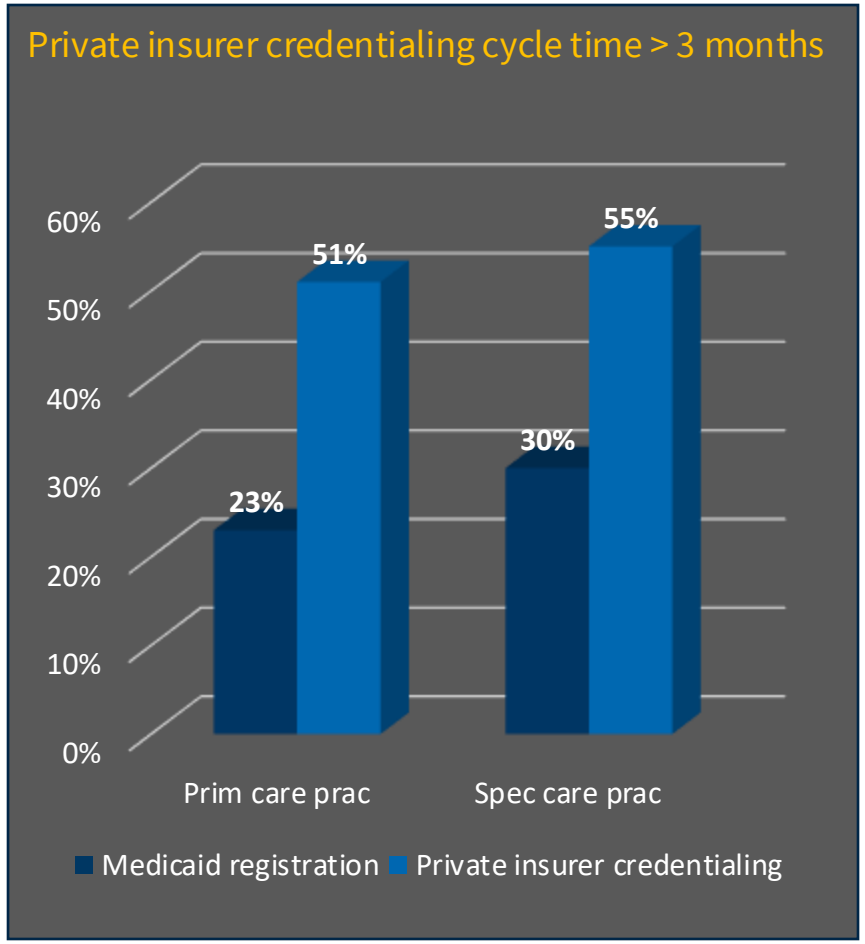
There are numerous administrative inefficiencies that adversely impact healthcare workforce supply.

- Examples include disproportionate administrative burden borne by healthcare practitioners, overly manual and bureaucratic licensing, registration and credentialing processes, insurance company payment/billing rules and practices







Key findings

From the combined analysis of findings from the model, survey and interviews – some of these inferences may require further validation

There are care management and delivery inefficiencies that generate overutilization of certain constrained resources and avoidable utilization of certain services when patient needs and problems are not managed timely or effectively.

- Examples include repeat diagnostic procedures, delayed authorizations, inconsistent post-discharge follow-up, limited access to post-operative therapy services, virtually non-existent long-term care options, and insufficient coordination of care across practitioners

Care management and delivery inefficiencies *cont.*

Key informant interview takeaways: impact of care management and delivery inefficiencies *cont.*

"The type of patient coming to our hospitals is more complicated, and the morbidity and mortality rates have been and continue to increase."

"To get an appointment, we are so saturated that the next available slot might be in six months. Patients with symptoms now end up going to the emergency rooms, which overcrowds the ERs in the hospital system."

"Emergency room patients are among the most affected... ERs have become places for treating chronic conditions that could be managed with a visit to a doctor. But because doctor's appointments are so far out..."

Key findings

From the combined analysis of findings from the model, survey and interviews – some of these inferences may require further validation

There are numerous constraints to the timely access to and effective use of health care information and systems.

- Non-existent real-time health information exchange despite $tens of millions spent and multiple procurements, limited or no communication of critical patient information which can have a direct bearing on patient diagnosis and treatment and can lead to errors, inadequate flow of data from insurance companies and government agencies to providers which impacts patient management and cost.

Key informant interview takeaways: health care information and systems

"We are very behind in this process because when we transfer a patient, and we see this daily here, we are very strict with specific requirements, and the hospital has no way to transfer the records. So, they are not scanned; there is no interoperability; we cannot access a report from another institution." This fragmentation of information creates risks for patients, as their records may be incomplete, misinterpreted, or lost during transfers between facilities.

"Currently, interoperability does not exist; documentation is still physical, and when it arrives, it is fragmented. If we could communicate effectively between hospitals, even among ourselves, many of these problems could be alleviated."

"The connection of information, documentation, and transmission is essential to ensure that the system is not being misused and that patients who truly need the service receive it."

Key findings

From the combined analysis of findings from the model, survey and interviews – some of these inferences may require further validation

There are laws and regulations that adversely impact healthcare workforce supply. Examples:

- Telehealth - practitioners operating outside of Puerto Rico are not able to offer telehealth services to patients in Puerto Rico even if the practitioner is licensed in Puerto Rico.
- Limits on the use and scope of practice of "physician extenders" such as nurse practitioners and physician assistants.
- Regulations that restrict who can perform certain procedures (see takeaway below).
- Credentialing regulations – practitioners need to go through bureaucratic credentialing processes with each insurer

Key informant interview takeaway: laws and regulations

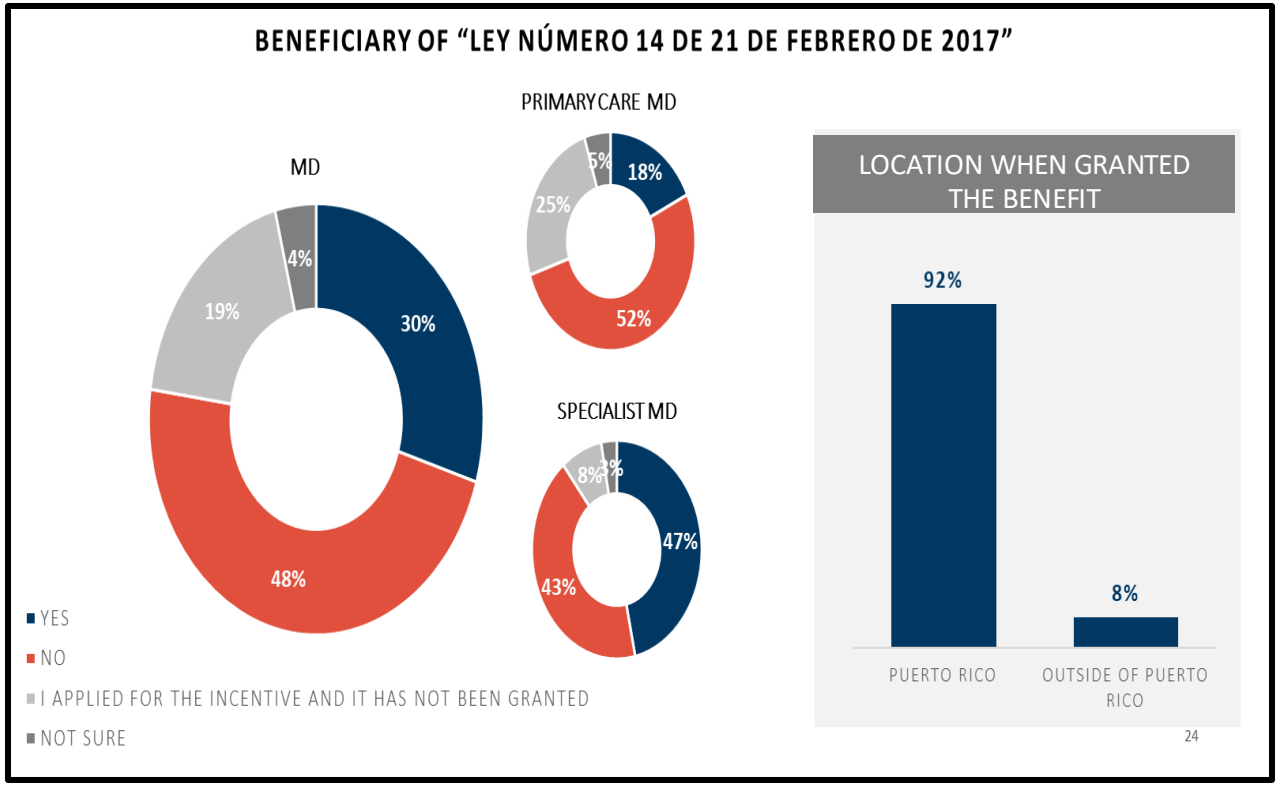
"We need a respiratory technician just to put an oxygen mask on a patient… These rules slow down our operations and reduce the flexibility needed to provide timely care."

Key findings

From the combined analysis of findings from the model, survey and interviews – some of these inferences may require further validation

There appear to be multiple unintended consequences of certain (well-intentioned) policy initiatives.

- Major examples include physician tax incentives and Medicaid physician reimbursement



Most physicians surveyed noted they were not beneficiaries of Law 14, especially primary care physicians. Nearly all beneficiaries were in Puerto Rico when the incentives were granted. In addition, specialists are more than twice as likely to be beneficiaries of Law 14.

Key informant interview takeaway: consequences of policy initiatives

Numerous key informants discussed the effects of GHP rate increases - which set GHP reimbursement rates above Medicare and commercial insurance:

- Physicians were prioritizing treating GHP beneficiaries and, as a result, Medicare and commercial insurance subscribers were experiencing greater delays in accessing care.

- In the absence of increased supply of healthcare practitioners, these practitioners were negotiating higher fees from Medicare Advantage and commercial insurers, driving up premiums for individual and group insurance.

Key findings

From the combined analysis of findings from the model, survey and interviews – some of these inferences may require further validation

There are concerns about the quality of some education programs, which may be contributing to patients not receiving appropriate, timely care which leads to more acute patients with more conditions that are harder to manage.

- Informants noted that new medical school graduates, particularly those who have not undergone rigorous residency programs, may not be fully prepared to meet the demands of primary care. This lack of readiness impacts the quality of care and forces the system to compensate for these deficiencies. A similar concern was noted regarding nurses who have only received simulation training.
- Informants cited the need to provide additional training to new general medicine physicians and nurses to integrate them more effectively into care teams and retain them.

Key informant interview takeaways: education programs

"New graduates, especially those who haven't undergone rigorous residency training, often aren't equipped to handle the demands of primary care. This not only impacts the quality of care but also places additional strain on the healthcare system, which has to compensate for these deficiencies."

"There's a real concern that many nursing programs are producing graduates who need substantial additional training before they can effectively serve in healthcare settings. The shortage of clinical sites is a major bottleneck in ensuring nurses are well-prepared."

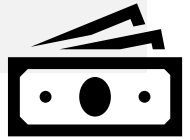
"I had to spend hours explaining everything from referrals to the structure of our healthcare system, because they had no idea how it worked here."

Key findings

From the combined analysis of findings from the model, survey and interviews – some of these inferences may require further validation

There are numerous well-documented funding constraints that have direct bearing on workforce supply.

- Capped federal Medicaid funding is a chronic concern, but on a per capita basis federal Medicaid funding has increased exponentially since passage of the ACA
- Use of Medicaid funding in Puerto Rico is misaligned with the U.S.
  - Example: Medicaid is the primary funder of long-term care services in the U.S. but no Medicaid funds are used towards these services in Puerto Rico
- Federal funding for Graduate Medical Education (GME) in P.R. is lower than in the U.S.
- Fierce competition for certain types of healthcare professionals both within Puerto Rico and with mainland organizations
  - Insurers, care management companies and other companies based in Puerto Rico drawing nurses and some allied health professionals
  - Hospitals competing for the same constrained resources
  - Organizations based in the U.S. are attracting all types of healthcare practitioners with compensation packages that include sign-on bonuses and relocation incentives



Recommendations

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Recommendations

- **Workforce demand recommendations must focus on early interventions on impactable health issues and smarter use of healthcare resources.**
- **Workforce supply recommendations need to address all elements of supply - quantity, availability, capacity and accessibility – and projected future demand.**

Implement Targeted, Conditioned Financial and Tax Incentives that Focus on
- Specialties with the largest *projected* gaps
- Underserved regions
- Increasing availability, capacity and accessibility

Establish Effective Workforce Development Program Planning, Coordination and Governance

Ensure Coverage and Payment Policies Incentivize Coordinated Care and Optimized Service Utilization
- Primary care-specialty care-hospital coordination
- Prevention of disease progression
- Member/patient engagement

Realign Available Funding to Enable Necessary Investments and Redesigned Coverage and Payment Policies
- Government Health Plan focus on high-need, high-cost members
- Health insurance exchange: tailored, lower-cost coverage options
- All-payer reimbursement: reduce admin burden, equalize access

Increase Supply through Legal and Regulatory Liberalization
- Telehealth (primary care, specialty consult)
- Scope of practice

Reengineer Administrative Processes and Systems Adversely Impacting Supply Growth
- Licensing
- Registration
- Credentialing

Invest in Critical Health Care Infrastructure
- Long-term care including institutional, home and community-based services
- Non-emergency medical transportation
- Population health information management
- Health information exchange

Ensure Timely Access and Ability to Respond Effectively to Health Care Funding Opportunities

Experts with Impact™

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