Are the Federal Funds Puerto Rico Receives for its Healthcare System for Medicaid and

Medicare Sufficient Compared to Other U.S. Jurisdictions?

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#### **Abstract**

**Background:** In the complex reality of Healthcare funding, Puerto Rico always seems to be drawing the short straw. To understand the funding disparities within Puerto Rico's healthcare system, it is important to understand that the U.S. Government divides federal healthcare funds by jurisdiction based on certain criteria. Each jurisdiction is given a certain amount of money for Medicaid and Medicare funding.

Medicaid and Medicare Advantage, also known as MA, serve as public health insurances which were implemented to ensure every individual has access to quality care. Medicare Advantage covers individuals 65 and older or with certain disabilities, while Medicaid covers low-income individuals or families.

The problem is that Puerto Rico currently receives significantly less federal funds for its MA program than the vast majority of every other U.S. jurisdiction. This is particularly a detrimental problem in Puerto Rico because as seen based on Puerto Rico's demographic situation, a significant percent of the island population either lives in poverty, is 65 years old and older, or suffers from health disease or conditions.

Furthermore, taking into consideration Puerto Rico's demographic context, as well as the target population of Medicaid and Medicare Advantage, then Puerto Rico deserves an adequate amount of federal funds just as much if not more than any other jurisdiction.

**Methods:** The following study employed a questionnaire that was sent to healthcare experts on the island, which included but was not limited to Doctors, Healthcare insurance, or any other jobs that directly correlate to the Healthcare system in Puerto Rico.

The data that was collected included both quantitative data through the use of questions with only Yes, No, or Not Sure alternatives, while also incorporating qualitative data with the option to provide Verbatims after each question is answered.

**Results and Conclusion:** The vast majority of healthcare leaders in Puerto Rico support the notion that the Medicaid and Medicare Advantage programs are underfunded compared to other U.S. jurisdictions and believe changes should be made to ensure access to quality healthcare for everybody.

The fewer funds Puerto Rico receives for its MA programs, the fewer people are covered for healthcare insurance, meaning fewer people have access to quality healthcare as is their fundamental right.

#### **Literature Review**

#### Introduction

The following information provided in the literature review serves to enhance a greater understanding of the topic. By understanding how Medicare and Medicaid advantage funding works meaning, who receives Medicare and Medicaid, what it provides, and details, while also understanding the demographic context of Puerto Rico such as the Island's economic situation, prevalent health conditions, and the rapidly aging population, among other circumstances, then the disparity in funding will be more clear and the rest of the paper will be understood more heavily.

#### **How Medicare and Medicaid Advantage Funding Works**

As the United States grapples with the complexities of healthcare provision, the linked narratives of Medicare and Medicaid provide a variety of essential services for diverse populations. Medicaid and Medicare Advantage were implemented to provide healthcare to everybody regardless of their age, race, ethnicity, or their economic situation. As these programs attempt to evolve and adapt to changing healthcare needs, the system is not perfect. Medicaid and Medicare funding is a very complex system that is nowhere near perfect.

Medicare and Medicaid are two crucial healthcare programs within the United States healthcare system. Although they both serve the same purpose, which is to provide individuals with vital healthcare coverage and support, they both serve different populations (What's the Difference, 2024). For instance, Medicare Advantage primarily involves individuals aged 65 and older, as well as those with certain disabilities and/or conditions (What's the Difference, 2024).

On the other hand, Medicaid involves individuals with limited resources and low-income families (What's the Difference, 2024). Although the federal government establishes general rules, which all state Medicaid programs are forced to follow, each state decides its eligibility requirements and benefits, causing differences among states.

The Medicaid and Medicare Advantage Program, a vital healthcare initiative, typically works through a partnership between the federal government and individual states, to provide essential services to eligible individuals. Funding is administered by the Centers for Medicare & Medicaid Services (CMS). CMS is a branch of the Department of Health and Human Services that ensures effective implementation and regulation regarding Medicare and Medicaid (Centers for Medicare & Medicaid Services, 2024). CMS also monitors the Medicaid program, which is jointly funded by the federal government and states. On the other hand, Medicare operates through two trust fund accounts managed by the U.S. Treasury. The two accounts are Hospital Insurance (HI) and Supplementary Medical Insurance (SMI). Hospital insurance is funded by taxes on Social Security benefits and Medicare Part A premiums from people who aren't eligible for premium-free Part A (Centers for Medicare & Medicaid Services, 2024). HI covers services like inpatient hospital stays, skilled nursing facility care, hospice care, and certain home health benefits, alongside program administration costs. Supplementary Medical Insurance is funded by Congress, premiums from people enrolled in Medical Insurance and Drug coverage, and other sources such as interest earned on trust fund investments (Centers for Medicare & Medicaid Services, 2024). Benefits of SMI include Medical Insurance, Drug coverage, and MA Program administration, such as costs for paying benefits.

Regarding, federal funds for the healthcare system, the interaction between federal and state contributions to Medicaid and Medicare is crucial. There are many different components involved to make the system work. One of them is the Federal Matching Assistance Percentage (FMAP), which determines how much the federal government will match for each state and the District of Columbia's Medicaid spending. This matching rate ranges from 55% to 83%. The lower the per capita income, the higher the need for MA, therefore the higher the matching rate (Steger, 2021). Moving on to Medicare, the 2021 Medicare Trustees Report shows that over \$348 billion is allotted each year for Part C funding. Additionally, 42% of all Medicare enrollees, or over 26 million beneficiaries, are supported by these funds through Medicare Advantage. Medicare Trustees Report, 2021. The collaboration of federal funding through FMAP and the investment in Medicare Advantage shows how much funds are distributed in The Medicare Advantage Program alone.

#### The Demographic Health Context in Puerto Rico

Puerto Rico is facing significant demographic challenges, including a rapidly aging population, high poverty rates, and significant health issues. The island's rapidly aging population is pressuring government services and social support networks to improve the newly reduced availability of socioeconomic resources. Secondly, Puerto Rico's poverty rate is significantly higher than in the United States, followed by the island's low median household income and high poverty rate are further compounded by a lack of employment opportunities, contributing to significant economic challenges. Lastly, Puerto Rico is experiencing a high

prevalence of chronic conditions and disabilities, resulting in higher rates of deaths from preventable causes, which suggests a lack of access to quality healthcare.

Puerto Rico's demographic situation is going through a difficult change that is highlighted by its rapidly aging population. According to the U.S. Census Bureau, 23.5% of the population in the United States is 65 years or older, highlighting a broader trend of global population aging. This led to Puerto Rico currently having the 10th highest percentage of population over the age of 65, in the world. This change in the population challenges government services, as they have had to change policies and work on economic stability and social support networks to minimize hardships on the Island throughout this age. Furthermore, High rates of migration have sped up Puerto Rico's aging process, while also reducing the availability of socioeconomic resources on the island. For instance, over 700,000 working adults have left the country in the last 15 years, noting that this aging trend is not seen in "comparison countries" (Matós-Moreno et al., 2022). More research on how emigration has affected Puerto Rico's demographic situation is still being done. With 11.9% of the population being 65 through 74 years old, 8.6% of the population being from 75 to 84 years old, and 3% of the population being older than 85 years old, Puerto Rico's age distribution highlighted the challenges the Island faces. (United States, 2022). Puerto Rico needs specialized interventions and support systems to meet the varied needs of the aging population (United States, 2022).

Secondly, another island-wide problem in Puerto Rico is the island's poverty. In Puerto Rico, the poverty rate is significantly higher than in the United States, as seen in the U.S. Census Bureau's American Community Survey for 2022 with an estimated 41.7% of the population

living in poverty, compared to just 12.6% of the United States population. (United States, 2022). Subsequently, a higher percentage of people live in poverty than others in specific age groups: 57.6% of people under 18, 38.1% of people between 18 and 64, and 40.2% of people 65 and older (United States, 2022). These statistics are concerning, especially when followed by the median household income in Puerto Rico, which is only \$24.112, with a margin of error of \$515 ((United States, 2022). This means that the majority of the island's people likely make below minimum wage assuming they would make an estimated \$20,000 annually on a minimum wage salary, and as seen with the median household income, it takes two individuals to make about \$24,000 a year meaning each individual likely makes below minimum wage. However, when comparing it to the median household income in the United States, it is significantly lower considering in the U.S. the annual median household income is about \$74,755 (United States, 2022). Puerto Rico's low income furthermore contributes to the high poverty rate, but another large case is the lack of employment on the island as well. The employment rate in Puerto Rico is very low, with only about 41.9% of Puerto Ricans employed, compared to the United States 60.1% (United States, 2022). This low employment rate contributes to the high poverty rate in Puerto Rico, since it shows that the majority of the population does not even have a job to earn a salary. Overall, this information portrays the significant economic challenges Puerto Rico faces and the need for programs to promote economic development on the island to ensure equality.

Thirdly, another important aspect of Puerto Rico's demographic profile regards the significant health challenges in recent years. For instance, from 2015 to 2022 a higher prevalence of chronic conditions was found per the Puerto Rico Department of Health. The document also

states, that throughout this period deaths from Alzheimer's increased by 26%, heart disease by 11%, and mental health causes by 53%. Most of these deaths were due to substance abuse or dementia, indicating a growing concern for mental health on the island. Furthermore, a presentation made by the Medicaid and Medicare Advantage Products Association of Puerto Rico also known as MMAPA, stated that Puerto Rico has Almost Twice as many disabilities and has a higher prevalence of chronic conditions (Pando et al., 2023). This information is further supported by the 2022 U.S. Consensus, which states that the Disabled Population in Puerto Rico is about 24.6% (United States, 2022). Ultimately, these findings show that Puerto Rico has a very high prevalence of disabilities contributing to its higher rates of chronic conditions and deaths from preventable causes, suggesting that a large amount of these deaths were likely caused by the lack of access to quality care.

In Conclusion, Puerto Rico's demographic situation faces significant challenges, due to the island's rapidly aging population, the high poverty rates, and significant health issues. Overall, Puerto Rico's demographic situation requires urgent attention and intervention, including specialized support systems for the elderly, economic development programs, and improved access to quality healthcare.

#### Addressing a Gap

Puerto Rico has historically been treated unfairly when it comes to MA funding, receiving less funding than every U.S. state and other U.S. districts such as the U.S. Virgin Islands or the District of Colombia. As previously stated, the federal matching rate ranges from 55% to 83%. However, unfortunately for Puerto Rico, the matching rate is capped at a minimum

of 55% and this rate does not take into account the territory's per capita income (Steger, 2021). MA spending, being capped or blocked in Puerto Rico, means that the territory is unable to access the full amount of funding it is entitled to. Despite Puerto Rico not receiving the same level of support as other areas with higher incomes, Puerto Rico has been able to make significant strides in improving the quality of its MA program. For example, provider payments have been enhanced, and the quality of care has been improved through the STARS system (Pando et al., 2023). However, in Puerto Rico, social program exclusions such as the elderly and poverty are major factors that determine beneficiary needs. As a result, the MA program in the territory must make do with inadequate funding to meet the needs of its beneficiaries (Pando et al., 2023). Furthermore, as previously seen based on Puerto Rico's demographic situation, the Island primarily consists of the elderly, due to its rapidly aging population, as well as its high poverty rates. Subsequently, it was also seen that there was a high prevalence of health diseases and conditions on the island, further exacerbating the need for access to quality care on the Island. The problem lies within the fact that Puerto Rico has the highest MA penetration of any U.S. territory, meaning a large portion of the population is under either Medicaid or Medicare Advantage programs, and the recent announcement that MA rates in Puerto Rico will decline between 1% and 3% in 2024 is a cause for concern (Pando et al., 2023). This potential decline could have detrimental effects on individuals on the Island having access to quality healthcare and could harm the health and well-being of many. While Puerto Rico has made progress in improving the quality of its MA program, by doing more with fewer funds, there is still work to

be done to ensure that it receives the same level of support as other U.S. territories and states to guarantee that individuals have access to quality healthcare as they deserve.

#### Methods

#### Introduction

This research study combines qualitative and quantitative methods to investigate healthcare professionals' perspectives on federal funding issues in Puerto Rico's healthcare system. A survey was used to gather insights from a diverse group of participants, including doctors, government officials, and healthcare professionals, selected for their expertise about healthcare challenges in Puerto Rico. Online tools like Google and LinkedIn were utilized for participant recruitment, and later on, Google Forms facilitated efficient data collection.

#### **Hypothesis**

The results that I expected before this investigation were that the vast majority of participants, which would be healthcare leaders from Puerto Rico, would support the notion that the federal funds Puerto Rico receives for its Healthcare system, particularly its Medicare and Medicaid Advantage program, were not sufficient. Additionally, I also hypothesized that most of Puerto Rico's healthcare leaders would agree with the belief that changes needed to be made for more of Puerto Rico's citizens to have access to quality healthcare as is their fundamental right.

#### **Expert Advisor**

Throughout this research project, my expert advisor was Roberto Pando. Mr. Pando is the president of MCS Advantage Inc., a large commercial healthcare company in Puerto Rico, and

actively participates in the Academy of Medical Directors. Due to this, Mr. Pando had access to a great deal of knowledge and documents about the topic, which helped during my literature review process. Additionally, Mr. Pando's expertise allowed him to be in contact with numerous potential participants, leading to him gracefully helping spread exposure on behalf of my survey.

#### **Choosing the Most Effective Form of Research**

For this investigation, I opted to use a survey, since it allowed me to accurately assess the perspective of various doctors and healthcare leaders about the lack of federal funds Puerto Rico receives for its healthcare system. This method enabled participants to provide additional relevant to the study information, while still obtaining quantitative data. Moreover, the survey facilitates quick communication with a range of healthcare experts from all over the island.

Other alternative forms of methods such as interviews would have limited the amount of participants who would be able to participate in the study. Through the use of the survey method, I was able to get numerous amount of quantitative as well as qualitative data from experts all over the Island. Surveys also allowed me to get data from experts from all over the Island, because although my research is not emphasized in any specific region of the Island, having a broader demographic will ensure more accurate results. Additionally, before sending the survey to any participants, the procedure was approved by the Institutional Review Board and deemed ethically riskless for participants.

#### **Informed Consent Form**

Previous to the participants completing the questionnaire, they were required to sign an informed consent form (see Appendix B). It explicitly stated that the questionnaire was

voluntary. Before the distribution of the survey, each participant was also informed of this. If they desired to take part in the study, they were required to sign the informed consent form after reading the terms and

conditions. The consent form explained that the survey was for an AP Capstone Research project, as well as to create awareness about potential disparities in Puerto Rico's healthcare system. Most significantly, it emphasized that the survey was anonymous. The job title is the only information that will be made public. The person who answered the survey will not, however, have any connection to the job title they entered. This means that each participant's job title will be mentioned, but the answers each selected will not be connected to any job title.

#### **Recruiting Healthcare Expert for the Survey**

To obtain credible results from informed and respected personnel, participants who were invited to participate, had to be informed about the topic. Due to this requirement in the survey, the professionals sought for the investigation were doctors, government workers within Puerto Rico's Department of Health, and professionals from commercial healthcare companies.

To recruit potential participants for this survey, I first had to research. The participants who volunteered to take part in this research did it due to the commitment they felt towards advocating as well as raising awareness about the challenges within Puerto Rico's healthcare system. Through the use of their firsthand knowledge and ongoing involvement with healthcare in their day-to-day lives, these healthcare professionals offered a thorough understanding of the discrepancies they believe Puerto Rico's healthcare system faces regarding the lack of Federal Funding received. Participants' cooperation not only braced the research findings but emphasized

the dedication many healthcare leaders feel regarding addressing and improving the current healthcare landscape on the island.

#### Materials used for the investigation

Throughout the investigation, I used a variety of resources and materials to collect data to get into contact with potential healthcare experts who would be willing to participate. This required a strategic approach to identify key individuals and institutions within the healthcare system.

To begin my search for individuals with expertise regarding Puerto Rico's healthcare system, I first opened my laptop and went on Google Chrome. I used Google's search features to find well-known healthcare organizations, on the Island, to start my investigation. I focused on these organizations' recent or notable accomplishments, looked for names that appeared frequently or that had any outstanding achievements within the field and wrote them down in a notebook. Furthermore, I researched the most renowned health clinics or doctor's offices from all over the Island, looked for doctors who worked at these facilities, and wrote those names down in my notebook.

After my search within Google Chrome, I used LinkedIn to expand the range of potential participants I had previously written down in my notebook. Through LinkedIn, I searched all the names I had written down in my notebook and attempted to connect with as many of them as possible. Additionally, using LinkedIn, I also looked through healthcare companies on the Island and looked for names that frequently appeared. After connecting with many potential participants, I looked on their pages for emails I could later use to send my survey.

Then, employing Google Forms for data collection, I created an extensive survey that would incorporate both Quantitative and Qualitative data. Since most of Puerto Rico's population speaks Spanish, I created an alternative for participants to select their language of preference. After selecting their preferred language, participants will be taken into the Informed Consent form - either in English or Spanish - where they will read the terms and conditions of this investigation and decide if they are willing to participate. If participants opt for No, the survey will end for them, meanwhile, if participants opt for Yes, they will then be taken to the questions of the survey, once again in their preferred language chosen earlier. Although the questions were Yes or No questions, participants had the option of elaborating or explaining their answers if they desired.

After creating the survey, use the contact information found either via LinkedIn, Google, or contacts provided to me by my expert advisor. I communicated with these experts via Microsoft Outlook. In contrast, I communicated directly through the LinkedIn app. Using these forms of communication, I explained what the purpose of my research was, as well as elaborated on the Informed Consent form specifications and formally invited them to participate in this investigation.

#### **Data Organization**

A Google Forms survey was used to gather the data, which was carefully organized to guarantee efficiency and clarity in the analysis. This was chosen because the survey questions only required Yes, No, or Not Sure answers. Verbal responses were optional for each question, giving participants the chance to add any further thoughts or recommendations for the study.

Taking into consideration that the survey was collecting both numerical data and verbatim, the most effective form of data organization led to the use of Pie Charts for the Yes, No, or Not Sure responses while also incorporating a tabular method for the Verbatims. This was incorporated in the findings with a table for each question. The data collection was open for about 2 months and a total of 75 participants provided data. Additionally, participants had the option to provide how their employment related to Puerto Rico's healthcare system, which was filled out using a Pie Chart, to further support the participant's credibility. Furthermore, the study incorporated the questions in both English and Spanish, so participants could choose their preferred language. Once the results were all in, I added all the information into Google Sheets, translating them all together, as well as translating using Google Translate the Verbatims provided in Spanish. The decision to incorporate the Google form in English and Spanish was made to ensure the accuracy of these results by not discriminating against those who do not speak Spanish. After gathering all the information from the participants, I was able to conclude that the vast majority of healthcare experts and leaders on the island of Puerto Rico do support the notion that the Medicare and Medicaid program is especially underfunded in Puerto Rico.

#### **Method Limitation**

The limitations in the methodology came when recruiting potential participants. As previously stated, a large number of participants were doctors because it is the job that most directly correlates with the Healthcare system on a day-to-day basis, which would have led to the most accurate as well as credible results. However, Puerto Rico happens to have an enormous scarcity of doctors due to problems such as the lack of funding it receives for its Medicaid and

Medicare programs, as well as numerous other reasons, such as the economic opportunity it can find in other countries. This limited the number of doctors I was able to communicate with, as well as limited how many would be willing to participate due to many doctors having extensive work hours caused by the scarcity of doctors.

#### **Findings and Results**

#### **Participant Information**

A participant pool of doctors (N=56), healthcare insurance employees (N=16), and other participants (N=3), was acquired. Out of all the potential participants who were invited for this research investigation based on their knowledge and experience with Puerto Rico's healthcare system, a participant pool of (N=75) participants was obtained. The decision on which potential participants were considered to have experience with the healthcare system, and who would be invited to participate in the study was based on the job they currently have, as well as previous iobs which primarily consisted of medicinal doctors, commercial segment healthcare insurance workers, healthcare workers within the government, or any other jobs that the potential participants and I felt directly correlated to the healthcare system. Although the study was anonymous, participants had the alternative of providing their employment, which led them to believe they were well-informed about Puerto Rico's healthcare system. As seen in Figure 1, shows a pie chart portraying what the participants identified themselves as, regarding their employment. As seen in the chart, the participants in the study mainly consisted of medicinal doctors, followed by commercial segment healthcare insurance workers. Furthermore, as seen in Figure 2, there was diversity among the types of doctors selected, however, the vast majority

specified themselves as Pediatricians. The following quantitative data is provided using pie charts per question, while the qualitative data, gained verbatim, is provided in a table at the end divided by each question.

Figure 1

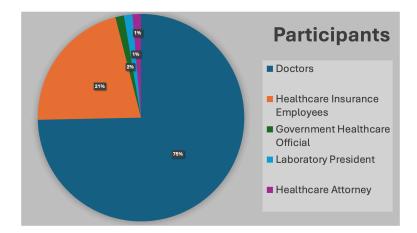


Figure 1. The following chart portrays what line of work participants believed made them informed about the healthcare system in Puerto Rico. As seen, most participants were doctors, including healthcare insurance employees, government healthcare officials, laboratory presidents, and healthcare attorneys.

Figure 2

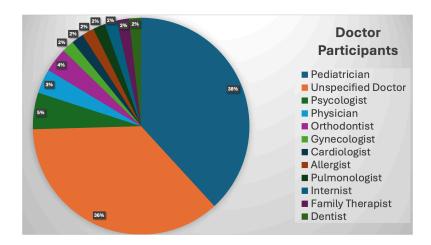


Figure 2. The following chart portrays the specific types of doctors who participated in the investigation since, as previously stated, doctors were the majority of my participants due to their direct correlation to the healthcare system. As seen, the doctors were primarily pediatricians among many other professions.

Figure 3

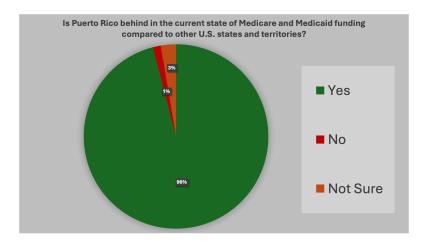


Figure 3. The following chart shows that 96% of participants believe that Puerto Rico's current state of Medicaid and Medicare funding is behind compared to others. U.S. states and territories, while few disagreed or were unsure.

Figure 4

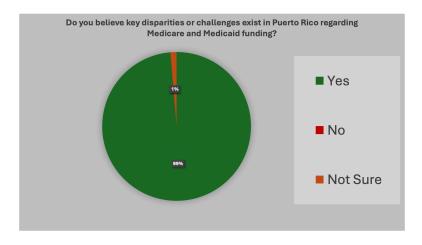


Figure 4. The figure shows that 99% of participants believe that key disparities or challenges exist in Puerto Rico regarding Medicare and Medicaid funding, while the rest opted that they were not sure.

Figure 5

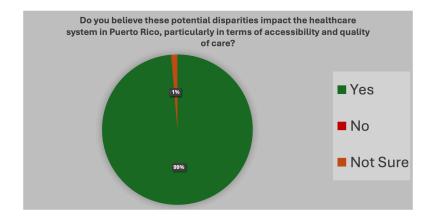


Figure 5. The figure shows that 99% of participants believe that these potential disparities impact the healthcare system in Puerto Rico, while the rest felt that their best option was not sure.

Figure 6

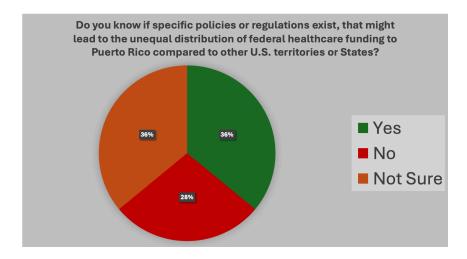


Figure 6. The following figure shows that 36% of the participants believe there are specific policies or regulations that lead to the unequal distribution of federal healthcare funding to

Puerto Rico compared to other U.S. territories or States. In comparison, 36% were unsure and the remaining 28% believed no specific policies or regulations exist.

Figure 7

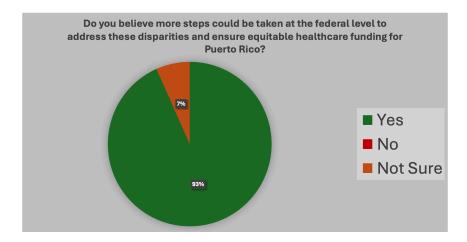


Figure 7. The following figure shows that 93% of participants believe more steps could be taken at the federal level to address these disparities and ensure equitable healthcare funding for Puerto Rico, while the rest were Not Sure.

Figure 8

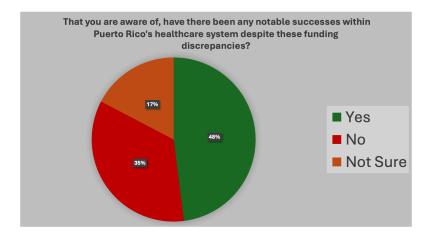


Figure 8. The following figure shows that 48% of participants believe that there have been notable successes within Puerto Rico's healthcare system despite these funding discrepancies, 35% believed there has not been any improvement, and the remaining 17% were not sure.

Figure 9

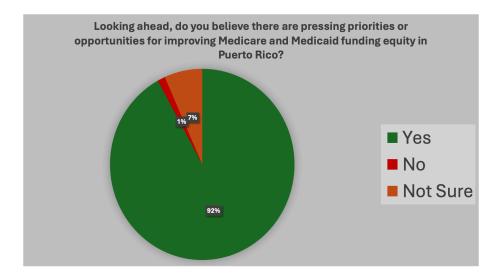


Figure 9. The following figure shows that the majority of participants, 92%, believed that there are pressing priorities or opportunities for improving Medicare and Medicaid funding equity in Puerto Rico regarding its future.

Figure 10

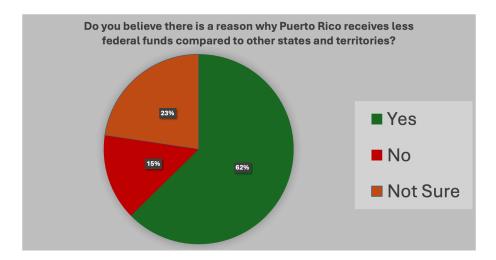


Figure 10. The following figure portrays that 62% of participants believed that there was a reason Puerto Rico receives less funds compared to other states and territories, 15% believed there was no reason, while the rest were not sure.

Figure 11

Questions	Verbatims	
Is Puerto Rico behind	"Puerto Rico funding levels are much less than if it were a State, even	
in the current state of	though the patients are US citizens"	
Medicare and Medicaid	"Physician fees reimbursed are access is limited"	
funding compared to	"I am a physician and have worked both here and in the USA"	
other U.S. states and	"Puerto Rico receives less funding than all other states"	
territories?	"We received less than the Virgin Islands"	
	"Less reimbursement per patient"	
	40% less than the USA mainland"	
	"Puerto Rico only obtains a fraction of the funds granted to the States, even	
	though it has one of the largest populations with chronic and aging	
	conditions."	
	"Citizens contribute in the same way, however, the allocations by the	
	government are less than in other jurisdictions."	
	"Puerto Rico is the jurisdiction in the United States where hospitals,	
	doctors, and health providers are paid the least."	
	"We receive less money from Medicare than the states and the Virgin	
	Islands."	
	"It receives less funds, although those who work contribute the same."	
Do you believe key	"Physicians reimbursements are less in Puerto Rico"	
disparities or	"Provider reimbursement is lower for the same service. Some remote	

challenges exist in	patient monitoring codes are not covered in Puerto Rico, but they are in the	
Puerto Rico regarding	US and USVI"	
Medicare and Medicaid	"Although Puerto Rico must indeed be more efficient in the use of the	
funding?	funds it receives, the increase in payments to health providers cannot	
	increase without greater funds"	
Do you believe these	"Better and more options could be available if there were additional	
potential disparities	sources of funds"	
impact the healthcare	"Limited reimbursement forces physicians to leave the Island"	
system in Puerto Rico,	"Services are restricted because of underpayment"	
particularly in terms of	"Yes, for the following reasons: 1. Once doctors graduate, they go to the	
accessibility and	United States in search of better salaries. 2. The money paid to hospitals is	
quality of care?	not enough to maintain their operation, for this reason, dozens of	
	"Hospitals have closed operations in recent years. 3. The money allocated	
	by the federal government for medical services to patients is not enough,	
	causing them to have fewer benefits."	
	"I have worked in other states and in Puerto Rico and accessibility to	
	services, specialists, studies, medications, etc. is incredibly limited on the	
	island."	
	"The less funds, the more expensive the services are and the less there is	
	access."	
Do you know if	"Puerto Rico receives a block grant and funding levels are not the same. It	

specific policies or	is not a matter of the patient, but one where the service is provided FL,
regulations exist, that	NY, vs Puerto Rico."
might lead to the	"The federal government has metrics by which it allocates funds to the
unequal distribution of	territories and the states, which are generally based on the cost of living in
federal healthcare	the state; however, in Puerto Rico that metric has not been reviewed for
funding to Puerto Rico	dozens of years."
compared to other U.S.	"What exists is the public policy of Congress"
territories or States?	
Do you believe more	"Funding amounts should be revised, Puerto Rico has a large number of
steps could be taken at	participants that would benefit if fund pairing was at the correct level"
the federal level to	"Our current political situation in which we are a territory of the United
address these	States puts us in a disadvantageous position relative to other states because
disparities and ensure	we do not have a say in forming policies"
equitable healthcare	"The federal legislature must carry out a study of how much is contributed
funding for Puerto	to Medicare and how much is invested and compare it with US states and
Rico?	other territories"
	"Parity in funding for Medicare and Medicaid"

That you are aware of,	"Puerto Rico health care system is declining, many physicians are leaving	
have there been any	the island, patients' options are limited, and technology-wise the Island	
notable successes	lacks interoperability and patient data is not shared across the health	
within Puerto Rico's	ecosystem"	
healthcare system	"Services provided by FQHCs or response after Hurricane Maria even	
despite these funding	with lower funding show that many positive outcomes are due to human	
discrepancies?	resources, even with limited funding."	
	"We continue to provide Medicaid health plans even though funds are not	
	sufficient."	
	"Services are provided despite limited reimbursement"	
	"Despite these differences, here in Puerto Rico, these Medicaid and	
	Medicare funds have been used to give patients a private medical plan,	
	which has increased the benefits and services that patients previously	
	obtained. In the past, there was a system of second-class healthcare for the	
	medically indigent, and today those patients have a medical plan which	
	gives them a free selection of doctors and services."	
	"In the pandemic"	
	"The level of membership in Medicare Advantage plans is the highest in	
	the USA"	
Looking ahead, do you	"Hospitals in Puerto Rico are under dire financial strain. There are SDoH	
believe there are	opportunities and more emphasis should be given to Remote Patient	
pressing priorities or	Monitoring as well as telemedicine"	

opportunities for	"Puerto Rico senior community continues to rise and they deserve better
improving Medicare	health options"
and Medicaid funding	"More benefits are needed for the patient population"
equity in Puerto Rico?	"It is a political problem in which a solution will only be found if we
	resolve our political status as a country and have a voice and vote in those
	decisions that affect us"
	"It depends on the will of federal legislators"
	"Puerto Rico has to manage to convey the message of the reality of the
	medically indigent (Medicaid and Platinum) and elderly (Medicare)
	population to justify an increase in the funds it receives. In addition, the
	reality of low payments to health providers in comparison with the states."
Do you believe there is	"Puerto Rico has a large population as compared to many other states.
a reason why Puerto	However, Puerto Rico has no voting power and this limits the probability
Rico receives less	of getting heard or power to get funding assignments. USVI has a smaller
federal funds compared	population, a fraction, so money for USVI is far less and does not raise
to other states and	political complaints by other states"
territories?	"Discrimination against our government's status of incorporated territory/
	colony"
	"Puerto Rico is a territory"
	"We are not a state"
	"According to the federal government, it is because we do not pay federal
	taxes."

	"Because Puerto Rico does not have a presidential vote or by the Senate or Congress, the United States government does not treat the country with equality in the allocation of funds"  "Discrimination"
Is there any other	"Hospital Institution's reimbursement is at the same rates as mainland
information you feel	hospitals!"
that is relevant to the	"The Medicaid enrollment process should be more accessible to all
survey that you would	physicians"
like to mention?	"The President elected and his party and their support can make a
	difference"
	"Additional audits on the proper use of funds should be implemented"
	"Accessibility to healthcare for all"
	"The current low level of allocations to Puerto Rico is leading insurers to
	review benefits and low compensation to medical providers"
	"Young generations must educate themselves on the issue and demand a
	quality health system"
	"The level of unemployment and poverty means that more people need
	government insurance"

Figure 11. The following chart shows the optional verbatims answered by participants after each question, as well as the last question that asked for additional information participants felt was necessary and/or contributed to the study.

### **Discussion and Analysis**

#### **Discussion of Results**

This study aimed to investigate if the healthcare system in Puerto Rico was underfunded compared to other U.S. jurisdictions. After analyzing the results the study obtained, it was concluded that the vast majority of healthcare leaders in Puerto Rico believe the system's funds are not sufficient. This notion is supported by the results obtained in Figure 3 which highlighted that 96% of participants believed that Medicare and Medicaid Advantage funding is behind other U.S. States and territories. Furthermore, 99% believed that these disparities between Puerto Rico's funding compared to other U.S. districts impact Puerto Rico's healthcare system in terms of accessibility and quality of care.

However, an important finding seen in Figure 8 that is worth noting, is that when participants were asked if they believed there has been improvement in recent years within Puerto Rico's healthcare system, 48% believed that there has been improvement, 35% believe there hasn't been improvement while the rest of participants were not sure. On the other hand, although the majority believed there has been an improvement when participants were later asked if they believed there are pressing concerns for Medicare and Medicaid funding equity in Puerto Rico, Figure 9 shows that 92% of participants believe there are pressing concerns in the future. Furthermore, when asked if there was a reason why Puerto Rico received less funding for Medicaid and Medicare Advantage programs than other states and territories, Figure 10 portrays that 62% supported the notion that there are reasons for these discrepancies in funding.

As seen in Figure 11, which incorporates Verbatims, participants stated many factors such as Puerto Rico having no voting power, which limits the impact they have on the Federal Government, others felt that it was due to discrimination due to Puerto Rico being a state or colony, and lastly another participant stated that it could be since Puerto Rico does not pay certain federal taxes.

All these results correlate to the same idea that the majority of healthcare leaders deem to be true, which is that Puerto Rico's Medicaid and Medicare Advantage program funds are not sufficient, especially regarding other U.S. jurisdictions.

#### Conclusion

The results and analysis of this study suggest that my initial hypothesis was correct. The data has allowed for the conclusion that the vast majority of healthcare leaders and experts in Puerto Rico do support the notion that the Medicaid and Medicare Advantage programs are extremely underfunded. Additionally, most healthcare leaders also believe that changes should be made concerning MA's funding for Puerto Rico, as they believe that we are heavily underfunded compared to other U.S. jurisdictions. A call to action is needed. The less funding Puerto Rico receives for its MA programs, the fewer people MA can cover. Ultimately, the only solution for this problem, to ensure access to quality care for all of Puerto Rico's people, is to increase the federal funding the Island receives for its MA programs.

#### Limitations

Limitations in the study come in when selecting participants. As previously stated in the Method Limitations, the most well-informed job that directly correlates to the healthcare system

is doctors. As was previously concluded, the lack of doctors on the Island limits the number of potential participant doctors that I could invite, limiting the total amount of participants. Furthermore, limitations also came in regarding potentially biased answers. Puerto Rico's sociopolitical status and relationship with the United States is a complex situation that possibly currently divides the island within political parties, as some are happy with the current situation and would like to remain a commonwealth, while others believe that what is best for the island, while lastly the vast majority of the island's population as seen through the electoral process for many years, believe the best option for the Island is to become a state. This led to many Verbatims not necessarily contributing to the question provided and including personal and objective responses, such as the solution is for Puerto Rico to become a state or that these problems would not occur if the island was independent. Regardless if these notions would be true or not, or what my personal opinion is concerning these potentially biased verbatims, the objective of my research is to highlight the lack of federal funds Puerto Rico receives for its Medicaid and Medicare Advantage programs and to expand this discrepancy to turn it into public knowledge so that this problem can eventually find a solution to provide access to quality care for all of Puerto Rico's citizens. Although there is no certainty that political beliefs stood in the way of some participants' answers, the potential bias could be considered a strong limitation to the accuracy of the study.

#### **Implications**

The implications of this research lie within the impact Puerto Rico's underfunded

Medicaid and Medicare programs have on access to quality care. The real-world implications for

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this research are that many of Puerto Rico's demographic situations such as its rapidly aging population, high poverty rates, and the prevalence of health conditions lead to many of its people being eligible and requiring Medicaid and Medicare Advantage programs to have access to quality care. However, the lack of federal funding leads to not all people being granted MA programs due to there not being enough funds for everybody. Furthermore, the implications of this research are not only limited to creating awareness about this federal funding discrepancy, but also ideally leading to real-world solutions. The more people understand this topic, the more they will be able to acknowledge that this lack of funding is having detrimental effects on Puerto Rico's people.

#### **Future Research**

Regarding future research, I would like to address the healthcare system as a very large branch, and unfortunately for Puerto Rico, underfunding can be seen in many areas. For effectiveness and efficiency in my research, I narrowed it down and specifically only researched the lack of Medicaid and Medicare funding received. However, other areas of research lie within funding disparities in hospital funding as well. As many participants mentioned in their verbatims, the lack of hospital funding in Puerto Rico is a very detrimental factor on the island's population as it furthermore limits access to quality care and is one of the leading factors for the lack of doctors on the island as doctors would not only have more economic opportunities outside the island, particularly in the United States but would have access to better facilities as well.

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### Appendix A: Choosing the Preferred Language

Choose your preferred language. Escoge el idioma preferido. *
○ English
○ Spanish
Annual Professional France
Appendix B: Consent Form
Informed Consent (English)
Your participation in this study is voluntary. It is up to you to decide whether to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form.  After you sign the consent form, you are still free to withdraw at any time and without giving a reason. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.
I have read this Consent and Authorization form *
O Yes
○ No
I agree to take part in this study as a research participant.* *  By PROCEEDING, I affirm that I am informed on the topic of healthcare.
O Yes
○ No
Appendix C: Employment that Correlates to the Healthcare System
Job Title *
Your answer
Workplace (optional but suggested)
Your answer

### **Appendix D: The Questionnaire**

Is Puerto Rico behind in the current state of Medicare and Medicaid funding compared to other U.S. states and territories?	<ul> <li>3. Do you believe these potential disparities impact the healthcare system in</li> <li>Puerto Rico, particularly in terms of accessibility and quality of care?</li> </ul>
○ Yes	Yes
○ No	○ No
○ Not sure	○ Not sure
Not sale	
	Evaluin your anguar (antional)
Explain your answer (optional)	Explain your answer (optional)
Your answer	Your answer
Do you believe key disparities or challenges exist in Puerto Rico regarding Medicare and Medicaid funding?	4. Do you know if specific policies or regulations exist, that might lead to the unequal distribution of federal healthcare funding to Puerto Rico compared to other U.S. territories or States?
○ Yes	Yes
○ No	O No
○ Not sure	Not Sure
Explain your answer (optional)	Explain your answer (optional)
Your answer	Your answer
Do you believe more steps could be taken at the federal level to address these      disparities and ensure equitable healthcare funding for Puerto Rico?	7. Looking ahead, do you believe there are pressing priorities or opportunities for * improving Medicare and Medicaid funding equity in Puerto Rico?
○ Yes	○ Yes
○ No	○ No
○ Not sure	○ Not sure
If answered yes, what steps would you suggest? (optional).	If answered yes, explain how. (optional)
Your answer	Your answer
That you are aware of, have there been any notable successes within Puerto     Rico's healthcare system despite these funding discrepancies?	8. Do you believe there is a reason why Puerto Rico receives less federal funds compared to other states and territories?
○ Yes	Yes
○ No	O No
○ Not sure	○ Not sure
If answered yes, explain how (optional).	Explain your previous answer (optional)
Your answer	Your answer

### **Appendix E: Final thoughts:**

9. Is there any other information you feel that is relevant to the survey that you would like to mention?
Your answer