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Understanding cultural aspects is important in driving patient outcomes; not just the drugs you use, but how you interact with patients

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Dr David Lenihan, president of Ponce Health Sciences University (PHSU) in Puerto Rico, highlights the crucial role the institution plays in tackling the cultural deficit in healthcare on the US mainland as the Hispanic population increases. Lenihan also touches on how Puerto Rico can help counter the shortage of physicians on the island and create world-class, culturally competent doctors. He also shares his ambition to make PHSU among the largest medical schools in the US and a leading academic healthcare centre.

When we met you in 2015, you highlighted the fact there is a cultural deficit in healthcare when it comes to treating Latino patients. Four years later, how has the situation changed?

The situation has only worsened since then because the emigration pattern from Central and South America to the United States has increased. The difference between four years ago and today is that more Hispanic immigrants choose to settle in middle America. Those areas are ill-equipped right

now to treat Spanish-speaking patients. In states like Colorado, Nebraska, Kansas and Missouri, more than 90 percent of doctors are Caucasian or Indian. This lack of cultural competency costs the US healthcare system hundreds of billions of dollars each year. It is estimated that this cultural deficit represents 5 to 10 percent of the USD 2.3 trillion yearly healthcare budget as it negatively impacts patient satisfaction, recidivism â?? how often the patient comes back into the healthcare system â?? and treatment outcomes. Being able to communicate and interact effectively with patients, not only verbally but also on a deeper cultural level, boosts patient satisfaction, lowers recidivism and enhances patient outcomes by improving treatment adherence and compliance. As a matter of example, â??onceâ?• means â??one timeâ?• in English but â??elevenâ?• in Spanish. If a patient misunderstands his doctorâ??s instructions, it can lead to malpractice and compliance issues. Beyond words, understanding how to interact with patients is crucial. For instance, Hispanic people interact more through touch than Irish Catholics like me. Understanding these cultural aspects is important in driving patient outcomes; not just the drugs you use, but how you interact with patients. When you can interact with the patients, theyâ??re more likely to follow your instructions and take the appropriate medication.

Moreover, in Hispanic families who have recently moved to America, while the parents might not speak English, the children do. This situation can create psychological issues for the children, and lead to problems at school. We set up programs to place our graduates into these communities. As they can speak English and Spanish, they understand the cultural aspects and can help in the development of these childrenâ??s psychology.

That is the reason why Puerto Rico is a lot more significant than most people realize. In fact, I would say Puerto Rico is probably the most important jurisdiction in the United States when it comes to fixing this issue as the island produces about 40 percent of Spanish-speaking physicians. That is why we invest so much money here. PHSU and the other three medical schools â?? University of Puerto Rico, Universidad Central de Caribe and San Juan Bautista â?? produce the physicians with those skill sets. Right now, many graduates are going to practice in Miami, New York, LA or Austin. But what we are seeing is that health systems in the Midwest are paying about 25 to 30 percent more for our graduates as they recognize the value of those skill sets. By employing Puerto Rican physicians, they can not only improve treatment outcomes and satisfaction of Hispanic patients but also reduce costs as they no longer need translators.

While Puerto Rico clearly has a crucial role to play in fixing this cultural deficit in healthcare on the US mainland, doctors are also needed here. How does PHSU help tackle the shortage of physicians on the island?

This is a recurring worry from authorities. In my opinion, we have to stop thinking that the mainland is stealing Puerto Rican doctors. Our graduates are American citizens and have the right to go practice anywhere in the United States. A resident position after graduation pays about USD 50,000 per year in Puerto Rico compared to USD 80,000 in Miami. For a graduate student who has to repay his student debt, the choice is easily made. Instead, the authorities need to figure out how to attract more people down to the island. This is an area where the government has it right, with the recent introduction of financial incentives for doctors. Thanks to these incentives, we are now seeing doctors with extensive clinical experience in the US mainland coming back to the island.

Our university is also contributing to solving the problem by increasing the number of graduates. We know that about half of our graduates choose to leave the island while the other half stays. We received permission to increase our class size from 90 to 150 students, which is by no means an easy feat. Once the transformation is complete, we will be the largest medical school in Puerto Rico

by a strong margin. Our of the 60 additional students who graduate each year from Ponce, 30 of them are going to stay on the island. Meanwhile, every doctor on the island generates on average USD 2 million of economic output every year. As a result, increasing our class size by 60 students will lead to an additional USD 60 million for the Puerto Rican economy every year. This is how we are contributing to solving the problem.

Overall, efforts made by the government and PHSU are producing a synergistic effect: we are producing more physicians, half of them stay on the island, and incentives attract those who left. This is how we can solve shortages together. We are providing the education and the government is doing its part by providing tax incentives.

While tax incentives are certainly helping, there remain structural issues in the Puerto Rican healthcare system which are contributing to the shortage. How can Puerto Rico overcome these challenges?

No one is moving to Puerto Rico to make money in the medical profession. It is a capitated healthcare system. In other words, the system only has a set amount of federal funding to finance all healthcare services for the year, regardless of the healthcare burden. If the healthcare burden exceeds the amount, the system has to eat the extra cost. In comparison, in the other 50 states, physicians can bill fee for service. When a physician in Mississippi performs a service, he or she bills the Center for Medicaid and Medicare Services (CMS) regional office in Atlanta and gets paid for the service.

However, there is more to it than just money. Most doctors went into healthcare because they want to help people. Let me give you an example. After the hurricane devasted the island, we did not see FEMA for the next 5 weeks. Without access to electricity and communication, the island was completely isolated from the rest of the world. We only received AM radio stations from the Dominican Republic. The problem is that in order to give a drug, you need to get permission from the DEA. But if internet connection is down, you cannot receive those authorizations. As a result, we could not legally distribute the drugs we had. Moreover, by law, insulin cannot be stored with other drugs. However, we only had one generator and one fridge. Because the medical staff was worried about breaking the law, I had to make the call and authorize them to put insulin on one shelf and use the other shelves for other drugs. We had to make decisions that were against the law theoretically, but we had no other choice. We also flew doctors and supplies from Miami, acting as the disaster relief hub for the southern part of the island. When these doctors go out and realize the type of need that is out there, it is not about the money anymore. Of course, they need to pay back their student loan. But once that is done, they realize that treating this population is really important. The devastation from the hurricane was massive, but it had the positive effect of making healthcare professionals wanting to come back and provide service to the community.

What do you think should be done to improve the quality of healthcare on the island?

All the medical schools are LCME accredited, so the quality of education is here, the skills sets are here. Moreover, as I said, we are starting to see experienced doctors coming back. In my opinion, what is lacking is the capital expenditure necessary to upgrade the healthcare infrastructure. Now that disaster recovery funds are starting to flow to the island, we can start upgrading facilities. There is no short-term solution, this will take a decade. You need a vision, and the backbone to stay the course.

Ponce Health Science University is making large investments in infrastructure. What is your vision behind these investments?

In the next few years, we will be investing a total of a quarter of a billion dollars. Our ambition is to transform Ponce into an academic healthcare centre. We are building a bridge to the hospital in order to link it to the medical school. We are also investing USD 80 million to build a brand-new campus inspired by Trinity College in Cambridge. The campus will have a large internal courtyard, big classrooms and a 1500-seat auditorium with a view to the mountains and the ocean on each side. The goal is to create an environment where the pharmaceutical and medical technology industry can gather and have all the necessary tools to test their innovations. For instance, device manufacturers will be able to use cadaveric material to test new implants. In terms of biopharmaceuticals, one of the most attractive assets we possess is the largest genomic database of all tumours in Hispanic patients, build in collaboration with the Orion network and the Moffit Cancer Center in Tampa, Florida, for the last ten years.

Moreover, the new facilities will be designed to sustain a category 5 hurricane and have their own power supply, water reclamation, satellite internet, shelter, and so on.

Finally, we are building another medical school in San Luis. When the two new facilities are operational, we will be among the largest medical schools in the United States.

What makes Ponce University different from other medical universities?

In the memoirs from the dean of the University of Paris in the 15th century, he wrote about students complaining about tuition being too high, exams being too hard and professors not being interesting enough. These are the same complaints universities deal with 600 years later. At the time, they were trying to get more people from the lower classes into the medical profession. What they did is to make it possible for anyone to enrol in the first year of medical school, but only the top students would be able to go on to the second year. This inspired me to implement a similar approach ten years ago.

My son is currently in medical school. He is a smart kid, was valedictorian in high school and is now top of his class in med school. But his success is also due to the fact I was able to provide him with the necessary resources, not only financial but also a supportive environment for learning. If we believe that intelligence is evenly distributed across society, then access to medical school comes down to resources. There is no doubt that a lot of kids in lower socioeconomic groups are just as smart as my son, but unfortunately, have not had the same opportunities. How do we find and attract those kids to go into medicine? The reason it is important is that those students are more likely to practice in areas of need. I am not looking for the students with a 4.0 GPA. These students should go to Harvard or Yale. I am looking for the students who went to college and got three Cs on freshman year because they were put in biology, chemistry and calculus classes with kids like my son who had already taken those courses. In a traditional medical school, if a student scored three Cs during freshman year, no one will even look at his or her application.

In order to fix this situation, we have created a masterâ??s program where we take almost everybody in and run them through the first year of med school. This approach has been extremely successful. About 30 percent of the students we welcome got turned down by every medical school they applied for, but all of them pass the medical board exam. They just needed a chance. Most of them come from households making less than USD 30,000 per year. By giving them a chance, we

not only create a doctor who is likely to practice in areas of high medical need, but we also pull an entire family out of the poverty trap. This is what makes us different, and we are very proud of that.

You have been talking about cultural competency for the last decade. What drives your passion to put the issue in the spotlight?

In the history of medicine, there were three defining paradigm shifts. In the time of Hippocrates about 2500 years ago, if you wanted to be a doctor, you learned prognosis reading papyri. About 1000 years later, in Roman times, Claudius Galen gained much experience of treating wounds as the chief physician to the gladiator school in Pergamum, writing prolifically about the subject. After Galen, until the 17th century, medicine was considered an exhausted subject. However, in the 1600s, around the same time Gutenberg invented the printing press, Andreas Vesalius, often referred to as the founder of modern human anatomy, realized than Galen was wrong about a lot of things as Greek and Roman taboo had compelled his second-century predecessor to only dissect animals. Vesalius authored one of the most influential books on human anatomy, *De humani corporis fabrica*, in which he showed the errors of Galen. He would lecture on the topic at university halls. The way we teach medicine has not changed much since then: teachers lecture in front of a classroom and then students take an exam. At PHSU, this is not the way we do things. Instead, students watch lectures online and then attend classes where they work on clinical problems based on cultural competency. Our all system of education is different than other medical schools. By spending time teaching about the cultural aspects of healthcare and how to effectively communicate with patients, our university can contribute to yielding a large improvement in patient outcomes. If I can standardize this system across the world, I could be the person historians of medicine write about in a thousand years. While I realize this may sound egotistical, this is what drives me.

Where would you like to see Ponce Health Science University when we come back in five years?

Next year, our masterâ??s program will be available in ten locations across the United States. In five years, hopefully, we will have five to ten schools around the world running our curriculum. By that time, we should be among the largest medical schools in the United States.

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