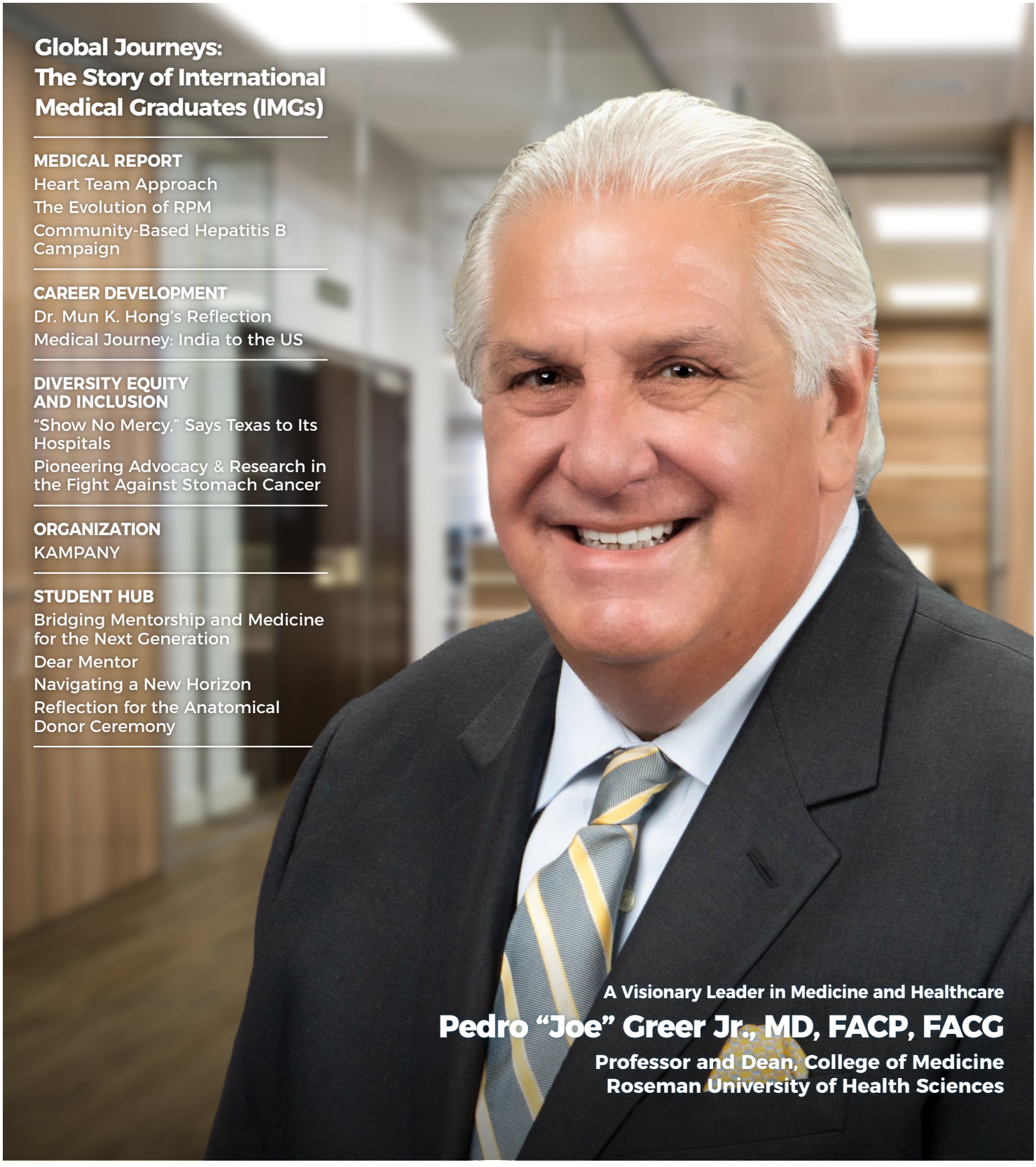
NexBioHealth

Shaping Futures

February 2025 | ISSUE 2

Global Journeys: The Story of International Medical Graduates (IMGs)



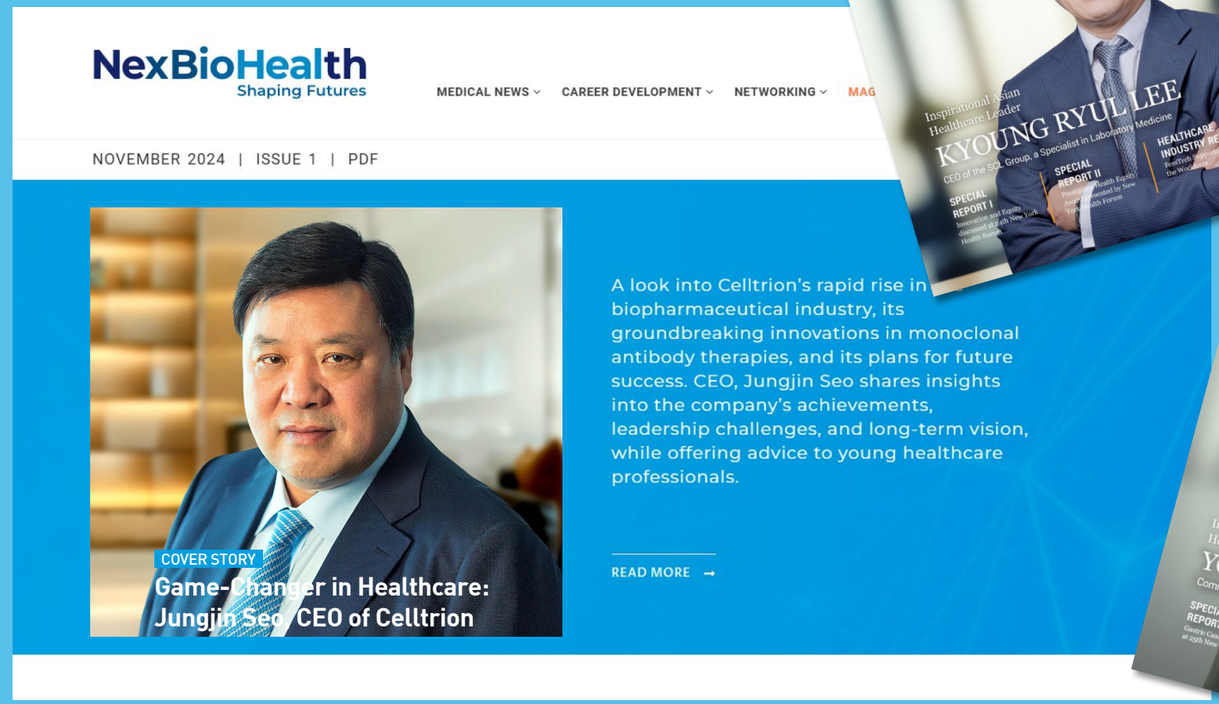
A Visionary Leader in Medicine and Healthcare

Pedro "Joe" Greer Jr., MD, FACP, FACG

Professor and Dean, College of Medicine
Roseman University of Health Sciences

NexBioHealth: What Makes It Unique

NexBioHealth is a global magazine dedicated to empowering and connecting medical students, residents, and budding physicians worldwide. The magazine is a dynamic platform designed to foster global networking, knowledge sharing, research collaboration, and professional growth for young healthcare professionals.



Vision

NexBioHealth aims to foster an international community where future leaders in medicine can learn, collaborate, and grow together. Building on the 10-year legacy of the World Asian Medical Journal (WAMJ), NexBioHealth expands its scope to engage a broader, global audience, creating a platform for medical professionals worldwide.

Key Features

01. Career Development & Mentorship:
This section offers guidance and mentoring to help young medical professionals navigate their career paths. It includes contributions from experienced physicians and focuses on professional growth, education, and research opportunities.

02. Diversity, Equity, and Inclusion (DEI):
Focused on addressing health equity and global health, this section highlights innovations in public health, healthcare delivery, and international healthcare innovations. Through in-depth articles and interviews with global health leaders, we aim to promote discussions around equitable healthcare access and inclusion worldwide.

03. Global Networking for Physicians:
NexBioHealth connects medical students, residents, and physicians worldwide by featuring leading organizations, providing networking opportunities, and facilitating international collaborations.

Conferences: This section highlights important medical conferences and events around the world, providing readers with opportunities for learning and professional development.

04. Medical Report & Healthcare Updates:
A comprehensive section delivering the latest news in medicine and healthcare, covering advancements, policy changes, and industry trends.

05. Student and Resident Engagement:
NexBioHealth is committed to representing the interests of medical students and residents through the formation of the Student Advisory Committee (SAC). These committees help shape the magazine's content, organize events, and promote mentorship opportunities.

NexBioHealth is more than just a publication—it's a vibrant community and resource hub for the next generation of medical professionals. By bringing together students, residents, and physicians from across the globe, NexBioHealth is dedicated to supporting the growth and development of future leaders in the medical field.

Our Editorial Board

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The NexBioHealth Editorial Board comprises a diverse group of physicians and healthcare professionals from various specialties who are recognized as thought leaders with innovative ideas and notable accomplishments.

This distinguished group is united by a shared mission: to make NexBioHealth a unique platform for addressing the most pressing issues in medicine and healthcare today and into the future. Their goal is to nurture, motivate, and inspire the next generation of healthcare professionals.

Diverse Expertise

Unlike the typical editorial boards of academic journals, the NexBioHealth Editorial Board is intentionally diverse. It includes physicians from major university settings, private practices, and community health centers, not only in the United States but also globally. This diversity ensures that the magazine reflects a wide range of perspectives and experiences, making it relevant and impactful for a global audience.

Interdisciplinary Approach

In addition to physicians, the board includes prominent individuals from the scientific, legal, health industry, and public health fields. This interdisciplinary approach is crucial for interpreting and providing insights into medicine and healthcare from unbiased and diverse viewpoints. By integrating expertise from these various fields, NexBioHealth is positioned to offer comprehensive and balanced coverage of the issues that matter most to healthcare professionals and the communities they serve.

Supporting Young Minds:

To further enrich the content and ensure it resonates with the emerging generation of medical professionals, NexBioHealth has established two additional boards:

Student Advisory Committee (SAC)

- The SAC is designed to represent the interests and perspectives of medical students. Members provide feedback on articles, suggest relevant topics, and help tailor the content to meet their peers' needs. They also liaise between NexBioHealth and medical schools, assisting with student outreach and event coordination. Their involvement ensures that NexBioHealth remains a vital resource for students, providing content that is both educational and inspiring.

Resident Physicians Advisory Committee (RPAC)

- The RPAC represents residents across all specialties, offering valuable insights into the challenges and opportunities faced by physicians in training. The RPAC helps guide the magazine's content by contributing articles, organizing networking opportunities, and supporting mentorship programs. Their participation ensures that the magazine addresses the specific needs of residents, helping them navigate their careers with confidence.

A Growing and Evolving Board:

Our editorial board is in the beginning phase and continues to grow, inviting more great minds to join us in our mission. As we expand, we are committed to bringing together a broader range of expertise and perspectives to enhance the magazine's quality and impact. We seek thought leaders and innovators who share our vision to join us in making NexBioHealth a powerful voice in medicine and healthcare.

A Truly Unique Platform:

NexBioHealth's combination of a diverse, interdisciplinary editorial board and the inclusion of the SAC and RPAC makes it a truly unique platform. It is a magazine that not only raises important issues in medicine and healthcare but also fosters a collaborative environment where young minds are nurtured, motivated, and inspired.

NexBioHealth is committed to being more than just a publication—it is a community and a resource for those who aspire to lead and innovate in the healthcare field. Through the collective efforts of its editorial board, students, and residents, NexBioHealth aims to be the best platform for shaping the future of medicine and healthcare.

A Visionary Leader in Medicine and Health Care: Dr. Pedro “Joe” Greer

Dr. Pedro “Joe” Greer, founding dean of Roseman University College of Medicine, envisions a medical school focused on health equity, compassion, and Social Determinants of Health. An IMG and advocate for underserved populations, his transformative work, including founding clinics and shaping health policy, earned him the Presidential Medal of Freedom.

Heart Team Approach

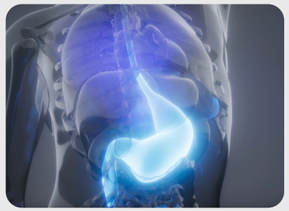
Discover how the Heart Team Approach revolutionizes cardiac care, fostering collaboration for personalized, multidisciplinary solutions and improved outcomes.

The Evolution of RPM: Societal Drivers, Technology, Economics, and Opportunities

Revolutionizing healthcare: Discover how Remote Patient Monitoring (RPM) bridges gaps in care, empowers patients, and transforms clinical outcomes.

"Show No Mercy Says," Texas to Its Hospitals

Professor Arthur Caplan examines Texas' healthcare policies, addressing ethical dilemmas, public health challenges, and their impact on patient rights.

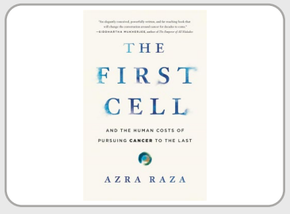


Debbie's Dream Foundation: Pioneering Advocacy and Research in the Fight Against Stomach Cancer

Andrea Eidelman, CEO of DDF, showcases the organization's mission to combat stomach cancer through advocacy, research, and patient empowerment.

India to US Medicine

Dr. Thiru Muniraj reflects on his inspiring journey from India to the U.S., blending personal resilience with pioneering advancements in advanced endoscopy.



The First Cell by Azra Raza, MD

Dr. Azra Raza's The First Cell challenges conventional cancer treatment, advocating for prevention, early detection, and compassionate patient-centered care.

In This Issue

From the Publisher

Chul S. Hyun, MD, PhD, MPH

Div. of Digestive Dis.,
Yale School of Medicine

Happy New Year! As we step into 2025, it is my pleasure to present the first issue of the year for NexBioHealth, setting the tone for a year of innovation, progress, and meaningful conversations in the world of healthcare and medicine.

This issue celebrates the remarkable contributions of International Medical Graduates (IMGs) in the United States. Their expertise, resilience, and cultural competence enhance patient care and foster innovation across the healthcare landscape. IMGs not only fill critical gaps in our healthcare system but also bring unique perspectives that enrich the profession globally.

We are honored to feature Dr. Joe Greer, a visionary leader of Cuban descent, on this issue's cover. As an IMG, Dr. Greer has dedicated his life to advancing health equity, medical education, and patient care. His current aspiration to establish a new medical school underscores his commitment to addressing pressing healthcare challenges and creating opportunities for future generations of physicians. Dr. Greer's journey exemplifies leadership, determination, and inspiration.

In addition, we highlight Dr. Thiruvengadam Muniraj's extraordinary path from India to becoming a leader in advanced and bariatric endoscopy at Yale. His story is a testament to the resilience and impact of IMGs in shaping the future of medicine.

This edition offers a wealth of compelling content, including insights into interventional cardiology, community health initiatives, and the transformative potential of remote patient monitoring. The expanding Career Development and Student Hub sections continue to nurture the next generation of healthcare leaders, offering fresh perspectives and fostering vibrant discussions.

As NexBioHealth evolves, so does our editorial board, welcoming internationally renowned leaders who bring expertise and mentorship to students and professionals alike. This expansion underscores our commitment to a dynamic and inclusive platform that bridges experience with innovation.

We hope you enjoy this edition and find inspiration in the stories and insights it offers. Thank you for your continued support, and we look forward to bringing you more impactful themes and stories throughout the year.

From the Editor-in-Chief

Joseph P. McMenamin, MD, JD, FCLM

W. Medical Strategy Group,
Christian & Barton Group, LLP

In literature and in art, a "theme" is an idea that recurs in or pervades the work. A theme might be perseverance, or revenge, or amor vincit omnia, love conquers all. In a periodical such as our journal, a "theme issue" includes works with some common denominator such as a topic, or some characteristic of the writers. Often, this approach allows a more penetrating analysis of a topic, such as health and migration, for example.

Decades ago, the Medical Society of Virginia published a journal called Virginia Medical Quarterly. VMQ did not survive the rise of electronic newsletters, but for its time it was an effective mechanism for the Society to serve its members and to promote its ideas. I had the honor to serve as the medico-legal editor, so I was to write pieces on legal topics relevant to doctors. Besides my contribution, an issue of VMQ would typically include a couple of articles on clinical topics, one or two on political issues affecting medical practice in the Commonwealth, at least one on some aspect of the business of medicine, and often a philosophical reflection from a graybeard at one of our academic centers or in practice. I enjoyed the publication; I think most readers did.

One day in 1996 editor Edwin Kendig, MD, a retired pediatrician and a lovely man, brought in all the Editorial Board members for a meeting in Richmond. Our readers may have difficulty believing it, but that was how business was conducted in those days. No one had a computer or a cell phone; Zoom would have been seen as science fiction. Dr. Kendig announced that we would publish a theme issue--on telemedicine. I spoke up: "Great. What's telemedicine?" I had never heard the word. Dr. Kendig explained the concept, briefly, and set us to work.

I began to read about this new and, to me at the time, revolutionary idea. I discovered that the field was chock-full of challenging legal issues for few of which had reliable answers. I became intrigued, and my curiosity grew. Today, digital health is one of the main pillars of my practice; Dr. Kendig's decision changed my life.

We make no prediction that our new issue will have the same effect on you. We do think, though, that we have assembled a coterie of thoughtful contributors and talented writers, to illuminate one of the most noteworthy features of our healthcare system: the centrality of IMGs. It is difficult to imagine that we could serve the public without them, in fact. It seems fitting that in this nation of immigrants, NexBioHealth should highlight these professionals, who bring so much to American healthcare.

Connect with Future Medical Leaders Worldwide!

www.NexBioHealth.org

We invite you to become part of a vibrant community of medical professionals, where experienced leaders and emerging physicians from around the world collaborate, share knowledge, and drive the future of healthcare. This global network fosters mentorship, research collaboration, and leadership development across generations, ensuring that the next wave of medical leaders is well-equipped to tackle the challenges of tomorrow.

For more information or questions email: info@nexbiohealth.org

Medical Report

Mun Hong, MD, MHCM, FACC, a highly esteemed interventional cardiologist, addresses one of the most pressing challenges in modern medicine—advanced cardiovascular conditions such as severe coronary artery disease, valvular abnormalities, and atrial fibrillation. This pivotal perspective highlights the importance of the "Heart Team" approach, emphasizing collaboration between cardiac surgeons and interventional cardiologists to provide patients with the most effective and tailored treatments. By exploring the latest advancements, from transcatheter aortic valve replacement (TAVR) to hybrid procedures for atrial fibrillation, this article offers a forward-thinking framework for tackling these life-altering conditions. As one of the foremost authorities in the field, Dr. Hong presents a compelling case for multidisciplinary teamwork in the fight against complex cardiovascular diseases.

Heart Team Approach

Interventional cardiology and cardiac surgery are complementary in treating patients with advanced cardiovascular conditions- A Team Approach.

There used to be much debate regarding the superior treatment strategy for advanced cardiovascular conditions, such as severe coronary artery disease (CAD) or severe valvular abnormalities. However, recent rigorous randomized trials have shown the comparability of both cardiac surgery and interventional cardiology options for patients with these conditions. As a result, a multidisciplinary "Heart Team" approach (1) has been proposed as the ideal group effort, where both cardiac surgeons and interventional cardiologists discuss the optimal treatments for our patients and come to a consensus regarding the treatment algorithm. In addition, the preferences of the patients and their family members are sought and valued, given the equivalent benefits from either surgery or percutaneous treatment. Finally, it is unfortunately true that we do not cure any of these conditions. We are merely trying to alleviate symptoms and if possible, alter the natural history and prolong survival. Thus, when the initial treatment option fails, the other therapy could offer an alternative approach. Our role as caretakers should be to inform patients regarding different treatment options, including pros and cons, answer their questions, solicit their preference, and offer consensus treatment among the different specialists and patients.

Optimal treatment of left main CAD:

The most severe form of advanced CAD involves the left main artery. Based on coronary artery bypass surgery (CABG) versus medical therapy from decades ago (2) when coronary artery stenting had not been invented, many patients used to undergo CABG as the only treatment option for decades. However, with the development of the drug-eluting stents and the improved long-term outcome of such therapy (3), randomized trials among patients with left main (and/or severe three-vessel CAD) were performed, with results suggesting comparable outcomes as well as treatment-specific complications (4,5). On the other hand, a registry study suggested possibly lower mortality and major ischemic complications in those undergoing CABG (6). Furthermore, these studies suggest that stroke risk could be higher in CABG patients whereas the need for repeat revascularization, even with drug-eluting stents, can be higher in PCI patients. Therefore, it is important for the multidisciplinary heart team to recommend different revascularization options for different patient populations.

Optimal treatment of severe aortic stenosis:

Severe aortic stenosis (AS) has been shown to be associated with high mortality once symptoms develop (7). Until a few decades ago, surgical aortic valve replacement (SAVR) was the only effective treatment. However, there were many patients deemed too high risk for surgery and not offered this therapy, resulting in high mortality (4-year mortality rate of 45%) on "medical therapy" or untreated (8). A new form of therapy called transcatheter aortic valve replacement (TAVR) was developed initially for those at high-risk for SAVR, but since then, has been studied in randomized trials against SAVR for even "low risk" patients, suggesting either equivalent results or possibly superior to SAVR in selected patients (9). However, randomized trials enroll a selected population and thus, the two forms of proven therapy, TAVR and SAVR, need to be discussed with patients for the optimal treatment.

Treatment of other valvular conditions:

Other severe valvular conditions, such as severe mitral or tricuspid regurgitation, have also been studied with new forms of percutaneous therapy involving "clipping" of the valve leaflets (10, 11). Even though these therapies offer improved outcomes, they are not as effective as the surgical valve repair or replacement. However, continuing refinements may eventually offer an equivalent form of therapy, similar to the TAVR vs SAVR.

Optimal treatment of atrial fibrillation:

With an aging population, atrial fibrillation is becoming a more prevalent cardiac condition ("global epidemic") that can not only cause symptoms but also increase the risk of embolic stroke (12). Catheter ablation has been shown to be an effective treatment for this condition, but there are patients, who have recurrence even after successful initial ablation. For such patients, a hybrid procedure involving catheter-based and surgical ablation could be a more effective treatment (13).

Conclusion:

A Heart Team approach, a collaboration between cardiac surgery and interventional cardiology, can offer the most appropriate treatment option for patients with all forms of advanced cardiovascular conditions.

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Mun K. Hong, MD, MHCM, FACC

Cardiology Bassett Medical Center Cooperstown, NY

Mun K. Hong, MD, FACC, is a nationally recognized interventional cardiologist and was the inaugural Chief of Cardiovascular Services at Bassett Healthcare Network.

Previously, he served as Chairman of Cardiology at MedStar Southern Maryland Hospital and Director of Interventional Cardiology at Mount Sinai St.

Luke's in Manhattan. Dr. Hong is renowned for advancing interventional cardiology through his research, with over 100 peer-reviewed publications.

A graduate of Johns Hopkins University School of Medicine, he completed his residency at Johns Hopkins and fellowship at Georgetown University and Washington Hospital Center.

Medical Report

Chet Thaker, an entrepreneur with a focus on utilizing technology to solve complex problems, reflects on the rapidly changing landscape of medicine and healthcare. With extensive experience in telecommunications and enterprise asset management, he offers a unique perspective on how Remote Patient Monitoring (RPM) is reshaping clinical practice. His expertise underscores the significance and utility of RPM in modern medicine, providing insights into its transformative potential for enhancing patient care and adapting to evolving challenges.

The Evolution of RPM: Societal Drivers, Technology, Economics, and Opportunities

The Covid-19 pandemic claimed 1.1m American lives (1 out of 331). On January 11, 2022, the 7-day average infection levels peaked at 794,867(1). The hospital systems were overwhelmed, the caregivers (doctors and nurses) were in short supply... and utterly exhausted! A fear of mortal hospital infections ruled our lives then. Caring for the patients at home therefore, not in the hospital, became an imperative. These were the recent drivers for the enthusiastic adoption of Remote Patient Monitoring (RPM) in our society. This article addresses where we are with RPM today... and what forces are shaping its future evolution.

Let's begin with the unplanned nature of evolutions. Throughout the history of life on our planet, the evolutionary ascendance of an organisms was quite often a result of a beneficial mutation that bestowed a competitive advantage to that organism towards a better adaptation to its changing environment. Disadvantageous mutations caused the demise of organisms as well... only to drive the species' evolution towards those who had the beneficial mutation. To gain perspectives on RPM's evolution then, let's examine the technological changes in our societies (mutations?) to the changes in human societies including population densities and pandemics (environmental factors?).

1. What is RPM?

First, just what is RPM? Google search responds with: "Remote patient monitoring (RPM) is a healthcare practice where medical providers use digital devices, like blood pressure monitors, scales, or pulse oximeters, to continuously monitor a patient's health data outside of a traditional clinical setting, allowing them to track and manage conditions without requiring frequent in-person visits; essentially, it's a form of telehealth that uses technology to collect patient data remotely." Let's extend that definition to also include behavioral health monitoring for patients using non-medical devices such as mobile phones and iPads.

2. Societal Drivers

A. Covid-19's infectiousness overwhelmed hospitals with severely ill patients, which drove the isolation of milder infections at the patients' homes. In the pandemics to come, the vectors and the spread rates will dictate if such isolation will be necessary. But should patient isolations become necessary, RPM may well offer a lifeline to the sick.

B. ***Population declines*** result from a decrease in birth rates and greater death rates compared to pre-pandemic levels. Global Total Fertility Rate (GTFR) has halved from 5.3 per female in 1963 to 2.3 in 2021(2). Japan's depopulation is now at 0.5% per year and declining numbers are seen just about everywhere globally.

C. ***Caregiver Shortages***(3) being experienced now in the US are projected to get even more dire. ~70% of Americans who reach age 65, will need long-term care while the shortages in care workers will reach 151,000 by 2030 and 355,00 by 2040. That imbalance in the demand-and-supply for healthcare will shift the burden of caregiving to unpaid, untrained family members. They will therefore depend heavily on RPM support. Reading the tea leaves from the immigration politics of 2024, a looming loss of healthcare support workers will only exacerbate the need for RPM support.

D. ***The "Hospital at Home"***(4) (aka H@H) project was launched by Johns Hopkins School of Medicine in 1995. Research shows cost savings of 30% in the "patient care at home" model vs. the in-patient care model. These savings accumulate primarily from reduction in the overhead and re-admission rates. CMS has authorized 133 health systems (320 hospitals) in 37 states by April 2024 to offer an H@H program. Patient outcomes, so far, are decidedly better. "More than 60 different conditions, including congestive heart failure, pneumonia and chronic obstructive pulmonary disease, can be treated at home with proper monitoring and treatment protocols with a CMS waiver" according to the AHA study. RPM is at the heart of this H@H success.

E. If you are a skeptic about the extent to which hospital technology can be extended, dependably and economically all the way into patients' homes, consider what I call the "Half-way Home" approach. A company now offers electronic carts loaded with 12-lead EKGs, CMPs, troponins, ultrasound imaging, etc. to long-term care homes that house many seniors living together. This concentration of seniors, with their diverse needs, in a building enables multiple uses of the cart in that building by an experienced professional. The facility's investment in the cart is shared among many seniors, thus making it economically feasible to deliver timely care. The results are amazing: 96% decrease in unscheduled transports, ***elimination*** of 30-day readmissions, improved staff skills and facility marketing, and increased family involvement and satisfaction.(5)

3. Technology Drivers

Let's consider the technology drivers next, that fuel this RPM evolution.

A. Telecom Network is THE critical technology that enabled the successful monitoring of patient by a distance medical practitioner through communicative devices. Wireless networks have expanded their capacity with the 5th Generation (5G, soon going to 6G) technology which is now widely distributed in the US. Broadband network access, on fiber and coax in rural areas, has also increased due to huge government investments recently. To accelerate broader rural adoption of broadband, FCC's Universal Service Fund (USF) offers up to 65% annual cash funding support to the rural healthcare facilities through its RHC programs.

B. Compactions in the electronics for chips, memory, and communications (aka Moore's law) for Bluetooth via cell phones has led to a great rise in Wearables. These wearable devices now monitor a person's heart rate, pulse oximetry, steps, blood glucose, blood pressure, etc. Even the Afib monitoring devices now range around $100 and are available on Amazon! The availability and the wise monitoring of these wearables are yielding better health outcomes. Real-time ***adjustments*** of patient-connected devices, remotely by a caregiver, bring great and immediate relief to patients. (I will attest to that personally, having my sleep-medicine doctor adjust the air pressure in my CPAP machine from his office with a couple of clicks on his laptop!)

C. The rise of Artificial Intelligence (AI) is particularly promising in the remote monitoring of patient devices. A skepticism is warranted for the state of current evolution of the AI. But an outright dismissal of its value is also not wise. While we are focused on "Remote" Patient Monitoring (RPM) from a caregiver's perspective, there is also a "Local" Patient Monitoring (LPM) need. This LPM is caring about the ***untrained*** family members who must react quickly to the device alerts and make their beloved patients more comfortable. Artificial Intelligence can help make timely sense of the device readings and provide suggestions / guidance while medical practitioners are being alerted.

D. Electronic Health Records companies also have an opportunity to contribute to RPM's success. While the importance of privacy in patient records is paramount, a restricted Large Language Model (LLM), that has been trained with anonymized patient data, can be quite valuable to caregivers. The generative AI can analyze a specific patient's monitored data and offer suggestions to the caregiver on timely diagnostic or care suggestions. This type of LLM can save critical time for the caregivers, who haven't read the entire context of the care history in the patient's EHR.

4. RPM Case Studies

A. **Survey of Articles on RPM Success**: It is prudent to wonder what success record RPM has amassed over the years. A 2020 survey of RPM related articles published by ***Telemedicine and e-Health***(6) concluded: "After screening 947 records,

272 articles were included. The review showed a growing number of publications over the years, with 43.0% being published between 2015 and 2018, providing generally positive results (76.8%). The United States was responsible for 38.2% of articles. Cardiovascular disease was the topic of 47.8% of studies, whereas surgical pathologies and postoperative care represented only 2.6%. Wireless devices or smartphone apps were the most popular strategy (75.7%), with 17.6% of studies employing tele-education and 24.6% employing teleconsultation measures. Most publications were OCEBM Level of Evidence 2 (73.5%)."

B. **Distress Codes & Transfers to ICU**: Dartmouth-Hitchcock Medical Center's 2020 study(7) of RPM use, with Masimo's SafetyNet system, showed that over 10 years, RPM reduced distress codes & rescue activations by 65% and a 48% decrease in patient transfers to ICUs (=135 ICU Days). There were zero patient deaths reported.

C. **Heart Failure Care:** A meta-analysis of 41 studies(8) in Europe encompassing 16,512 patients, RPM in heart failure care showed significantly lower mortality(9) and re-hospitalization(10) where blood pressure monitoring was routinely performed. Catholic Home Care's RPM program(11) in caring for Congestive Heart Failure patients reported a 50% reduction in re-admission rates.

D. **All-Cause 30-Days Readmission Rates**: The use of RPM with skilled home health services led to reductions in readmissions as follows:

Penn Medicine(12)	73% Reduction in 30-Day All-cause readmissions (from 19.3% to 5.2%). A Study of 818 Heart Failure patients over 3 years
Frederick Health(13) (Maryland)	83% drop in readmissions
MaineHealth(14)	75% drop in readmissions
Hackensack-UMC(15)	71% drop in readmissions, 84% adherence to daily medications, and 89% adherence to daily weight recording

5. The Economics of RPM

No evolutionary assessment is complete without the economic considerations.

A. The US imports $14.9B of medical equipment annually. The impact of proposed new tariffs on the healthcare industry will be significant. Comprising approximately 10.5% of the average hospital's budget, the medical supply expenses collectively accounted for $146.9B in 2023, an increase of $6.6B over 2022, according to data from Strata Decision Technology. In some AHA estimates, the tariffs on Chinese-made semiconductors, solar cells, syringes, and needles will increase to 50% from the 25% they are at now. Tariffs on batteries, face masks, medical gloves, graphite, other critical minerals, permanent magnets, steel and aluminum products will increase to 25%; many of these items currently are at only a 7.5% tariff.

B. **RPM Penetration** in health services delivery is growing strongly. In the US, for healthcare services, McKinsey estimates $265B can shift from hospitals to home, without a reduction in quality or access. Global market for RPM devices in 2024 was USD $50.4B and is expected to grow at 19% CAGR to USD $203.7B by 2032(16).

C. **Healthcare Fraud** in the US runs in billions annually, as evidenced by cases brought by the US Department of Justice. The "improper payments" tracking by CMS(17) shows it to be at $103.6B across many categories. Many CMS and USDoJ cases revolve around Durable Medical Equipment (DME) and Medical Tests that were never delivered, yet improperly reimbursed.

D. **DME Loss** estimates vary widely. ChatGPT response to the question, as projected for a Health System with $16B in annual revenues, brought the following result:

Potential RPM Losses for a Hospital System ($16B in annual revenue)			$ (Low)	$ (High)
1	Implementation	Underutilization of $5-10m investment	$1m	$4m
		Integration problems with EHRs	$1.6m	$3.2m
2	Reimbursement Losses	Billing & Coding Errors / Bad documentation	$1m	$2m
3	Cybersecurity Risks	50,000 patient records breach		$20m
4	Patient non-adherence	Reduced effectiveness from non-compliance	$5m	$10m
5	Equipment Malfunctions	Additional diagnostic efforts & liability	$0.5m	$1m
Total			**$10m**	**$40m**

E. Similar questions for **DME Fraud Loss** estimates (for a Health System with $16B annual revenues) brought a ChatGPT response of 0.5-2% of revenues or $80m-$320m. The fraud consists of billing for unnecessary equipment, overcharging for high-end devices when low-end would suffice, upcoding, phantom billing, kickbacks from suppliers, and patient identity fraud. Even after halving that number, in due skepticism for possible AI hallucinations, this represents a $40m-$160m annual problem for the hospital system. Equipment lost by RPM patients, and never recovered by the health system, can be a significant part of those losses.

F. **Asset Tracking** (chain-of-custody management) becomes a crucially important part of recovering the DME-on-loan to patients. The savings can go a long way in reducing the

$10m-$40m in RPM losses of a hospital system of that size. My interest in RPM stems from having built a SaaS Asset Management tool, AssetRight, for such Chain-of-Custody management, with AI tools, for instant access to the assets' locations, condition and availability status, technical documents, manuals, maintenance details, providers' contact info, and Total Cost of Ownership (TCO) till its projected end-of-life.

6. Incorporating RPM into Your Practice

A. **Understand RPM and Identify Patient Needs**: (1) Assess patient populations to identify conditions that benefit most from RPM, such as chronic diseases (e.g., diabetes, hypertension, heart failure), post-operative care, or at-risk elderly populations, and (2) Define goals such as reducing hospital readmissions, improving patient adherence, or early detection of complications.

B. **Choose the Right Technology**: (1) Choose devices tailored to patient needs (2) Use platforms that integrate RPM data into your Electronic Health Record (EHR) system for streamlined access, and (3) ensure devices and systems are interoperable and HIPAA-compliant for data security.

C. **Develop a workflow**: (1) Define roles on your team, (2) Create protocols for data collections and review, alert responses, and patient communication, and (3) automate the automation tools for data collection and analysis as much as possible.

D. **Emphasize Education**: (1) Educate your staff on your protocols, RPM device operations and its software, (2) Educate patients (and their home-caregivers) with summaries of how to read and understand the RPM results and what actions to take when the device readings warrant.

E. **Explore Reimbursement Opportunities**: Medicare Codes for RPM services may be useful in financially supporting your RPM initiative.

- CPT 99453: Device setup and patient education
- CPT 99454: Device supply and transmission
- CPT 99457/99458: Remote monitoring and care management

7. Sources of RPM Training for Your Practice

Several organizations are known to assist healthcare practitioners with RPM related training. Here is a sample:

Accuhealth	https://www.accuhealth.tech/rpm-university
URAC	https://www.urac.org/accreditations-certifications/programs/digital-telehealth-programs/
University of Virginia Health	https://uvahealth.com/services/telemedicine/education
TeleHealth Certification Institute	https://www.careerexplorer.com/careers/remote-patient-monitoring-specialist/how-to-become/

8. Entrepreneurial Opportunities offered by RPM

We ought to consider how entrepreneurial energies may drive RPM even further.

A. RPM "democratizes" high-level health care to medical practices of ALL sizes by reducing the initial investments needed by reducing the initial investments needed... the so-called leveling of the playing field. Assisting smaller medical practices to take advantage of RPM towards better profitability can be an entrepreneurial opportunity.

B. Supplying temporary personnel to help implement RPM and train the local staff of long-term care facilities.

C. Creating short-term care "hotels" that can comfortably host post-operative recoveries.

D. Providing Training on DME of RPM Devices, as part of Local Patient Monitoring training to patient's home caregivers.

E. Creating temporary loan programs of RPM devices, as part of

the Hospital @ Home programs

F. Developing AI Applications, perhaps privatized for health systems, to monitor RPM devices and alert the remote medical caregivers charged with monitoring the patient remotely.

G. Large Language Models (AI) that are focused on creating medical libraries for each specific health condition. Enhancements of the libraries by the AI, with global literature publications for each specific condition, would be of great value to home caregivers. They can thus consume information on latest advances towards active "local" monitoring of the patient they love.

H. Fraud Detection that can be implemented by hospital systems that can assist in avoiding reputation damage as well as penalties levied by the authorities.

9. Conclusions

Looking a few years down the road, a lay perspective emerges as follows:

A. Net Growth of RPM will continue as underpayments from CMS for Medicare & Medicaid will continue to squeeze the hospital systems' profitability. All levels of medical practices, not just big hospitals, will enter the RPM movement with a leveling of the playing field.

B. De-population is too far away to ease the current pain of caregiver shortages on societies. Concentration of the aging population into long-term care and senior living environments will ease the burden slightly.

C. Better focus on "Local" Patient monitoring tools and training is a critical success factor for better patient outcomes, cost efficiency, RPM device care and maintenance.

D. RPM will evolve to merge with the H@H idea. Senior & Long-Term Care facilities will take on the Hospital substitute roles quite effectively.

E. AI tools will help educate home caregivers on the most effective actions needed in caring for their patient.

I welcome your comments sent to cthaker@telebright.com

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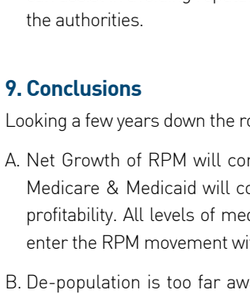

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Key Partnerships

Yale School of Medicine
Smilow Cancer Hospital
Lombardi Cancer Center
Georgetown University Medical Center
Cedar Sinai Medical Center
Debbie's Dream Foundation
Hope for Stomach Cancer

Upcoming Event

Stomach Cancer Advocacy
February 25, 2025
Capitol Hill, Washington, D.C.

Get Involved

Learn more about how you can support stomach cancer prevention and awareness.

Visit: www.stomach-cancer.org Email: SCTFinfo@gmail.com

Medical Report

Community outreach is essential for addressing healthcare disparities that traditional hospital- and academic-based studies often overlook. These conventional approaches frequently fail to include underserved populations, where cultural, linguistic, and social determinants of health are critical factors, leading to biased outcomes. This review underscores the importance of grassroots efforts in combating chronic hepatitis B (CHB), a condition disproportionately affecting Asian Americans. By tackling barriers like language, culture, and health literacy, it showcases a successful model for reducing health disparities and advancing equity in care, offering valuable insights for future initiatives.

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Community-Based Hepatitis B Campaign in Asian Americans

Abstract

Chronic hepatitis B (CHB) disproportionately affects minority groups in the US, particularly Asian Americans, with numerous factors contributing to this disparity. Of the 2.4 million people living with chronic HBV in the US, 60% are Asian American. Many are unaware of their status and lack access to proper clinical care, with less than ten percent receiving necessary antiviral treatment. Barriers to screening and care include lack of disease awareness, lan- guage and cultural barriers, and financial constraints. Additionally, healthcare providers and systems in the US often overlook the importance of CHB, lead- ing to inadequate care. In response, the Center for Viral Hepatitis (CVH) has implemented a community-based outreach program over the past sixteen years, employing a multifaceted approach involving all sectors of society and various organizations to combat health disparities in CHB. This grassroots campaign has proven highly effective, leveraging CVH's leadership in spear- heading numerous collaborative activities with community members, healthcare professionals, and policymakers. We have summarized the key points of CVH's efforts and their significance in combating CHB-related health disparities. The CHB Screening and Awareness Campaign, tailored to the Asian American community, serves as a successful model for increasing CHB screening, linkage-to-care, and addressing socio-cultural barriers and health literacy. Insights from these outreach programs have guided the devel- opment of culturally relevant resources and education initiatives. These find- ings suggest that such community-driven approaches are essential for address- ing health disparities. The strategies and outcomes of CVH's efforts can in- form future health initiatives for other minority communities in the US and globally.

Keywords

Chronic Hepatitis B (CHB), Hepatitis B Virus (HBV), Health Disparity, Health Inequity, Asian Americans, Cultural Competence in Healthcare, Community-Based Screening, Linkage-to-Care (LTC)

1. Introduction

In the US, ongoing health disparities can result in unequal health outcomes and limited access to healthcare services, impacting minority populations in particular. These disparities are influenced by various barriers: social, economic, environmental, and systemic. A prime example of these challenges is the elevated CHB-related morbidity and mortality among Asian Americans, highlighting the intersection of these disparities [1]-[4].

CHB is a major cause of liver-related illnesses and deaths globally and in the United States. In the US, approximately 2.4 million people live with chronic HBV, with 60% belonging to the Asian American community [10]. Sadly, many are un- aware of their infection status and lack access to proper clinical care, with less than ten percent receiving necessary antiviral treatment. Approximately 25% of CHB patients experience severe complications such as liver cirrhosis, liver failure, and primary liver cancer [5]-[7]. There is a significant disparity in CHB prevalence among racial and ethnic groups; Asian Americans are disproportionately affected. While around 4% - 10% of Asian Americans are impacted by Hepatitis B Virus (HBV) infection, only 0.1% of Caucasian Americans are affected [4] [8]. Despite comprising less than 5% of the total U.S. population, Asian Americans account for over 60% of all chronic hepatitis B cases in the country [9] [10]. Alarmingly, many individuals with CHB are unaware of their status, and vaccination rates among Asian Americans remain low. Moreover, only a tiny fraction of CHB patients in the US currently receive antiviral treatment despite its availability [10]- [12].

CHB remains underdiagnosed and poorly linked to clinical care owing to bar- riers of several types: Personal (limited disease awareness, linguistic and cultural barriers, and financial constraints); Systemic (the lack of culturally competent care, resulting in communication gaps and inadequate management) [3] [13] [14]; and structural (limited healthcare access, institutional policies, and immigration status) [15] [16]. Racial bias and stigma can also impede HBV care and may inad- vertently perpetuate disparities. Healthcare systems often undervalue addressing CHB, hindering intervention effectiveness [17]-[19].

Additionally, underrepresentation in research, mainly from a lack of funding for the management of diseases prevalent among ethnic minorities, limits understanding of health needs and effective interventions. Addressing these issues requires a comprehensive approach, including community engagement, culturally responsive services, policy advocacy, and systemic reforms. Collaboration among community organizations is vital to empower Asian American communities and overcome these obstacles. This is why we at the CVH have actively sought collab- oration with various organizations.

To address structural deficiencies and systemic barriers in HBV care among Asian Americans, we have adopted a comprehensive community-based strategy. This approach enhances health literacy, tackles social determinants of health, promotes cultural competence, advocates for policy changes, and engages communities in culturally relevant initiatives. Cultural competence enables providers to deliver effective care to diverse patients by understanding and respecting cultural differences, recognizing biases, and communicating sensitively to improve out- comes and satisfaction. Our goal is to eliminate health disparities and achieve health equity, ensuring everyone has fair access to healthcare and the opportunity to attain their highest health level regardless of social, economic, or demographic factors. Addressing these challenges improves health outcomes and alleviates eco- nomic burdens. The projected rise in the Asian American population underscores the urgency of promoting fair healthcare access and easing the financial strain on national resources [20] [21].

In this review, we have summarized the results of our studies in the 2008-2024 Hepatitis B campaign, along with studies of other investigators, and have grouped the discussions into three separate categories: HBV screening and LTC, health lit- eracy and sociocultural factors, and a tool to enhance communication. We did this to demonstrate that community-based campaign efforts have been effective in identifying critical issues related to CHB disparity in the US, and to further guide future improvements to reduce the burden of CHB to other ethnic populations.

2. Community Context

CHB bears several distinct characteristics that distinguish it as a community health problem.

First, it is a community issue as much as a national and global problem. Sec- ondly, CHB disproportionately affects minority immigrant populations and thus is mostly confined to specific demographic groups in the US. Thirdly, there is an urgent need to provide a solution. These characteristics make hepatitis B in the US a community health issue. In this section, we describe the key community de- mographics, cultural context, and challenges the Asian American community has faced in obtaining equitable CHB care and access. We explain the reasons behind our community's initiative

to enhance opportunities in CHB care and how we inspired collaborative action.

For review purposes, we delineate a "community" as a cohesive group unified by shared characteristics, geography, and socio-cultural ties. This definition en- compasses population segments with common racial and ethnic backgrounds, such as immigrant ethnic minorities in the US. In this context, "community health" denotes the optimal health status a defined group endeavors to achieve to preserve their well-being. Consequently, a "community-based solution" denotes a community-instigated initiative, policy, program, or legislation to address local factors influencing health and potentially enhance the community's welfare.

The target community CVH has worked with is the Asian American population in the Greater New York (NY) area, known for its diversity and vibrancy. It show- cases a blend of cultures, languages, and traditions from East Asia, South Asia, Southeast Asia, and the Pacific Islands, enriching the region's cultural, social, and economic fabric [20] [21]. The Asian American presence in the Greater NY area is significant and rapidly expanding. According to the U.S. Census Bureau, as of 2022, Asian Americans make up 14.5% of New York City's population, particu- larly prominent in Queens and Brooklyn [22]. The community comprises indi- viduals with roots in various countries, including China, India, Korea, Myanmar, Pakistan, and the Philippines.

In addition, sizable populations of Asian Americans from various ethnic groups reside in suburban New Jersey and Long Island. The history of Asian Americans in the Greater NY area is marked by waves of immigration, with recent arrivals from South Asia, Southeast Asia, and other regions seeking economic opportuni-ties, escaping political unrest, or reuniting with family [20] [21].

Despite facing challenges such as language barriers and limited access to culturally competent healthcare and education, the Asian American community in the Greater NY area remains resilient and culturally vibrant. Strong social networks, religious institu- tions, and advocacy groups provide crucial support. Social determinants and structural factors, however, continue to disproportionately impact low-income immigrants, refugees, and those with limited English proficiency, perpetuating poverty and marginalization [23]-[25].

In addressing CHB among Asian Americans, we used community collaboration and culturally sensitive awareness campaigns in a multifaceted approach to reach at-risk populations and reduce the disease burden [3] [26]-[28]. By partnering with leaders, organizations, and healthcare providers, and leveraging a digital platform, we mobilized resources, engaged diverse populations, and enhanced ac- cess to testing and treatment services, as explained below in greater detail.

3. Multifaceted Grassroots Approach

3.1. The Center for Viral Hepatitis (CVH)

The CVH is a non-profit dedicated to heightening HBV awareness within high- risk populations. Its team comprises community leaders, physicians, nurses, vol- unteers, and medical students. CVH spearheads outreach and education, provides screening and linkage-to-care services, promotes culturally competent healthcare practices, and conducts clinical studies. These efforts address CHB-related barri- ers and systemic issues in health equity in the US.

From February 2008 to January 2024, CVH and its partners organized over 274 community outreach events in NYC and Bergen County, NJ, targeting HBV screening and education. These events engaged 22,700 Asian American partici- pants, spanning various ethnicities. Forming partnerships with key community organizations was essential for effectively executing these initiatives, fostering community ownership, and utilizing evidence-based strategies to enhance health outcomes and reduce community-level disparities.

In addition to serologic screening and surveys, CVH conducted workshops, lec- tures, and general education events at community centers, hospitals, and faith- based organizations. Five hospitals, including three university medical centers, and sixty-eight healthcare providers actively participated. Leading this multicity community-based campaign, CVH played a pivotal role in strategizing, motivat- ing, and forming partnerships with its collaborators to advance hepatitis B aware- ness. CVH provided public education seminars, offered provider education on specific medical topics, conducted patient focus groups, and developed a mobile communication device for better outreach.

3.2. Collaborating Organizations and Their Roles

3.2.1. Community-Based Organizations of Different Asian Ethnic Groups CVH teamed up with eight community-based organizations and 23 faith-based groups representing Burmese, Chinese, Indian, Korean, and other ethnicities. Their roles included: 1) Spearheading outreach initiatives to boost hepatitis B awareness, utilizing their community connections; 2) Coordinating workshops, health fairs, and seminars to disseminate information, offer resources, and advo- cate for preventive measures; 3) Promoting cultural sensitivity and linguistic ap- propriateness in all awareness campaigns; 4) Assisting CVH, hospitals, and part- ner organizations in identifying high-risk populations for hepatitis B and crafting tailored messaging and engagement strategies; 5) Bridging access to hard-to-reach community members, including homeless individuals, undocumented immi- grants, or those with limited healthcare access; 6) Providing support services and referrals to individuals in need, guiding them towards screening services, health insurance enrollment, or support groups as necessary.

3.2.2. Hospitals and Academic Medical Centers
CVH partnered with five community hospitals and three academic medical cen- ters in New York and New Jersey. CVH was key to establishing the Asian Liver Center at Holy Name Medical Center in Teaneck, NJ, providing culturally com- petent services. Additionally, CVH secured funding and initiated HBV and Hep-atitis C Virus (HCV) screening in the Emergency Departments of Englewood Hospital and Holy Name Hospital, NJ, leveraging grant funds from pharmaceuti- cal companies. Hospitals' roles included: 1) Providing clinical expertise and re- sources to enhance disease awareness. 2) Offering access to healthcare facilities for screenings, workshops, and support groups. 3) Facilitating patient referrals and care coordination for timely access to services. 4) Collaborating closely to es- tablish partnership agreements and maximize impact. 5) Allocating resources and funding to sustain awareness campaigns and programs.

3.2.3. Community HCPs
CVH collaborated with HCPs to form provider networks dedicated to enhancing cultural competence in healthcare and addressing disparities in hepatitis B care. Volunteer providers are instrumental in raising disease awareness and applying their medical expertise to engage communities, offer education and support, ad- vocate for enhanced healthcare access, and foster healthier communities. The roles of volunteer HCPs include: 1) Offer medical expertise on diseases and sup- port awareness efforts. 2) Join health education and outreach activities, including workshops, seminars, and health fairs. 3) Provide screening and diagnostic ser- vices. 4) Offer counseling and support to those facing health challenges. 5) Advo- cate for disease prevention and healthcare access. 6) Collaborate with other healthcare professionals and organizations. 7) Mentor healthcare providers and volunteers. 8) Contribute to data collection and research initiatives to understand disease prevalence, risk factors, and health outcomes within the community and collaborate with researchers and public health experts to use evidence-based in- terventions.

3.2.4. Businesses and Pharmaceutical Companies (Pharma)
CVH collaborated with pharmaceutical companies and other businesses that are pivotal in supporting community health initiatives through various avenues: 1) Corporate Social Responsibility (CSR) programs: Many businesses allocate re-sources to support community health initiatives. These can include funding healthcare infrastructure and sponsoring health education programs. 2) Research and Development: Pharma invests in research and development to discover and develop new drugs, vaccines, and treatments for diseases that disproportionately affect communities. These efforts improve health outcomes and reduce disease burdens. 3) Access to Healthcare Products: Pharma has been critical in boosting access to essential healthcare products, such as medications and vaccines, espe- cially in underserved communities. In support of CVH's efforts, they offered dis- counted or free medications through patient assistance programs. 4) Health Pro- motion: Pharma and other businesses engaged in health promotion and education activities to raise awareness of CHB.

3.2.5. Policymakers and the Government
CVH worked with policymakers and agencies, including the NYC and Bergen County Departments of Health, and engaged members of Congress to address health inequalities, particularly hepatitis B in Asian American communities. Col- laborating with the Congressional Hepatitis Caucus, co-chaired by Reps. Mike Honda and Bill Cassidy, CVH emphasized early treatment, preventive measures, and the need for a cure. The passage of the Viral Hepatitis Testing Act of 2011 (H.R. 3381) secured funding for prevention programs and raised nationwide awareness. Policymakers supported HBV initiatives by enacting legislation, secur- ing funding, promoting cultural competency, engaging communities, and sup- porting research efforts.

4. Specific Activities and Projects

We have categorized the important findings from studies conducted by CVH and other sources into three categories: A. Screening and LTC in Asian populations;

B. Health literacy and sociocultural factors; and C. Tools to enhance communica- tion.

4.1. Screening and LTC in Asian Populations

4.1.1. Korean Americans
The majority of people chronically infected with HBV are unaware

of their infec- tion, highlighting significant barriers to screening in the United States. These bar- riers are multifactorial, including a lack of disease awareness, language and cul- tural barriers, and financial issues [13] [14]. Additionally, the US healthcare sys- tem has historically lacked an understanding of CHB's significance, and there are inadequate public health systems to meet multicultural needs [15] [16]. Poor com- munication between providers and patients of diverse backgrounds and a lack of cross-cultural training among health professionals exacerbate the issue [17] [18]. Consequently, there are inadequate health access models for minority populations in the US.

Bergen County and its vicinity have a high concentration of Asian American immigrants, many of whom are infected with HBV. Despite the growing popula- tion of Korean Americans in the area, the existing HBV screening programs have not adequately reached this community. Between December 2009 and June 2015, CVH spearheaded 128 community outreach HBV screening events in Central and Northern New Jersey. These events provided serologic screening and surveys to 7199 Korean American adults (mean age 52). More than 98% were born in Korea. All participants were tested for hepatitis B surface antigen (HBsAg), hepatitis B surface antibody (anti-HBs), and hepatitis B core IgG antibody (Anti-HBc) [29]. All the participants attended CHB awareness seminars and were asked to partici- pate in these voluntary screenings. These participants were not interviewed before screening and were not selected on the basis of any additional risk factors related to HBV infection.

HBV Prevalence and Linkage to Care in Korean Americans

Among the 7157 individuals screened, 171 (2.4%) were HBV-infected, 2736 (38.2%) were susceptible to HBV, and 4250 (59.4%) were immune. The prevalence of chronic HBV varied by age group: 1.18% (21 - 30 years), 2.53% (31 - 40 years), 2.76% (41 - 50 years), 2.90% (51 - 60 years), 2.06% (61 - 70 years), and 1.37% (71 - 100 years). HBV prevalence was higher in males (3.04%) than females (1.93%). Notably, 75% of these HBV-infected individuals had been previously diagnosed but were not engaged in care [29].

Historical Trends in HBV Prevalence and Comparison with South Korea

This study suggests that the HBV prevalence in Korean Americans is lower than previously thought [29]. Historical data show a decline in prevalence over the past three decades: 1988-1990: 6.1% HBV prevalence among 6130 Korean Americans in the eastern U.S. 2004-2007 [30]: 4% prevalence among 609 Korean Americans

in Colorado [31], and 2009-2010: 3.0% prevalence among 973 Korean Americans in California [32].

Recent studies in South Korea show a decreasing trend in HBV prevalence. From 1998 to 2010, HBsAg positivity dropped from 4.61% to 2.98% among 50,140 participants. Age-specific declines were notable, with HBV prevalence in individ- uals aged 10 - 20 decreasing from 2.2% in 1998 to 0.12% in 2010, and from 4.72% to 2.29% in those aged 10 - 39 years [33]. This decline in HBV prevalence among both Korean Americans and Koreans in South Korea is attributed to HBV im- munization programs. South Korea's national immunization program for all ne- onates began in 1995, significantly reducing both vertical and horizontal trans- mission [34]. Similarly, universal vaccination programs have decreased HBV prevalence among those younger than 20 years worldwide [35].

Efficacy of the Community-Based CHB Campaign on LTC

Despite the decline in HBV prevalence, a significant portion of the Korean American population remains susceptible to HBV, with more than one-third lack- ing immunity across all age groups. A notable percentage of young adults (21 - 30 years) also remains susceptible, with only 59.3% having detectable anti-HBs levels from vaccination. In sum, this study highlights that many HBV-infected individ- uals are not engaged in care, reflecting poor LTC in the Korean American com- munity [36]. Previous studies have also shown that only a minority of HBV-in- fected individuals access care [15] [17] [37].

An eight-year follow-up study of 97 HBV-infected participants from our com- munity-based hepatitis B campaign demonstrated successful care linkage and en- gagement [36]. Among the 66 participants who accessed care after screening, the rate of LTC increased over time: 46% in 2 years, 65% in 4 years, 78% in 6 years,

and 86% in 8 years. Notably, 23 of these 66 participants (35%) were started on antiviral medication. These cumulative increases in LTC throughout the 8-year observation suggest the efficacy of ongoing hepatitis B education and screening efforts in this community.

Continued monitoring and management of CHB patients are essential for im- proving LTC. Current and previous studies indicate significant gaps in LTC for HBV-infected patients, underscoring the need for qualified providers who can of- fer culturally and linguistically sensitive care. Effective community-based cam- paigns and education efforts are crucial to addressing these challenges and en- hancing LTC for HBV-infected individuals.

4.1.2. Chinese Americans

Chinese Americans, one of the fastest-growing ethnic groups in the United States, number approximately 5.5 million, making up about 1.7% of the total U.S. popu- lation [38]. Since many in this population are immigrants from regions with high CHB endemicity, it's crucial to evaluate the current prevalence of CHB and LTC within the Chinese American community. This is particularly important given the lack of studies since 2010 evaluating hepatitis B prevalence among Chinese Amer- icans.

We carried out community-based screening for Chinese Americans in New Jersey to determine their current hepatitis B epidemiology and to further probe the issues related to inadequate LTC. The Chinese American targeted campaign consisted of 41 community outreach screenings and education seminars at various locations throughout Northern New Jersey between July 2015 and April 2017 [37]. The sample consisted of Chinese Americans in various community settings such as churches, community centers, and health fairs. All the participants attended CHB awareness seminars and were asked to participate in these voluntary screen- ings. The participants were not interviewed before screening and were not selected on the basis of any additional risk factors related to HBV infection. All of the 898 participants were Chinese-born immigrants aged between 20 and 79 living in New Jersey.

We evaluated the prevalence of chronic HBV infection, the level of patient awareness of infection, and LTC. Screening 898 Chinese Americans revealed 5.5% HBV infected, 62.7% immune, and 31.8% non-immune. Our study suggests that HBV prevalence among Chinese-American adults may be lower than previously thought, but a large percentage of the population is still at risk for infection. Thirty-one of 49 HBsAg seropositive subjects knew of their infections, but only 5 participants had accessed care for CHB. Within 6 - 20 months after the screening and education, 25 participants were accessing care. These results demonstrated a pressing need to address a possible lack of health education and other important barriers preventing access to care.

Decreased HBV Prevalence among Chinese-Americans

Because the methodology employed in the current study differs from epidemi- ologic methodologies employed in other studies, no direct comparison between prevalence rates can be made. Furthermore, prevalence rates may vary owing to different levels of access to care and hepatitis B vaccination rates in varying re- gions. It is noteworthy, however, that the HBV prevalence of 5.5% for Chinese Americans is considerably lower than has been reported in previous studies. Be- tween 2001 and 2006, the HBV prevalence rate of Chinese-born Chinese Ameri- cans living in the San Francisco Bay Area was reported to be 11.1% [39]. A review of the reports published between 1980 and 2010 showed an HBV prevalence of 12.25% among Chinese-born Chinese Americans [40]. The San Francisco Hep B Free Campaign, which tested 2388 Chinese Americans between 2007 and 2009, revealed an HBV prevalence of 7.2% [41].

A systematic review and meta-analysis conducted from 2018 to 2022 found that the overall HBV prevalence in the general population of mainland China was around 3%, with variations across different regions and demographics [42]. This represents a significant drop compared to a previous meta-analysis, which esti- mated the HBV prevalence in China between 2013 and 2017 to be 7%. This sug- gests a potential decrease in prevalence over time, though it's important to note that rates can vary significantly based on geographic and demographic factors, with urban areas having significantly lower rates than rural regions.

Considering these findings, CHB prevalence may be higher among Chinese Americans than among Chinese residents in China. This disparity probably exists because many Chinese Americans may not have benefited from the nationwide vaccination programs implemented in China as they immigrated to the US.

Many Still at Risk and Unaware of the HBV Infection

Community-based outreach was successful in effectively screening large num- bers of Chinese Americans with HBV infection in northern New Jersey. Health access is suboptimal as most of the chronically infected participants in our popu- lation were not seeing physicians, indicating a strong need to improve health ed- ucation and LTC. Moreover, 37% of the HBV-infected participants were either unaware or unsure of their infection status. The results of this study may be used to develop evidence-based, community-level strategies to tailor HBV awareness campaigns and LTC.

4.1.3. Indian Americans

Studies have assessed the prevalence of HBV in various Asian American groups, but research on Indian Americans is limited. The prevalence of HBV in India is 3.7%, and approximately 40 million people are infected, contributing significantly to the global HBV burden [43]. India ranks in the intermediate endemic zone for HBV infection [44] [45]. A recent analysis of 28 publications, comprising 45,608 participants from various regions of India, for instance, found a wide range of HBV prevalence, ranging from 0.87% to 21.4% of the population [46].

With a population of more than 4.8 million in the US, Indian Americans are among the largest groups of Asian Americans. Today, Indian immigrants account for approximately 6 percent of the US foreign-born population, making them the second-largest immigrant group after Mexicans [47] [48]. Metropolitan NY and Central Jersey are the largest and most diverse South Asian ethnic enclaves and cultural hubs in the US, with the highest concentration of Indian Americans [47]. With the continued surge of immigration from India, the burden of CHB is ex- pected to increase unless adequate strategies are implemented.

Between April 2022 and January 2024, we carried out HBV screening and edu- cation activities at 19 community screening events at various locations throughout Queens, NY. Of 328 screened and evaluated (246 males and 82 females), 10 (3.0%) were HBV-infected, 222 (67.7%) were susceptible to HBV, and 96 (29.3%) were immune. The prevalence of chronic HBV varied between the age groups: 4.6% (age 20 - 40), 3.4% (age 41 - 60), and 1.7% (age 61 - 80) [49]. Surprisingly, only two of the ten HBV-infected subjects had previously known of their infection sta- tus,

and none had been linked to adequate care for monitoring and treatment [49].

A Vast Reservoir for Infection

The Hepatitis B (HB) vaccination rate among Indian Americans is significantly lower than in Korean and Chinese Americans [29] [36], with only 15.9% having developed protective antibodies from vaccination. This contrasts with a reported 27% - 30% vaccination rate in the latter groups. While a recent report suggests a higher vaccination rate among Indian Americans as compared to the past, it may overestimate immunity as it doesn't differentiate between vaccine-induced immunity and past infections [50]. National data on adult HB vaccination in India are lacking, but existing data suggest regional disparities, with urban areas show- ing higher vaccination rates compared to rural areas [51]. Additionally, 67.7% of participants in our study were at risk for infection, mirroring findings from India, indicating a substantial reservoir of infection in the country. India introduced HB vaccination relatively late, and while some studies report its impact in limited ar- eas, there's a lack of national data, highlighting the need for comprehensive sero- logical surveys [51].

Community-Based Screening

Despite the small sample size, this study sheds light on the HBV status of the Indian American community, raising crucial points for approaching multi-ethnic populations in the US with significant HBV infection reservoirs [49]. It's the first report on HBV prevalence among Indian immigrants in the US, with a prevalence of 3%, highlighting the lack of prior screening and LTC studies in this population at moderate risk. Urgent and extensive evaluation of HBV prevalence in the In- dian American community is needed, along with community outreaches that have been successful in other Asian American communities [29] [36] [37]. Most HBV-infected subjects in this unique Indian American study were diagnosed for the first time, indicating a severe lack of screening and education, especially given the projected increase in the Indian immigrant population in the US. Similar chal- lenges to LTC have been reported in other Asian American communities, empha- sizing the need for improvements in patient education, counseling, and navigation efforts to improve linkages to HBV care. Future comprehensive, community- based HBV screening and evaluation programs may help facilitate LTC and re- duce the HBV burden in the US.

4.2. Health Literacy and Sociocultural Factors

4.2.1. Health Literacy

Aside from screening and vaccination, education is critical to ensure HB is not overlooked in at-risk populations [52]. The Institute of Medicine and CDC em- phasize working with stakeholders to develop effective education programs to raise HB awareness [52]. There is still a significant lack of education, however, particularly in middle and high schools in New York and New Jersey, where there are large immigrant populations from HBV-endemic countries. These schools re- quire HB vaccination records but do not require screening or provide education on HB prevention or management [53] [54].

Studies have shown low HB knowledge in high-risk populations, particularly among Asian Americans, which is linked to demographic and acculturation fac- tors. These findings highlight the importance of health literacy in enhancing care linkage [55] [56] [57]. Our studies evaluated HB knowledge among individuals from HBV-endemic communities, revealing a serious need for education. A sur- vey of 521 Korean American adults, including 296 parents, conducted during community-based HB awareness campaigns in New York from January 2015 to November 2016 showed significant knowledge deficits [58]. While many knew CHB is a liver disease and had been screened, they lacked understanding of vac- cination, screening, modes of HBV transmission, their own HB status, and the consequences and treatment of CHB. Many were also unaware of their children's HB status. This lack of health literacy contributes to poor health access to HB care in both adults and children, indicating an urgent need for education on HB among Korean American parents and young children. Given the high rate of HBV in cer- tain populations, more effort and resources must be devoted to educating the af- fected community and children about CHB and its serious complications to im- prove health disparities among racial and ethnic minorities

4.2.2. Health as a Cultural Concept

Screening and preventive behaviors in Asian Americans are infrequent and poor, leading to low healthcare utilization for consistent CHB monitoring and treat- ment [59]. Cultural and social determinants of health, such as resource availabil- ity, education quality, and social support, significantly influence health outcomes

[13] [60] [61]. Health is also a cultural concept, as culture shapes how individuals perceive their experiences in health. Cultural determinants of health include peo- ple's beliefs, practices, and values, which impact their health behaviors and, thus, outcomes. These factors can also interact with biological factors to shape health experiences and outcomes [62] [63].

Sociocultural factors also impact health literacy, which is crucial for healthcare- seeking behaviors and outcomes. Low health literacy affects one-third of the U.S. adult population, reducing preventive measures, higher hospital admissions, and long-term health conditions [64]-[67]. It disproportionately affects racial and eth- nic minorities, contributing to health disparities [68]. For CHB, prevalent among ethnic minorities, poor health literacy can worsen outcomes.

Social and cultural determinants of health correlate with HBV testing and ac- cess to care, specifically among foreign-born US residents. Studies have suggested that social determinants such as income, English fluency, religion, and education level all play a role in the burden of HBV infection among foreign-born US resi- dents. Certain economic conditions, such as worrying about rent, were associated with lower HBV testing, indicating that fiscal concerns may influence individuals to prioritize needs other than health and health care [69]. Asian Americans were more likely to never have been screened if they did not speak English fluently [70]. Other studies in African and Chinese immigrant communities found that linguis- tic discordance in healthcare settings contributed to a feeling of misunderstanding and cultural disconnect [60] [71]. The cultural stigma around screening [69], the taboo and secrecy of discussing disease [71], and the use of traditional medicine and spiritual healing [60] [71] are some examples of cultural influences on HBV care.

The US healthcare system also surfaced as a strong social determinant of health. Its complexity, stemming from limited health literacy, perceived discrimination, cost, and difficulties navigating the reimbursement system, was found to influence access to healthcare. Mistrust also arose in communities with historically rooted fears of experimentation [71] and in those with a lack of trust in physicians [60].

Few interventions have been designed to address sociocultural barriers to HBV care in diverse populations. Some novel initiatives have been employed to mitigate the effects of low health literacy and increase awareness of HBV, however. One intervention created engaging YouTube channels to facilitate the understanding of CHB history and pathophysiology [72]. Another intervention developed cul- turally tailored photonovels to spread awareness of CHB and liver cancer [73]. These featured culturally relevant components, such as faces of people in the same ethnic group playing central characters and storylines drawn from shared cultural experiences. This approach has been used effectively as a form of participatory education that actively draws upon cultural aspects of the target population.

HBV interventions could better reach high-risk populations by incorporating sensitivity to cultural factors, especially language and community contexts. Com- munity-based initiatives are one channel through which health promotion has no- tably succeeded in high-risk populations [27] [28]. These programs have delivered culturally appropriate educational initiatives and care packages encompassing HBV screening, ongoing disease monitoring, and treatment [17] [74]. Among for- eign-born US residents susceptible to HBV, continued health promotion that uses targeted cultural and linguistically appropriate messaging may be promising and improve HBV-related outcomes.

In one recent study, we evaluated various sociocultural factors and their inter- action with health literacy in impacting CHB care in a Korean American popula- tion [3]. This study involved focus groups with Korean American adults with CHB to investigate sociocultural barriers to hepatitis B literacy and their influence on healthcare access. Results highlighted themes of risk perception, language and stigma, and financial and institutional barriers, revealing a poor understanding of CHB and its complications. Cultural differences and a lack of understanding of healthcare systems further limited health literacy and care-seeking behavior. Cul- ture-specific barriers to health literacy also affected health behaviors in HB care. These findings may inform strategies for developing culturally tailored resources and programs, facilitating HB education and screening initiatives in immigrant communities.

4.3. Tools to Enhance Communication

Effective communication between patients and HCPs is essential for achieving positive health outcomes. Several barriers can impede accurate and timely com- munication, however. First, there is a language barrier where well-meaning HCPs may provide medically accurate information but phrase it in a way that patients with limited English proficiency struggle to understand, hindering their engage- ment with care [75]-[77]. Second, the high cost of visiting a physician, which may include not only time lost from work but also the cost of child care, can deter some patients from seeking or maintaining appointments [78]-[81]. Third, outside of scheduled appointments, HCPs have limited ways to provide patients with information and educational materials about their health conditions. Finally, pa- tients may live too far from HCPs, making it difficult to access care when needed

[82] [83]. There is a clear need for efficient communication systems that facilitate two-way communication between patients and HCPs so that patients can under- stand and engage with their care, manage costs, access information, and overcome geographic barriers.

Secure communication via texting between patients and HCPs may be used for consultation, patient engagement and education, and direct instant messaging [84]-[86]. Much evidence supports the use of texting between patients and HCPs and positive health outcomes. Text messaging can provide laboratory results, re- minders of appointments, medication administration and flu vaccination, and other services [87]-[89]. Specifically, text messaging has been shown to improve adherence to medication and attendance at medical appointments among HIV and other chronic disease patients [90] [91]. Text4Health projects have also helped to engage the underserved population and improve their health [92]. SmokeFreeText, for instance, more than doubled the smoking cessation rate among teens by texting smoking cessation messages to them [93]. Furthermore, the Text4Baby Campaign has helped expectant mothers to receive crucial prenatal care resources, thereby fostering the safe delivery of their babies [94].

As texting has become a progressively effective tool in patient engagement, the number of health apps has dramatically increased during the past decade. As of 2013, there were more than 1700 diabetes mellitus apps in all the app stores com- bined (Apple app store, Google Play store, and Windows) [95]. These mobile health apps on smartphones can collect and deliver healthcare data and monitor patients' vital signs in real-time [96] [97].

We have previously investigated the use of mobile text messaging in facilitating the connection between HCPs and individuals with CHB or at risk for it [98]. The study's results demonstrated a significant positive impact on access to care after just a 3-month intervention period. This suggests that using mobile text messag- ing interventions could help patients better engage with healthcare providers, po- tentially improving their access to healthcare and their understanding of their own needs.

To further examine the efficacy of mobile texting in engaging patients in col- laborating in their own HB care, we developed a text messaging app, HepTalk [99]. We evaluated the effects of its use in two groups of individuals similar to those in our previous study: people with CHB, who are not currently accessing care and thus need to see HCPs for further evaluation; and nonimmune individ- uals who need vaccination at a health care facility.

The results of this study demonstrated that HepTalk could be employed to boost patient engagement and improve outcomes in HB care. This study further supports the finding of our previous investigation, which suggested that a form of mobile texting combined with the patient navigator program facilitated commu- nication between the patients and HCPs and enhanced LTC [98]. HepTalk provided an effective communication mechanism through which patient naviga- tors could guide participants to appropriate health care resources. The benefits of HepTalk include communication speed, accessibility, and reduced patient ex- pense. HepTalk is not limited by geographic boundaries and can help people lack- ing transportation. Finally, as all the communication was in the patients' native language, HepTalk could also overcome linguistic and cultural barriers, at least where providers fluent in the patient's language are available.

In conclusion, HepTalk can empower patients to access healthcare effectively. Combining mobile texting with community-based patient navigation programs can enhance HB care and potentially care for other chronic illnesses in minority populations.

5. Discussion

5.1. A Multifaceted Approach Confronting Barriers in CHB among Asian Americans

Key strategies for tackling systemic barriers in CHB care include language access, culturally competent care, community engagement, health equity initiatives, and data collection and research. Examples include linguistically sensitive programs with seminars and materials in Chinese, Korean, Hindi, and Burmese. It is crucial to encourage healthcare providers proficient in these languages to participate in awareness campaigns. Collaborations with community organizations, hospitals, and leaders are essential for targeted outreach through workshops, health fairs, and support groups.

5.2. Implementing Long-Term Improvement in CHB-Related Disparities among Asian Americans

To achieve lasting improvements in chronic hepatitis B (CHB)-related health dis- parities within Asian American communities, a comprehensive and multifaceted strategy is necessary. This involves understanding their specific needs and experi- ences, fostering collaborations, and promoting cultural competence among healthcare providers. Expanding outreach efforts to increase access to screening, vaccination, and treatment, while addressing barriers like cost, transportation, and stigma, is crucial. Additionally, establishing patient navigation and support services, conducting tailored health education campaigns, and enhancing data collection to track progress and assess strategy effectiveness are essential steps.

5.3. Establishing Shared Goals in Culturally Relevant Ways among the Community Partners

Collaborations integrate cultural relevance into goals, respect diverse perspec- tives, and address inequalities sustainably. Providing cultural competence training to community leaders and partners enhances understanding of diverse cultural perspectives and communication styles, fostering empathy and mutual respect. Engaging affected communities through forums, focus groups, and storytelling sessions, and using tools like the HepTalk mobile app for patient communication, improves engagement and healthcare access. Town hall sessions enable commu- nity members to share experiences and concerns respectfully. Acknowledging contributions and celebrating cultural achievements reinforces collective identity and solidarity.

6. Limitations

This review has several key limitations. First, the samples used in the studies may not fully represent the broader Asian American population with chronic HBV. Future studies with larger, more diverse samples that consider health literacy and social determinants are needed to confirm and clarify these findings. Additionally, reliance on data collection from individuals attending health campaigns may in- troduce biases that affect the final analysis. Second, larger sample sizes from other geographic regions would be necessary to more accurately assess the interaction among factors influencing linkage to care in these moderate to high-risk popula- tions. Third, our studies do not generalize findings across all Asian American sub- populations. We recognize the diversity and varying cultural nuances within this group. Finally, due to the nature of these studies as population surveys and link- age-to-care studies, the use of control groups was not feasible.

7. Conclusion

CHB disproportionately affects minority groups in the US, particularly Asian Americans, with numerous barriers and systemic factors contributing to this dis- parity. As immigration-related minority populations are expected to rise in the US, this health gap may widen. Developing a strategy focused on increasing re- search, CHB screening, and access to primary prevention in high-risk populations is crucial. A grassroots campaign led by CVH during the past sixteen years involv- ing the community, healthcare professionals, and policymakers has proved highly effective. Our Hepatitis B Screening and Awareness Campaign, tailored to the Asian American community, serves as a successful model for screening and con- necting individuals to care, as well as addressing language and cultural barriers. Insights from hepatitis B community outreach programs have guided the devel- opment of culturally relevant resources and education initiatives. These findings could also inform health efforts in other immigrant communities, in the US and globally, in battling an array of disorders prevalent in such groups.

Author Contributions

CSH conceived the study, participated in its design, and drafted the manuscript. SK, SH, and JM participated in manuscript preparation. All authors read and ap- proved the final manuscript.

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Data Availability Statement

The data used and/or analyzed in the current review are available from the references.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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Dr. Chul S. Hyun is the Director of the Gastric Cancer Prevention and Screening Program at Yale School of Medicine. A graduate of the University of Miami School of Medicine, he completed his residency at Georgetown University and a fellowship in Gastroenterology and Liver Diseases at Yale. He has been instrumental in community-based health initiatives through the Center for Viral Hepatitis (CVH) and the Stomach Cancer Task Force (SCTF), focusing on reducing health disparities through culturally tailored education, screening, and preventive care.

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A Visionary Leader in Medicine and Healthcare

Pedro "Joe" Greer Jr., MD, FACP, FACG

Dr. Pedro "Joe" Greer, an esteemed physician and educator, is celebrated as one of the leading Latin American and U.S. physicians. As the founding dean of the Roseman University College of Medicine, Dr. Greer is spearheading innovative medical education with a focus on addressing Social Determinants of Health (SDoH) through community-centered care.

A tireless advocate for underserved populations, Dr. Greer has founded clinics for the homeless and undocumented and has influenced health policy during his service under Presidents George H.W. Bush and Bill Clinton. His dedication to healthcare equity has earned him numerous accolades, including the Presidential Medal of Freedom, cementing his reputation as a transformative figure in medicine.

As an International Medical Graduate (IMG), Dr. Greer highlights the indispensable role of IMGs in filling primary care gaps in the U.S., while shaping future generations of physicians to prioritize health equity and compassion in their practices. His remarkable contributions make him an inspiration to healthcare professionals worldwide.

1. Can you tell us about your early life and how your upbringing shaped your values and aspirations?

I was born in Miami on June 15, 1956, while my mother was visiting her father for his birthday. Less than two weeks later, we returned to Havana. After the Cuban Revolution in 1960, my family relocated to the United States. I grew up in Miami, with a brief but formative period in the Bahamas on Andros Island and Great Inagua, where my father was the sole doctor serving the islands and surrounding communities. Growing up during the transformative 1960s and 1970s deeply influenced me, instilling a desire to make life better for those around me. As part of an immigrant family, we embraced the opportunities this country offered—to succeed and to give back.

2. How did your cultural background, faith, and upbringing influence your outlook on life, your work, and your commitment to serving others?

My cultural background instilled in me a love for music, a deep appreciation for family, and a strong commitment to making sure no one feels excluded. Growing up, I was profoundly shaped by the times and my Catholic faith, which deeply rooted in me the values of compassion and social responsibility..

3. You are a gastroenterologist who has excelled in both community practice and the academic world. Can you share your educational and professional journey, and how your training experiences influenced your early work in healthcare?

My educational journey was great, and I have no complaints. The challenges I faced were no different from those encountered by anyone else. I attended ***La Universidad Católica Madre y Maestra*** in the Dominican Republic for medical school and completed my internship and residency in Internal Medicine at the ***University of Miami/Jackson Memorial Hospital*** and the VA system, where I served as Chief Medical Resident. I then completed two fellowships in ***Hepatology and Gastroenterology***. During my training, I established clinics to care for homeless and undocumented individuals, which laid the foundation for my commitment to underserved populations. I was also honored to contribute to two White House administrations under Presidents George H.W. Bush and Bill Clinton, which further broadened my perspective on healthcare policy and advocacy.

4. What would you consider your greatest achievements, both personally and professionally?

My greatest achievement was convincing my wife to marry me 43 years ago. As far as my career is concerned, I have simply done what my oath obligated me to do. I have received many accolades, but they were acknowledging what I was supposed to do. I appreciate them but realize how lucky I have been.

5. You've worked extensively with underserved communities. What are the biggest challenges you see in healthcare today, particularly for these populations, and what role should physicians play in addressing these issues?

The current state of healthcare in the U.S. is horrible at best, and for underserved communities, it's even worse. We rank 38th in the world in health outcomes and 55th in maternal mortality, which increases dramatically for underserved communities. Physicians must be integral to shaping social and public policies because these are the principal factors that influence people's health. At the same time, we need to develop a healthcare delivery system that serves everyone.

Dr. Pedro Joe Greer Jr. receives the Presidential Medal of Freedom from President Barack Obama during a ceremony at the White House in 2009. (Photo by Chip Somodevilla/ Getty Images)

"International Medical Graduates (IMGs) play a crucial role in bridging the primary care gap while also making significant contributions across a wide range of specialties"

6. What are your thoughts on medical education today, particularly in improving outcomes and addressing healthcare gaps? What role do IMGs play in this system?

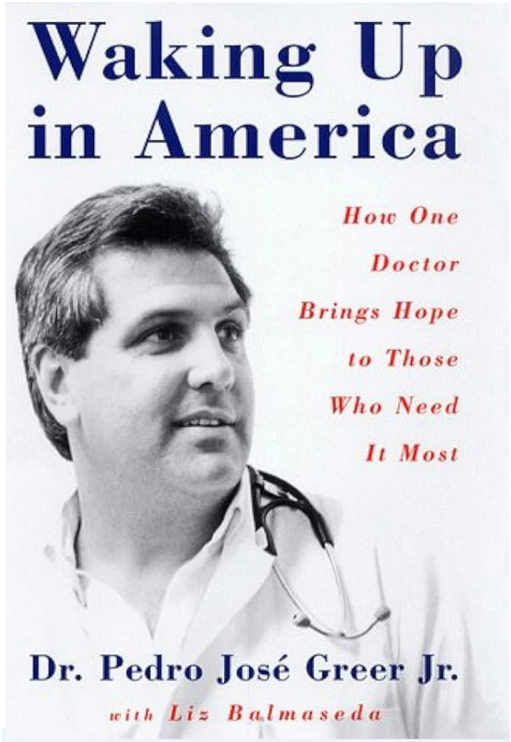
Improving medical education in the U.S. requires significant effort, particularly in increasing diversity, as it directly impacts health outcomes in underserved populations. International Medical Graduates (IMGs) play a crucial role in bridging the primary care gap while also making significant contributions across a wide range of specialties. The success of medical education should not be measured by patents or publications but by the health outcomes of the communities we serve. Additionally, the toxic aspects of medical education must be addressed if we are to re-instill essential virtues like compassion and empathy in our training programs.

7. You're currently working on opening a new medical school. Can you share your vision for this project and how it addresses Social Determinants of Health (SDoH) to improve care?

The project, the Roseman University College of Medicine, is hoping to open in 2025, pending preliminary accreditation from the LCME (Liaison Committee on Medical Education). Our program focuses on addressing Social Determinants of Health (SDoH) through a household-centered care model. Under physician supervision, students will follow two households over their four years of training, targeting households that are either uninsured or rely on Medicaid. Up to 90% of diseases in America are linked to non-biological factors (SDoH), and without addressing these through policy changes, meaningful improvements will remain elusive. Critical areas such as education, housing, living wages, and transportation are central to addressing these health challenges.

A stark example is Ann Case's report Deaths of Despair, which highlighted increasing morbidity and mortality rates in 2019 from suicide, overdose, and alcoholic liver disease. The most affected demographic was non-Hispanic whites, particularly among the boomer generation, with lack of higher education emerging as a key driver. Outcomes were tied to income, wealth, and other SDoH factors. As I approach the twilight of my career, my goal is to raise awareness that health outcomes are deeply shaped by social and public policies, and these must be addressed to create meaningful change.

"Up to 90% of diseases in America are linked to non-biological factors"



In his memoir, Waking Up in America: How One Doctor Brings Hope to Those Who Need It Most, Dr. Pedro "Joe" Greer Jr. recounts his journey from the son of Cuban immigrants to a pioneering physician dedicated to providing healthcare for Miami's homeless and underserved populations. The book details his establishment of the Camillus Health Concern in 1984, a free clinic for the homeless, and his relentless efforts to bring medical care to those living in the most impoverished conditions. Dr. Greer's unwavering commitment to ensuring that no one suffers or dies alone has significantly transformed Miami's healthcare landscape, offering a compelling testament to the profound impact one individual can have on addressing healthcare disparities and advocating for the marginalized.

Diversity, Equity, and Inclusion

"Show No Mercy," Says Texas to Its Hospitals

Recently, hospitals in Texas that participate in Medicaid or the Children's Health Insurance Program were put on notice that the Governor, Greg Abbott, wants them to collect information on the citizenship status of their patients. The executive order says the hospitals must ask patients if they are U.S. citizens or are lawfully present in the country. If not, data should be collected on the cost of caring for patients who are identified as being in Texas 'illegally'.

"Texans should not have to shoulder the burden of financially supporting medical care for illegal immigrants," Abbott said as he announced his executive order. Data are due next March.

I think this is a terrible idea. It risks public health, and it is offensive to the ethical requirements of medicine, which are to treat people regardless of citizenship and of their immigrant status especially when faced with medical emergencies.

In fact, that's what existing federal law says. Emergency rooms have to stabilize people and treat them without regard to their status, income, or anything else. The statute is called EMTALA, the Emergency Medical Treatment and Labor Act, and it is a piece of legislation that Congress enacted explicitly to stop hospitals from refusing very ill people who couldn't pay. In some cases, patients were just dumped outside the hospital, on the theory that those patients never really got into the emergency room, so there was no duty to take care of them.

Doctors, nurses, and EMTs should not be paying attention to the citizenship status of someone who needs care. I'm talking about emergency hospital care. They have the professional duty to help the community and to stand up for health. Why is that so? There are two reasons.

First, if you say the hospital is going to be collecting data on citizenship status, there are definitely people who are not going to come in. They're going to stay away from the hospital. They fear getting identified. These include people who are grievously injured and pregnant women. Many will not show up at the hospital and instead try to tough it out. That isn't the stance I think we should want the vulnerable sick to take relative to trying to get healthcare in a crisis.

The other problem is that, from a public health perspective, you don't want people afraid to show up at the hospital. If someone has a venereal disease or a severe case of the flu or measles you want that treated so it is not spreading in the community. If someone has an infectious disease, you want him treated. Also, if someone has an acute mental health problem, you don't want him going out and committing a violent act against somebody else because his mental health crisis was not addressed.

When you start to collect information on citizenship, you're putting public health at risk because you're saying we shouldn't treat people who aren't US citizens. If there are many people in Texas or other states who aren't US citizens, it doesn't mean they don't have infectious diseases or health crises that can put others at risk.

At the end of the day, there's certainly plenty to say and debate about immigration and citizenship status, but I think that belongs in the political sphere, the legislature and the courtroom. It doesn't belong in the emergency room. It doesn't belong at a hospital trying to figure out who's eligible for admission and who isn't in order to deliver care. Congress intended EMTALA to show mercy to the sickest. Texas and Florida, which has a law similar to that of Texas, are putting all Americans' health at risk by demanding proof of citizenship when the need for care ought to be paramount.

Put public health first in Texas; have the fight over immigration somewhere other than the ER.

Arthur Caplan, PhD

Dr. Arthur L. Caplan is a prominent American bioethicist, currently serving as the Drs. William F. and Virginia Connolly Mitty Professor and founding head of the Division of Medical Ethics at NYU Grossman School of Medicine. He earned his PhD from Columbia University and has held academic positions at the University of Minnesota, where he founded the Center for Biomedical Ethics, as well as at the University of Pittsburgh and Columbia University. Dr. Caplan has authored or edited over 35 books and more than 870 papers in peer-reviewed journals, contributing significantly to the fields of bioethics and health policy. His work has been instrumental in shaping public policy, including helping to establish the National Marrow Donor Program and creating the U.S. system for organ distribution.

Diversity, Equity, and Inclusion

Debbie's Dream Foundation: Pioneering Advocacy and Research in the Fight Against Stomach Cancer

Interview with Andrea Eidelman, CEO of Debbie's Dream Foundation (DDF)

Stomach cancer, though less common in the U.S. compared to other cancers, remains one of the deadliest globally, with significant health disparities among certain populations, including Asian Americans, Latin Americans, and veterans. Debbie's Dream Foundation: Curing Stomach Cancer (DDF) has been a pioneer in addressing this critical issue through advocacy, research, and education. Under the leadership of CEO Andrea Eidelman, DDF continues to lead efforts to improve outcomes and bring much-needed attention to this often-overlooked disease. In this interview, Andrea shares the foundation's impactful work and its vision for the future.

Q1 Could you share the history and mission of Debbie's Dream Foundation? What inspired its creation?

A Debbie's Dream Foundation: Curing Stomach Cancer (DDF) was founded in 2009 by Debbie Zelman, a passionate advocate and stomach cancer survivor. Debbie's vision was to improve outcomes for stomach cancer patients worldwide. Since its inception, DDF has remained steadfast in its mission to raise awareness, advance research, and provide critical education and support to patients, caregivers, and families navigating this devastating disease. Over the years, we've become a global leader in the fight against stomach cancer, pioneering advocacy and research efforts.

Q2 Why is stomach cancer such a critical global health issue, and how does DDF address these challenges?

A Stomach cancer remains one of the deadliest cancers worldwide, primarily due to limited early detection and treatment options. Recognizing this urgent need for progress, DDF has taken a multifaceted approach to combat the disease. Through advocacy, groundbreaking research funding, and international collaborations, we work to raise awareness and drive innovation in prevention, detection, and treatment.

Q3 Advocacy is central to DDF's mission. Can you elaborate on DDF's advocacy efforts and their impact?

A Advocacy truly lies at the heart of DDF's mission. In 2013, we launched the first Capitol Hill Stomach Cancer Advocacy Day, making us the first group to bring stomach cancer to the forefront of legislative discussions in Washington, DC. Since then, thousands of advocates have joined us to meet with lawmakers, resulting in substantial increases in federal research funding through the Department of Defense's Peer-Reviewed Cancer Research Program (PRCRP).

This February 23–25, 2025, we'll host our 13th Annual Capitol Hill Stomach Cancer Advocacy Day. This year's event will highlight a significant milestone: securing language in the Senate FY2025 National Defense Authorization Act (NDAA) to include H. pylori testing for Armed Forces members. This marks a crucial step in addressing a leading cause of stomach cancer and improving prevention efforts.

Q4 What are some of DDF's major contributions to stomach cancer research?

A DDF has funded over $2.25 million in research grants to date, underscoring our commitment to innovation. In 2024, we announced two significant research investments:

- A $250,000 grant to Massachusetts General Hospital (MGH). Their work focuses on overcoming treatment resistance in patients with malignant ascites, a challenging complication of advanced gastric cancer.
- A $551,880 fellowship at Memorial Sloan Kettering Cancer Center to support early-career researchers dedicated to improving outcomes for gastric and esophageal cancers.

These initiatives ensure that researchers have the resources they need to uncover new treatments and solutions, accelerating progress in the fight against stomach cancer.

Q5 DDF has a strong international presence. Can you discuss your global initiatives?

A Stomach cancer is a worldwide health crisis, and DDF has embraced a global mission to address this issue. In 2024, we partnered with KIBOUNOKAI, a Japanese stomach cancer organization, to enhance education and support services for Asian communities. Additionally, we expanded our programming with the International Gastric Cancer Educational Symposium in South America and collaborated with organizations like the International Gastric Cancer Congress (IGCC). These initiatives unite researchers, medical experts, and advocates from across the globe to tackle stomach cancer's unique challenges.

Q6 How does DDF engage the public and raise awareness about stomach cancer?

A Each November, during Gastric Cancer Awareness Month, we amplify our mission through campaigns, educational events, and our signature Illuminations Ceremony & Celebration Dinner. These efforts honor key contributors to the field and celebrate advancements in stomach cancer research and care. Locally and globally, DDF demonstrates that meaningful progress requires a united effort to raise awareness and drive critical research.

Andrea Eidelman, Esq.
CEO of Debbie's Dream Foundation

Andrea Eidelman, Esq., has been CEO of Debbie's Dream Foundation: Curing Stomach Cancer since 2017, bringing a lifelong passion for advocacy. A St. Thomas University law graduate, she championed underprivileged populations through Legal Aid work in Florida, notably aiding foster children via Permanency and Kinship initiatives. Before DDF, she supported terminally ill HIV/AIDS patients and led community projects for Kids in Distress and Broward Health. Originally from Buenos Aires, Argentina, she resides in Fort Lauderdale with her husband, Dr. Frank Eidelman, and their cat, Toby.

JOIN THE MOVEMENT

Pioneering the fight against stomach cancer worldwide!

OUR MILESTONES

- **2011:** Hosted the first Stomach Cancer Patient Education Symposium, now an annual event with global reach featuring expert lectures. Available online at our website.
- **2013:** Initiated the first stomach cancer Capitol Hill Briefing in Washington, DC, leading to the Annual Stomach Cancer Capitol Hill Advocacy Day. Efforts have significantly increased federal research funding.
- **2014:** Partnered with the American Association of Cancer Research, funding over $2 million in stomach cancer research and fostering opportunities for young researchers
- **2024:** Formed an international partnership with KIBOUNOKAI in Japan to enhance stomach cancer education and support in the Japanese and Asian communities.
- **2024:** Established a groundbreaking $551,880 fellowship at Memorial Sloan Kettering Cancer Center for early career researchers in esophageal and gastric cancers.

Debbie's Dream Foundation™
CURING STOMACH CANCER

www.DebbiesDream.org

Raising Awareness.
Funding Research.
Supporting Patients.
Achieving the *DREAM!*

BioHealth Industry Watch

Sustaining the Healthcare Workforce: Combating Physician and Nurse Shortages in America

The United States faces an escalating crisis in healthcare: a severe shortage of physicians, nurses, and other essential healthcare professionals. This workforce gap not only disrupts the delivery of quality care but also exacerbates inequalities in patient access and outcomes. As a long time hospital and nursing home administrator, including my tenure at Shaker Place Rehabilitation Center in New York, I have witnessed the profound impact of this issue. The urgency to address these shortages has been magnified by the aging population and the prolonged pressures after the COVID-19 pandemic. Through this discussion, we'll examine the underlying causes, explore the ramifications, and highlight strategies to ensure a sustainable healthcare workforce. Nexbiohealth's proactive efforts in fostering discourse on these matters, particularly the pivotal role of International Medical Graduates (IMGs), deserve recognition for driving change in this critical arena.

Physician Shortages: A Growing Concern

The physician shortage has reached alarming levels. According to the Association of American Medical Colleges (AAMC), the U.S. could experience a shortfall of up to 124,000 physicians by 2034. This deficit spans primary care and specialized fields, with rural and underserved areas bearing the brunt. Multiple factors contribute to this crisis. The aging U.S. population necessitates more complex medical care, while nearly 40% of active physicians are approaching retirement. Simultaneously, federal caps on residency funding create a bottleneck that limits the entry of new physicians into the workforce. Addressing these systemic challenges requires bold interventions to expand medical training capacity and incentivize service in high-need areas.

A Nursing Workforce Under Siege

The nursing workforce is equally strained. The American Nurses Association (ANA) projects that over 500,000 registered nurses will retire by 2027, a gap compounded by limited educational infrastructure. Burnout is a pervasive issue, driving many nurses out of the profession due to the physical and emotional toll. Several years of COVID-19 pandemic amplified these challenges, highlighting systemic vulnerabilities. Nursing schools struggle to expand due to faculty shortages and insufficient clinical training opportunities, further hampering efforts to replenish the workforce. Geographic disparities remain a significant concern, leaving rural and economically disadvantaged regions particularly underserved.

Addressing Mandated Staffing Levels

Even if health care facilities wanted to staff to mandated levels or what a patient would consider acceptable levels of staffing, there is just not enough staff today to accomplish this requirement/mandate. Health care administrations have no current mechanism to deal with the shortages of staff. When you tie in the fact that many facilities have unions, with outdated collective bargaining agreements, the massive amount of benefit time off only compounds existing staffing shortages. These mandates, while well-intentioned, often fail to account for the current realities of the labor market. Even facilities striving to meet these requirements are constrained by the lack of available workforce and the rigidity of outdated policies that prevent flexibility in staffing solutions.

Far-Reaching Consequences of Workforce Shortages

The implications of these shortages are profound and multifaceted. Patients endure prolonged wait times for appointments, delayed diagnoses, and treatment interruptions. Healthcare providers face increased workloads and stress, which further fuels attrition. Underserved communities, already battling with limited resources, experience widening health disparities, making equitable care a distant goal. This vicious cycle underscores the urgency of addressing these shortages holistically.

IMGs: A Vital Resource for U.S. Healthcare

International Medical Graduates (IMGs) are indispensable to the U.S. healthcare landscape. Often serving in underserved areas, IMGs fill critical gaps in primary and specialized care while contributing to the cultural and linguistic diversity of the healthcare workforce. Their presence improves patient outcomes and ensures that healthcare access is extended to those most in need. NexBioHealth's emphasis on IMGs and its role in shaping policy and integration initiatives are instrumental in mitigating workforce shortages. By streamlining visa processes, supporting educational equivalencies, and fostering professional development opportunities, we can more effectively utilize IMG to bridge healthcare gaps.

Comprehensive Solutions for a Sustainable Workforce

Tackling physician and nurse shortages requires a multifaceted approach. Expanding educational capacity through increased funding for residency slots and nursing programs is a critical starting point. Financial incentives such as loan forgiveness programs can attract healthcare professionals to underserved regions, addressing geographic disparities. Enhancing workplace conditions by improving staffing ratios, fostering work-life balance, and providing mental health support can help retain existing staff. Leveraging technology, including telemedicine and artificial intelligence, can extend the reach of healthcare services, especially in rural areas. Furthermore, empowering advanced practice providers like nurse practitioners and physician assistants to take on broader roles can alleviate the burden on traditional providers, enhancing overall system efficiency.

A Call to Action

The physician and nurse shortages in the United States represent a formidable challenge, but they are not insurmountable. Addressing these issues demands coordinated efforts from policymakers, educators, healthcare organizations, and communities. All stakeholders' dedication to fostering innovative discussions and actionable solutions is invaluable in this endeavor. By embracing bold strategies and leveraging diverse resources, including the contributions of IMGs, we can build a resilient and equitable healthcare system. Together, we must rise to meet this challenge, ensuring that quality care remains accessible to all Americans and securing the future of our healthcare workforce.

Larry I. Slatky

Advisor, W Medical Strategy Group
Healthcare Consultant, Larry I. Slatky, LTD. New York

Larry Slatky is a seasoned healthcare leader recognized for operational excellence and quality care. As Executive Director of a New York rehabilitation center, he turned a $15 million deficit into an $80 million renovation success, achieving national recognition, including 5-star ratings and Silver Quality Awards. During COVID-19, he eradicated the virus from the facility in just 10 weeks, safeguarding residents and staff. Larry's leadership extended to creating professional training programs in partnership with institutions like SCCC and BOCES. Formerly, he was EVP of Operations at NuHealth System, National Chair of the American College of Health Care Administrators, and a board member of the Epilepsy Foundation. He currently advises W Medical Strategy Group and consults through Larry I. Slatky Consulting.

BioHealth Industry Watch

Fostering Global Impact: KHIDI's Strategic Role in Advancing Healthcare Innovation

When you step out of the elevator on the 11th floor of the CIC (Cambridge Innovation Center) building in Cambridge, Massachusetts, the South Korean national flag, the Taegeukgi, greets you on the glass wall of the Korea Health Industry Development Institute (KHIDI) office. This symbol of Korea's commitment to healthcare innovation marks the U.S. headquarters of an organization dedicated to driving global collaboration in healthcare.

KHIDI USA: A Decade of Strategic Support

For almost two decades, KHIDI USA has been at the forefront of facilitating Korean healthcare companies' entry into the U.S. market. From biotechnology and medical devices to cosmetics and pharmaceuticals, the institute provides strategic support through market insights, connections, and resources. My role as the U.S. chief representative involves fostering these connections and ensuring that Korean innovators find their place in the competitive U.S. healthcare ecosystem.

Kendall Square: The Ideal Base for Global Health Leaders

In 2021, KHIDI strategically established its U.S. headquarters in Kendall Square, Cambridge—a hub renowned for its unmatched biotech and biopharma ecosystem. The area's proximity to prestigious research institutes and multinational corporations makes it a vital base for Korean biotech firms. Organizations like the Broad Institute, Pfizer, and Novartis shape a collaborative environment where ideas flourish and partnerships are born. Being part of this vibrant community helps Korean companies introduce their innovative R&D pipelines to global players and access collaborative opportunities.

The Korea Bio Innovation Center: A Launchpad for Success

Our operations extend beyond our office. KHIDI sponsors the Korea Bio Innovation Center, a coworking space located on the 14th floor of the CIC building. Currently hosting 17 Korean companies, the center provides an incubator-like environment for startups entering the U.S. market. Additionally, 13 more KHIDI-supported firms operate within the One Broadway building. These companies are part of the "K-Blockbuster Going Global Project," an initiative that provides funding, resources, and logistical support for their U.S. expansion.

Community-Focused Collaboration at CIC

What makes CIC Cambridge unique is its welcoming community and culture of collaboration. KHIDI's researchers and the companies we support have consistently highlighted the importance of CIC's inclusive atmosphere. Events like Venture Café's Thursday Gatherings and Tuesday breakfasts provide invaluable networking opportunities, fostering relationships that often lead to business partnerships. These gatherings also create a comfortable environment for non-native English speakers to develop their language skills.

Bridging Cultures Through Innovation

Beyond business, KHIDI actively promotes cultural exchange. Our annual Korea Bio Innovation Night showcases Korean traditions, music, and food, fostering cross-cultural appreciation among CIC's international community. This event underscores the institute's broader mission to merge innovation with cultural understanding.

A Platform for International Business Expansion

CIC Cambridge is more than a workplace; it is a global platform where organizations from various countries converge. With entities like Swissnex, Japan Desk, and Business France housed under the same roof, the building serves as a gateway to international collaboration. KHIDI's efforts to break cultural and linguistic barriers are enhanced by this dynamic ecosystem, allowing Korean companies to seamlessly integrate into global networks.

Strategic Collaboration for Future Growth

KHIDI's collaboration with CIC extends to major events like the annual BIO KOREA conference. Tim Rowe, CIC's founder, and CEO, has been an advocate for global innovation ecosystems, sharing insights during panel discussions and inspiring many Korean entrepreneurs to explore the U.S. market. These initiatives underscore the critical role that strategic partnerships play in the success of international expansion.

Unlocking Opportunities in Shared Innovation Hubs

For companies looking to expand globally, KHIDI's experience highlights the benefits of starting in shared workspaces like CIC. The flexibility and networking opportunities provided by such spaces allow businesses to gradually establish themselves while minimizing risks. As a cornerstone of innovation districts worldwide, CIC Cambridge offers an ideal launchpad for Korean firms entering the global stage.

From fostering cutting-edge innovation to bridging cultural divides, KHIDI's presence at CIC Cambridge illustrates the power of collaboration in advancing global healthcare. For any organization seeking to thrive internationally, Kendall Square stands as a beacon of opportunity, and KHIDI is proud to be part of its story.

Soonmahn Park, PhD.

Dr. Soonmahn Park is a distinguished leader in the medical device field with over 20 years of experience. He played a pivotal role in Korea's medical device industry, serving on the Medical Device Committee (2013–2021) and Policy Advisory Committee of the Ministry of Food and Drug Safety (2014–2020). Notably, he contributed to the 2019 Medical Device Promotion and Innovation Act. Since joining KHIDI in 2004, he has served as Executive Director of the Medical Devices and Cosmetics Industry Department and is now President of KHIDI USA, promoting healthcare collaboration between Korea and the U.S. Dr. Park holds a PhD in Electrical and Electronics Engineering and advanced degrees in biomedical engineering from Yonsei University.

Dr. Mun K. Hong's Reflection

PATIENT CARE SHOULD TAKE PRECEDENCE OVER ANY ARTIFICIAL DILEMMAS IMPOSED BY REGULATORY BODIES.

I was called to the ER as an elderly woman, who had suffered an out-of-hospital cardiac arrest and was found to have inferior ST-elevations on field EKG after successful resuscitation, was brought to our hospital. I was informed by my colleagues, who had heard about the patient, that I should recommend conservative management as there was constant scrutiny on hospital mortality statistics and she was at high risk for not surviving with or without any cardiac intervention. I was puzzled by this pre-emptive life or death decision making when none of us had seen the patient or talked to the family members. I rushed to the ER, where I saw an elderly person intubated and cardiac monitor showing ST elevations. Fortunately, she was hemodynamically stable and had concerned family members with her, one of whom was a cardiologist practicing at another hospital. He informed me that she was the matriarch of the family and they would like everything done. As a cardiologist he was also aware of the implications on the hospital reputation regarding the impact of mortality statistics, but he conveyed the family's wishes with the facial expression of uneasiness as the final decision was still up to me. I grabbed his hand and reassured him that I would be happy to take the patient to the cath lab and take good care of her. He shook my hand firmly and thanked me for the family regardless of the outcome. I was met with some passive-aggressive attitudes by everyone in the cath lab as they seemed certain that she would not survive and we were wasting our resources. It was a very uncomfortable feeling, given our mission to help patients first and not to be concerned as much about non-medical issues. Fortunately. I was able to promptly recanalize her occluded dominant right coronary artery. I went to the waiting room and informed the family that the procedure went well and hoped for the best as the outcome of these cardiac arrest patients depended more on their neurologic recovery rather than cardiac performance. They seemed both relieved and still concerned for their loved one.

As I did not take care of in-patients, she was sent to the Coronary Care Unit after the procedure and I didn't get to see the patient again until I had to visit another patient after a procedure on the step-down floor several days later. I heard much happy noise coming from a patient room and just happened to glance at the open door, when I saw the same patient surrounded by many family members, both young and middle-aged and they were having a fun family time. The cardiologist, who was a nephew of the patient, saw me and came out smiling, saying that she had made a remarkable recovery and that the entire family was so grateful that she had undergone the cath lab procedure. I was elated to hear about both her recovery and the impact it had had on so many family members. I promised myself then again that I would put the patient's health above any artificial dilemmas posed by non-medical issues. I also reminded myself that a patient's health does not impact just him or her, but the entire family and social network. Our mission and work become much more focused when we concentrate on patient care first rather than be influenced by artificial dilemmas.

Mun K. Hong, MD, MHCM, FACC

Dr. Mun K. Hong, born in Seoul, Korea, immigrated to America at age 15. He earned his BA-MD from Johns Hopkins University School of Medicine in 1986 and completed residencies and fellowships in internal medicine and cardiology at Johns Hopkins, Georgetown, and the Washington Hospital Center. Dr. Hong has held leadership roles, including Director of Cardiovascular Intervention at Weill Cornell and Chairman of Cardiology at Medstar Southern Maryland Hospital. He currently practices at Bassett Hospital Center as Chief of Cardiovascular Services. A dedicated mentor, he sponsored over 10 interventional cardiologists from Korea, helping them achieve significant academic success. During the pandemic, he earned an MHCM from Harvard. Dr. Hong enjoys family time with his wife of 37 years and their three children in New York City.

Journeys in Medicine

India to the US

NexBioHealth is privileged to feature Dr. Thiruvengadam Muniraj, a distinguished advanced endoscopist and leader in pancreatic and bariatric endoscopy at Yale University. As an International Medical Graduate with a remarkable journey from India to the U.S., Dr. Muniraj exemplifies excellence, resilience, and innovation in medicine. We interviewed him to explore his inspiring career path, his groundbreaking contributions to advanced endoscopy, and his advice for young physicians navigating the evolving landscape of healthcare.

How did your upbringing in India shape your career in medicine, and what values or experiences have stayed with you throughout your journey?

I grew up in Tamil Nadu, South India, where our home was part of an agricultural community. Life was simple and profoundly connected with nature, with the sounds of roosters greeting us each morning and cattle living in the same space as the family. My days often began before sunrise, accompanying my paternal grandfather to our farmland before school. We'd walk the fields together, observing the crops, discussing irrigation, and managing farm workers. What seemed like ordinary early morning chores at the time were actually lessons —they were a masterclass in responsibility, patience, and leadership. Through those routines, I learned that nurturing—whether it's a crop, a team, or later, a patient—requires effort, focus, and care.

As the eldest grandchild among more than a dozen cousins, I often accompanied my grandfathers. My maternal grandfather, a cotton merchant, taught me humility and generosity through his business dealings, earning trust and respect. In contrast, my paternal grandfather, a farmer, demonstrated resilience and resolve at farmers' markets, negotiating prices with confidence. Their differing styles shaped my approach to leadership—balancing empathy with strength, and listening with conviction Both men left profound imprints on my life. My maternal grandfather, despite his third-grade education, was one of the wisest people I knew, raising seven children and sponsoring others' education. His philosophy, "It's a privilege to help someone," became my guiding principle. My paternal grandfather, who farmed until 98 and lived to 100, embodied resilience in a rain-dependent agricultural community, teaching me perseverance through unpredictability.

My mother, meanwhile, was a quiet yet unshakable force. A working woman balancing career and family, she instilled in me the value of hard work and the unseen sacrifices of those who support us. Her dedication ensured I had the tools to succeed, reminding me that success is built on both talent and effort.

Early Leadership Lessons in Medicine

In my early career, I found myself thrust into a leadership role at a hospital in Coimbatore, the city where I grew up. The institution was struggling financially, and when its owner relocated to England, I was entrusted with managing both clinical and administrative responsibilities. Balancing the demands of patient care with the complexities of running a healthcare facility was a time of immense personal and professional growth. As an administrator, I was treated with deference and given special complaisance, not for who I was but because of the position I held. When the hospital was sold, and I returned as a clinician without administrative responsibilities, the dynamic changed dramatically—the privileges disappeared, and I was just another doctor in the halls. That experience was humbling and taught me a powerful lesson: the respect and attention tied to a position are fleeting and belong to the role, not the individual. True respect comes from character and actions, not titles or status. This realization strengthened my resolve to stay grounded and to always be ready to return to basics.

Being Tamil and What It Taught Me

Growing up, Tamil culture deeply shaped my identity and continues to guide me. In Tamil Nadu, hospitality is a cornerstone of daily life, epitomized by the heartfelt question, "Have you eaten?" (or "Saapittingala?"). This goes beyond a casual greeting; it's a genuine expression of care, reflecting a belief that no one should go hungry. Offering food or checking on someone's meal embodies a warmth that transcends social barriers, making everyone feel welcomed. This cultural value has profoundly influenced my approach to patient care. Small gestures, like ensuring a patient's comfort or asking if she needs assistance, mirror the spirit of Tamil hospitality, fostering trust and connection.

Even in professional settings far from Tamil Nadu, this deeply ingrained habit of genuine concern continues to shape my interactions. Whether offering a kind word to a colleague, checking on a patient's comfort, or simply asking if I can get someone a coffee, this caring instinct remains a guiding principle. It's a quiet but powerful reflection of Tamil culture, one that I carry with me wherever I go, reminding me that true connection begins with small, sincere acts of care.

Can you describe your transition from practicing medicine in India to the U.S.? What were the biggest challenges, both culturally and professionally, and how did you overcome them?

Most IMGs will have experiences similar to mine. The journey from practicing medicine in India to the U.S. was a transformative experience, filled with challenges, surprises, and moments of deep reflection. Each phase of my career—from my early days in an overcrowded government hospital in Tamil Nadu to rural private practice, from working in the Sultanate of Oman to navigating the U.S. healthcare system—has shaped how I see medicine and the world.

Practicing Medicine in India: Resourcefulness in Chaos

I began my training at a government hospital affiliated with Coimbatore Medical College, one of the busiest institutions in the region. The hospital often operated at five times its capacity. Patients filled every bed, lined the floors, and spilled into the corridors. I remember seeing entire families camping in the hallways to stay close to their loved ones. Despite the overwhelming numbers and limited resources, we made it work. We relied heavily on quick thinking, collaboration, triaging, and resource allocation to prioritize care. It was a constant balancing act, but those early days taught me how to make decisions under pressure, maximize the tools at hand, and work as a team to provide the best possible outcomes. There wasn't the luxury of advanced imaging or a plethora of medications, but what we lacked in technology, we made up for in ingenuity and dedication.

In 1997, I started my own private practice in Thekkalur, a rural village in Tamil Nadu, India. This was a different world entirely. Instead of the chaos of a government hospital, I had a more intimate connection with my patients in this close-knit community. I could take the time to hear their stories, understand their lives, and be part of their journey to recovery. I quickly realized that one of the most rewarding aspects of medicine is the feedback patients give —a smile, a heartfelt thank you, or the trust they place in you and often gifts in the form of farm produce. It was a reminder that medicine isn't just about diagnosing and treating; it's about building trust and being a part of people's lives. It's a privilege I carry with me to this day.

Practicing Medicine in Oman: Medicine Without Borders

After years in India, I moved to the Sultanate of Oman to work in a completely new cultural environment. Practicing medicine in an Arabic country was eye-opening in many ways. Patients and families in Oman had a profound respect for doctors but care

often had to align with cultural and religious values. Decisions were often a family affair, requiring me to carefully balance modern medical practices with traditions and beliefs. At first, it was daunting—I didn't speak Arabic, and I wasn't familiar with the cultural nuances. But I immersed myself in the environment, slowly learning the language and understanding the local customs and culture. I learned that the universal language of empathy and care could bridge almost any gap. Patients everywhere want the same things: to feel heard, understood, and cared for. While Oman had better resources than the government hospital in India, the emphasis was still on the human connection, and that resonated with me. My time there reinforced that medicine is universal, even if the context changes. Whether it's a family in Oman seeking reassurance through faith or a patient in India looking for hope in a crowded ward, at the core, people are the same.

One of the most memorable aspects of this role was supporting American troops stationed in the Omani desert, providing medical resources to their units. It was a unique experience that broadened my perspective on healthcare beyond cultural and geographical boundaries. Later, when I moved to the US, I received a letter of recommendation from a U.S. military commander for my efforts, which proved invaluable when I applied for permanent residency in the U.S., expediting my green card process. It was one of those moments that reminded you how the dots in life connect in ways you never anticipate—proof that every step has a purpose, even if you don't see it right away.

Transitioning to the U.S.: Adapting to a New System

Moving to the U.S. brought both opportunities and challenges. The system offered cutting-edge technology, structured workflows, and access to advancements I had only dreamed of. Adapting to its bureaucratic complexity, however—insurance, documentation, and administrative layers—was overwhelming. In India and Oman, physicians had more autonomy, whereas U.S. medicine emphasized team-based, protocol-driven care. This collaborative approach required adjusting my decision-making style and embracing structure.

The patient-doctor dynamic also differed. In India and Oman, patients deferred to doctors, while in the U.S., they are informed and actively engaged, fostering a deeper partnership through clear communication and education. The U.S.'s cultural diversity was both enriching and challenging. My experience in Oman had prepared me to approach care with cultural sensitivity and adaptability, skills that proved invaluable in navigating this new environment.

Challenges and Lessons Along the Way

Navigating the complexities of medicine in the U.S. presented new challenges, particularly in managing administrative hurdles such as insurance approvals and billing—issues rarely encountered in India. Each phase of my career—India, Oman, and the U.S.—offered invaluable lessons. From India, I learned resourcefulness and the art of doing the best with limited resources. Oman taught me the significance of cultural understanding and respect in building trust. The U.S. emphasized the importance of structure, teamwork, and patient-centered care. Ultimately, the most profound realization across all these experiences was that medicine transcends treating diseases; it is about understanding and connecting with people.

Coming to the US was never a part of my dream when I was in India. From walking the crowded wards of a government hospital in India to supporting American troops in Oman to practicing medicine in the U.S., each step has been a building block for the next. I often think of the letter from the U.S. military commander in Oman that helped expedite my green card. As Steve Jobs famously said, "You can't connect the dots looking forward; you can only connect them looking backward."

You've introduced several novel endoscopic procedures in Connecticut. Could you highlight one or two that had the most significant impact on patient care?

One of the most fulfilling aspects of my work at Yale has been pioneering several of the first-ever advanced endoscopic procedures in Connecticut, transforming care for patients with complex gastrointestinal conditions. For patients with Roux-en-Y gastric bypass (RYGB), whose altered anatomy makes traditional ERCP nearly impossible, I introduced the EDGE procedure (EUS (endoscopic ultrasound) -guided ERCP). This innovative approach eliminates the need for complex surgery, providing a safe, minimally invasive pathway to the biliary system, reducing recovery time, and offering new hope to patients with limited options. Another impactful advancement is EUS-guided interventions such as pancreatic necrosectomy, duct/lumen anastomoses and drainage. These techniques allow us to connect the pancreatic duct, bile duct, or small bowel to the stomach, perform gallbladder drainage for cholecystitis, and manage severe necrotizing pancreatitis—all without traditional surgery. These procedures have been transformative for high-risk patients, offering faster recoveries and fewer complications. Witnessing the profound improvement in patients' quality of life through these innovations is the most rewarding part of my work.

Dr. Thiruvengadam Muniraj with his wife: Dr Sudha Thiruvengadam, Internal Medicine, daughter: Harini, Sophomore in Columbia University, daughter: Tanvi, 2nd grade in Cheshire Elementary School

What drives your passion for advancing techniques and technologies in interventional endoscopy?

As mentioned earlier, my journey began during my medical training in India. Limited resources and overwhelming patient volumes taught me to think creatively, prioritize under pressure, and connect deeply with underserved communities. These experiences shaped my belief that medicine is not just about treating illness but innovating to improve care, even in challenging circumstances. This drive to push boundaries has remained constant throughout my career.

Today, with access to cutting-edge technologies in the U.S., my mission remains focused on improving patient outcomes while minimizing the physical and emotional toll of treatment. Offering less invasive, more effective solutions and witnessing patients recover faster and regain their quality of life is the most rewarding part of my work.

Interventional endoscopy thrives on curiosity and collaboration. I'm fortunate to work with four exceptionally talented advanced endoscopy partners who share a vision for advancing care. Together, we explore new techniques and integrate emerging technologies to meet the evolving needs of our patients. Every innovation represents an opportunity to reduce suffering and provide transformative care—an unwavering mission that began in India and continues in Connecticut.

As Clinical Chief for Endoscopy at Yale, how do you mentor and support aspiring physicians, particularly IMGs?

Mentoring the next generation of physicians, including IMGs, is one of the most fulfilling parts of my role at Yale. Having started my medical journey in India and navigated the challenges of transitioning across continents, I deeply relate to the hurdles IMGs face in adapting to new healthcare systems. Their passion, curiosity, and drive remind me of my own journey and inspire me to guide them.

I provide tailored mentorship, from collaborating on research projects to offering insights and advice through regular calls, often during weekends. I aim to help IMGs integrate into the U.S. healthcare system while embracing their unique strengths. Through Yale's IMG electives, I've connected with many talented candidates and remain invested in their progress. Watching them evolve and succeed motivates me to continually refine my own teaching and leadership, ensuring I provide the best possible guidance.

What is your vision for the future ofinterventional endoscopy and digestive health, especially in bariatric endoscopy? How do you see your work at Yale shaping the next generation of physicians and advancing the field of gastroenterology?

My vision for Yale Interventional Endoscopy is to transform digestive health through innovative, minimally invasive solutions, establishing our program as a national leader in advanced endoscopy not only in the Northeast but in the entire USA. Bariatric endoscopy, in particular, holds immense potential to combat obesity and its comorbidities. The rise of GLP-1 receptor agonists has revolutionized care, creating opportunities to integrate endoscopic therapies such as endoscopic sleeve gastroplasty (ESG) as complementary or alternative treatments, offering safer, less invasive options for

surgery. Refining these techniques will enhance outcomes and accessibility for patients. As Clinical Chief for Endoscopy, I am equally committed to cultivating the next generation of gastroenterologists. At Yale, we train advanced endoscopy fellows, immersing them in cutting-edge procedures and research. Beyond technical skills, I emphasize empathy, adaptability, and innovation, preparing fellows to address the diverse and evolving needs of patients. The passion and fresh ideas of young trainees inspire me to continue pushing boundaries and fostering transformative care.

Interventional endoscopy is at a pivotal moment, offering solutions that reduce the need for surgery, improve outcomes, and expand access. My goal is to ensure Yale remains at the forefront of this transformative field, driving innovation and shaping the future of gastroenterology.

Looking back on your journey, what pivotal moments or decisions shaped your career, and what advice would you offer to IMGs aspiring to establish themselves in the U.S. healthcare system?

Starting a rural private practice in India, moving to Oman, and transitioning to the U.S. were transformative milestones. Each step taught me resilience, cultural sensitivity, and the value of service. For instance, a recommendation from a U.S. military commander for my work in Oman expedited my green card, underscoring how life's dots connect in unforeseen ways. These experiences solidified my belief that medicine is fundamentally about people and connections, not just tools or techniques.

To IMGs, I would say: be resilient and adaptable. Focus on excelling in USMLE exams, gaining U.S. clinical experience, and building strong professional relationships. Highlight your global perspective as an asset, seek mentors who understand your journey, and embrace constructive feedback. With persistence and a growth mindset, you can navigate challenges, thrive, and make a meaningful impact in the U.S. healthcare system.

What message would you like to share with the readers of NexBioHealth about the importance of diversity, inclusion, and the role of IMGs in advancing U.S. medicine and healthcare?

I've witnessed it firsthand: the spark in a patient's eyes when she feels truly understood, when her language is spoken, and her culture is respected. IMGs bring resilience, global perspectives, and cultural competence, enriching patient care and creating deeper, more meaningful connections. Diversity isn't just a value—it's a catalyst for innovation and a cornerstone of empathy in medicine.

NexBioHealth's mission to empower young physicians aligns seamlessly with this vision. By showcasing the stories, achievements, and challenges of IMGs, the magazine amplifies diverse voices and promotes collaboration. It's not merely about representation; it's about inspiring and equipping the next generation of physicians with the tools to lead in an increasingly interconnected and globalized healthcare landscape.

Thiruvengadam Muniraj, MD, FACG, FRCP

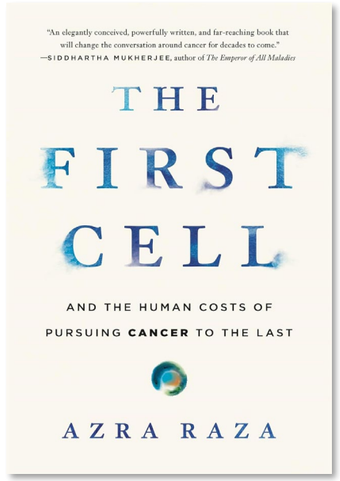
Associate Professor of Medicine (Digestive Diseases)
Vice-Chief (Endoscopy), Digestive Diseases; Director of Advanced Endoscopy, YNHHS; Associate Chief of Endoscopy, Digestive Health; Director, Yale Center for Pancreatitis; Director, Bariatric Endoscopy

Dr. Muniraj serves as the Clinical Chief for Endoscopy at Yale University School of Medicine and the Associate Chief for Digestive Health at Yale New Haven Health. He leads groundbreaking programs in advanced and bariatric endoscopy, introducing innovative procedures such like EUS-based gastrojejunostomy and advanced ERCP techniques, positioning Yale as a leader in the field.

A top graduate of Coimbatore Medical College, India, Dr. Muniraj served as an assistant professor of medicine and hospital executive in India and Oman before moving to the U.S., where he completed internal medicine training at the University of Pittsburgh and a gastroenterology fellowship at Yale, earning the prestigious Samuel Kushlan Award.

As a respected researcher, author, and educator, Dr. Muniraj has numerous publications and is a frequent speaker at international conferences. He is the Associate Editor of Gastrointestinal Endoscopy and a Fellow of the Royal College of Physicians, London. His career exemplifies the vital contributions of International Medical Graduates to advancing global healthcare and medical innovation.

The First Cell And the Human Costs of Pursuing Cancer to The Last



Authors
Azra Raza, MD

Dr. Azra Raza's The First Cell is a compelling call to rethink how we approach cancer care. Drawing from her extensive expertise as an oncologist and researcher, Raza critiques the prevailing focus on treating advanced disease rather than preventing it. Her compelling argument—to target the "first cell," the inception of cancer—challenges healthcare professionals to transition from reactive to proactive care. For young minds entering medicine, this perspective offers a profound opportunity to reshape their purpose, urging them to advocate for transformative changes in healthcare systems.

As someone committed to prevention and advocacy, especially in gastric cancer, Raza's vision strikes a personal chord. Prevention lies at the core of equitable healthcare but remains overshadowed by the focus on treatment. My own experiences in early detection and addressing disparities in underserved populations reflect similar systemic shortcomings. Raza's critique of the current funding landscape, which prioritizes incremental progress in late-stage treatments over preventive efforts, highlights the urgent need to redirect resources toward earlier interventions.

What elevates The First Cell is Raza's deeply human approach. Through poignant patient stories, she reminds us that medicine is fundamentally about people—not just protocols or statistics. These narratives challenge us to confront the social and systemic factors influencing health outcomes, offering lessons that extend well beyond oncology.

Reading The First Cell reaffirms the vital role of prevention as both a strategy and a moral imperative. For young medical professionals, the book serves as both a source of inspiration and a call to action, urging them to envision healthcare that is prevention-focused, equitable, and deeply rooted in humanity—an indispensable read for those shaping the future of medicine.

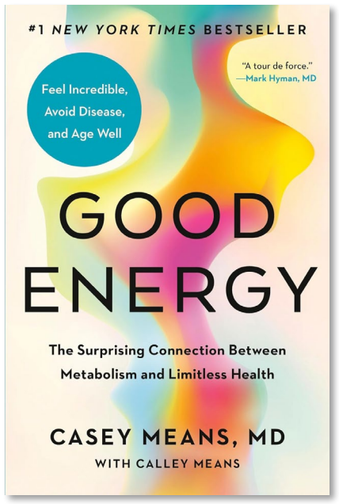
Chul Hyun, MD, PhD, MPH

Azra Raza, MD

Dr. Azra Raza is the Chan Soon-Shiong Professor of Medicine and Director of the MDS Center at Columbia University, specializing in myelodysplastic syndromes and cancer biology. An International Medical Graduate (IMG) from Pakistan and a graduate of Dow Medical College, she is an internationally recognized oncologist with over 300 publications. Dr. Raza is a passionate advocate for early detection, prevention, and patient-centered care in oncology.

Good Energy

The Surprising Connection Between Metabolism and Limitless Health



Authors
Casey Means, MD, with Calley Means (her brother)

Reportedly, the views of Casey Means, MD, have influenced the healthcare thinking of Robert F. Kennedy, Jr., HHS Secretary nominee. If so, Dr. Means's writings could shed light on the nomination's merits.

In Good Energy: ***The Surprising Connection Between Metabolism and Limitless Health***, Dr. Means criticizes modern agricultural and nutritional practices and, to a lesser extent, the role of pharmaceuticals in healthcare. She finds little to her liking. Dr. Means posits that the foods we consume, and the medications we take, create an internal environment as dangerous as the external one that RFK, Jr. has long condemned.

Dr. Means provides a book-length rap sheet against much of what we eat, especially "ultra-processed foods" and "refined added sugars", allegedly "addictive"; how our food is produced; and even indoor heating, cooling, and lighting, which in reducing our time outdoors limit our immune systems' vitality.

On these villains, Dr. Means casts blame for everything from acne to stroke. She prescribes foods she considers "natural," exercise, time outdoors, and a later start of the school day.

Dr. Means writes with clarity and zest, and she seems genuinely convinced of her arguments. Perhaps RFK found here a rationale for at least some of his claims. Dr. Means does not support Mr. Kennedy's assault on vaccination, though.

For those more scientifically trained than RFK, however, the book may prove less persuasive. At the Good Energy website, to which the reader is directed at the close of each chapter, no fewer than six options for purchasing the book, at least four highly favorable blurbs on its value, one by Dr. Means herself, a tool for subscribing to Good Energy Newsletter, and a gushing bio. Dr. Means promotes her company "Levels, a health technology company with the mission of reversing the world's metabolic health crisis." The support of companies touting supplements, fish oils, and foods Dr. Means presumably approves of is acknowledged. One can scarcely help contrasting the critique of those who profit from food sales and the promotion of that commerce which will feather the author's nest.

The link to "scientific references" is sandwiched among a variety of products Dr. Means created or promotes, but does present 58 pages of citations. Some are mere websites, but many come from real journals. Nowhere does one find a summary of the customary list of weaknesses in any paper cited, however, nor the sizes of trials, nor any estimate of their scientific rigor. Despite this reference list, the book is remarkably anecdotal, extensively discussing the author's mother's final illness, and the author's own personal health practices.

Dr. Means favors hyperbole. ("Hormones dictate all aspects of our biology…"). The best example may be her subtitle: this side of the pearly gates, "limitless health" is hard to find. In places, Dr. Means assumes what she must prove. The best example: her claim that food is addictive. If one applies the DSM-V criteria, that case is hard to make. Food, even highly processed food, is not fentanyl.

The most striking inconsistency is the author's attitude about hallucinogens. After taking psilocybin, she wrote: "…as I basked in the moon's bright rays, I experienced the embodiment of being one with the moon, every star, every atom in the grains of sand I was sitting on…" Yet, one page on, she writes: "The road to maximal well-being is not paved with more pharmaceuticals…"

Perhaps in RFK Dr. Means has an acolyte. But wholesale condemnation of western civilization, alarmist characterizations of Americans' diets, and especially the notion that our diets and poor exercise habits explain all the ills that flesh is heir to do not convince.

Joseph P. McMenamin, MD, JD, FCLM

Casey Means, MD

Dr. Casey Means is an American physician, author, and entrepreneur specializing in functional and holistic medicine, focusing on metabolic health and preventive care. She earned her BA and MD with honors from Stanford University, where she also served as class president, and completed head and neck surgery training at Oregon Health and Science University. In 2019, Dr. Means co-founded Levels Health, a digital health company dedicated to improving metabolic health through continuous glucose monitoring technology. Throughout her career, she has been featured in media outlets like The ***New York Times, Men's Health, and Forbes***, sharing insights on nutrition, metabolic health, and preventive medicine.

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- **Case Reports**
  Submit detailed reports of interesting or unusual cases that highlight unique challenges and solutions (1,000–2,500 words).
- **Reviews**
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[20%]
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Biologic product development at a game-changing pace

[6]
FDA-approved products[7*]

[6]
products currently in FDA review[7*]

[11]
products in development[7*]

Aiming for
[22]
approved biosimilars by 2030

*Statement accurate as of [August 2024].
FDA, US Food and Drug Administration; R&D, research and development.

KAMPANY (Korean American Medical Practitioners Association of New York)

Dr. Hyunjoon Lee, Current President and Dr. Sanghyun Alex Kim, Past President

Introduction

The KAMPANY has been a beacon of advocacy, community, and leadership for Korean American physicians in the tristate area. Since its founding in the 1980s, KAMPANY has evolved into a multifaceted organization dedicated to empowering its members while addressing healthcare disparities in the communities it serves. Through its annual health fairs, collaborations with other organizations, and initiatives to support the well-being of its members, KAMPANY has created an enduring legacy of service and leadership.

In this feature, we spotlight two key figures who have shaped KAMPANY's trajectory: Dr. Hyunjoon Lee, the current president, and Dr. Alex Kim, the past president. While Dr. Lee shares his vision for the future and the ongoing work under his leadership, Dr. Kim reflects on his accomplishments during his tenure and the lessons learned along the way. Together, their insights illuminate KAMPANY's enduring mission and aspirations for the future.

Interview with Dr. Hyunjoon Lee, Current President

Vision and Goals

As the current president of KAMPANY, what are your primary goals for the organization during your tenure, and how do you plan to address the challenges faced by Korean American physicians today?

As the current president of KAMPANY, my primary goal is to foster a vibrant and supportive community among Korean American physicians. We are incredibly diligent and hardworking, but too often, we work in silos. By bringing physicians together, we can create a community not only of excellence but also of camaraderie, where we can grow stronger while serving the community.

Community Impact

KAMPANY has been instrumental in supporting Korean American physicians and communities. Can you share any recent initiatives or projects that you feel have had a significant impact on healthcare access or education?

KAMPANY has always been committed to supporting healthcare access and education in our community. During the COVID-19 pandemic, we stepped up with massive drive-through testing efforts to meet the community's needs. This year, we provided health fairs at churches in Flushing and at Northwell Hospital, offering services such as blood pressure and diabetes screenings, flu shots, and specialist consultations. These health fairs make a significant impact by giving access to uninsured, undocumented individuals, and the elderly, who might not otherwise see a specialist.

We've also worked closely with the Korean American Nursing Association, providing lectures to educate nurses and mid-level providers, and collaborating during our health fairs. Expanding beyond the NY area is another priority, with plans for international medical trips to serve underserved populations. These trips allow us to give back globally while enriching our own perspectives and connections.

Future Directions

How do you envision KAMPANY evolving in the next five years, particularly in fostering collaboration among Korean American physicians and the broader medical community?

KAMPANY has been the leading nonprofit organization in the tristate area, dedicated to community-based work. We see ourselves as part of KAMA, a larger national organization, alongside two other groups in the tristate area. KNI focuses on supporting IMGs as they immigrate and settle in the U.S., while AKAM primarily consists of U.S. graduates gathering for networking and cross-referrals. Many of us are involved in all three organizations, and I would love to see these groups come together as one united community.

Our theme for the 2024 gala, ***Rise Up! Rise Together: Investing in Tomorrow's Leaders***, reflects this vision. I see KAMPANY evolving into a physician organization that not only serves patients but also mentors and inspires the next generation. We've been awarding scholarships to undergraduate and graduate students annually, and this year, we're introducing a special scholarship for a primary care track resident. Serving the community requires a special heart, especially when it comes to caring for our elders. I envision KAMPANY physicians becoming healthy role models for the next generation—leaders they can aspire to emulate.

Interview with Dr. Sanghyun Alexander Kim, Past President

Reflections on Leadership

Looking back on your tenure as president, what do you consider your most significant achievements, and how have they shaped KAMPANY's role within the medical community?

My most significant achievement has been fostering a stronger sense of community among Korean American physicians. By breaking down silos and encouraging collaboration, we have cultivated a network that thrives on camaraderie, mutual support, and shared goals. Strengthening our role as part of the larger national organization, the Korean American Medical Association (KAMA), and maintaining strong relationships with AKAM and KNI, we have expanded our network of physicians while creating opportunities for greater collaboration and impact.

Through initiatives such as health fairs and partnerships with organizations such as Korean Community Services, MinKwon, and the Korean American Nursing Association, we have significantly expanded access to healthcare in underserved communities. These efforts have demonstrated the power of unity in action, allowing us to make a tangible difference in the lives of countless individuals.

Lessons Learned

What were the key challenges you faced during your presidency, and what advice would you give to future leaders of KAMPANY to navigate similar situations?

One of the biggest challenges I faced was balancing the diverse needs of our members while ensuring that we stayed true to our mission. Korean American physicians are incredibly driven and busy, which sometimes makes it difficult to engage everyone effectively. To address this, I focused on creating initiatives that were both meaningful and accessible, such as smaller-scale health fairs and events that cater to specific interests.

Another significant challenge was navigating the aftermath of the COVID-19 pandemic. The isolation many physicians experienced, combined with the financial hurdles our organization faced, required strategic and empathetic leadership. Rebuilding trust and momentum took time, but it reinforced the importance of adaptability and perseverance.

My advice to future leaders would be to listen closely to the needs of your members and the community you serve. Be adaptable, and don't be afraid to think outside the box when addressing challenges. Most importantly, lead with empathy—it's the foundation of trust and collaboration.

Legacy and Influence

How has KAMPANY grown or changed since its establishment, and what do you hope your contributions have inspired in its current and future leadership?

Since its founding in the 1980s as an organization that courageously advocated for Korean physicians against larger forces that misunderstood and underestimated us, KAMPANY has become a beacon of resilience and leadership in the Korean

American medical community. What began as a group dedicated to protecting the rights and dignity of Korean physicians in New York has evolved into a multifaceted organization with a mission to uplift, connect, and empower its members.

Today, KAMPANY is more than a community-based organization—it's a force for good. Our initiatives span healthcare access and education, mentorship, international outreach, and personal development. These efforts reflect our commitment to not only serve the underserved but also to nurture the professional and personal growth of our members.

Conclusion

Through the perspectives of Dr. Lee and Dr. Kim, it is evident that KAMPANY is not just an organization but a thriving community dedicated to service, mentorship, and leadership. Their reflections and aspirations highlight the critical role KAMPANY plays in shaping the future of healthcare and the lives it touches. Together, they exemplify the resilience, vision, and unity that define the Korean American medical community.


KAMPANY Uganda Mission Trip 2024

Hyun Joon Lee, MD

Current President of KAMPANY

Dr. Joon Lee, triple board-certified in Family Medicine, Integrative Medicine, and Obesity Medicine, graduated from Yonsei University College of Medicine in 1999. She completed her residency and fellowship at Albert Einstein College of Medicine and earned a Master's from Columbia University. Specializing in personalized, integrative care, Dr. Lee treats chronic illnesses such as diabetes, autoimmune diseases, and cancer, with expertise in bioidentical hormone therapy. She is a member of the American Academy of Family Physicians, the American Board of Holistic and Integrative Medicine, and the Institute for Functional Medicine. Dr. Lee also serves as president of KAMPANY (2024-2025).

Sanghyun Alexander Kim, MD

Past President of KAMPANY

Dr. Sanghyun Alexander Kim completed his Colorectal Surgery fellowship at Mount Sinai Medical Center in 2005 and has since been a key member of its surgical faculty. Over nearly 20 years, he has trained fellows and residents in Colon and Rectal Surgery while focusing on Colon/Rectal Cancer, Fecal Incontinence, IBD, Robotic Colon Surgery, and Painless Hemorrhoidectomy. Renowned for expertise in TEMS and Robotic TAMIS for early rectal malignancies, he performs 80-100 robotic colon and rectal resections annually. Dr. Kim directs multiple satellite offices serving diverse populations, including Korean and Hispanic communities, and partners with organizations to treat uninsured and underserved patients in New York and New Jersey.

Reflection for the Anatomical Donor Ceremony

Leading up to the first day of the Cadaver lab, I imagined details of the life of my cadaver. How many children did she have? Who was her favorite grandchild? What kind of jokes made her laugh? I wanted her humanity to be set before me so that I would not, for a single moment, forget that this was a real human. We walked into the lab and there were some twelve odd metal tables on each side of the room. On each table, there lay a body entirely zipped in a white body bag. The group behind me unzipped their bag first and a gasp escaped me. I was unexpectedly hit with a storm of emotion. I was shaky and held back tears. I noticed silence in the room as every student stood in a self-granted moment of silence absorbing the shock of a sight so ghastly that one must take a moment to remind oneself of what we're doing here and more importantly, why we're doing it. As my classmates got ready to begin the dissection, my emotional overwhelm was only getting worse - my breaths was shortening, my hands were shaking, and my eyes clouded with tears. So, I tapped Dr. Titunick on her shoulder. She immediately left what she was doing, put her hand around my waist, and walked me outside. The moment we stepped outside the lab, I was sobbing. I did not expect to be this severely overwhelmed with emotion. As my breaths slowed down enough to talk, we chatted about our experiences with death and dying. We talked about how, as future doctors, we will get to care for these donors' children and grandchildren and give back to them that way. We talked about how no matter what after-death religious beliefs anyone holds, it is undeniable that there was once something in this vessel that no longer is. There were so many bodies. So many people. So many lives. All the emotions they've experienced. The wins, the losses, the draws. They experienced moments they never thought they'd get past. They've lost people who were a part of who they were. I hope they experienced genuine love and care. I hope they were able to genuinely love and care. I hope their families still think of them and carries the best versions of them around.

As I held my donor's wet, cold, and colorless hand, I hoped someone had held it when she was dying. I looked into her lifeless eyes and hoped the eyes that she last met were those of a loved one. I'm intimately touched by the fabric of human life. The divine in the human, is threaded intricately as to remain unspotted by the naked eye and only hinted at by a story, a symbol, or a feeling. It is seen with the mind's eye and experienced in the deepest parts of ourselves. It is where we go when we sleep. It is where we go when we die. It is where the light is.

Mariam Farag

MD Candidate, Class of 2028

Hackensack Meridian School of Medicine

Mariam is a first-year medical student at Hackensack Meridian School of Medicine. She earned her bachelor's degree in biochemistry from Hunter College in New York City. Growing up in Egypt until 2013 has privileged her with memories and experiences that have shaped who she is today. She is passionate about finding the hidden gems in people and being open to see the meaningful things that hide in plain sight. She's excited for the experiences that await her as she connects to her future patients!

Bridging Mentorship and Medicine for the Next Generation

Growing up in a Korean American household, Dr. Joseph Lee learned early on the value of community, cultural sensitivity, and compassion. Today, as a healthcare leader and mentor, he brings these lessons to every aspect of his work. By empowering the next generation of medical professionals, advocating for inclusivity and diversity, or addressing gaps in healthcare equity, he makes strides in his journey as a pediatrician in Chicago. In this interview, Dr. Lee shares his journey filled with career advice and insights on leading with purpose in medicine.

Can you share a bit about your upbringing and how it shaped your decision to pursue a career in medicine?

Growing up in a Korean American household, my values were deeply rooted in the principles of hard work, respect for elders, and the importance of community. My parents, who immigrated to the United States, instilled in me a strong sense of purpose and resilience. Watching their sacrifices to provide opportunities for our family gave me an early appreciation for service and perseverance, which are central to my identity today.

My faith also played a pivotal role in shaping my journey. From a young age, I was actively involved in my church, where I learned the importance of compassion, humility, and service to others. These values naturally aligned with my desire to pursue a career in medicine, where I could combine my passion for helping others with my faith-driven commitment to making a meaningful impact.

How do you approach mentorship, and what advice would you give to medical students and residents seeking mentorship?

Mentorship, to me, is about understanding the unique needs of each individual and helping him navigate his journey with clarity, confidence, and persistence. I believe in fostering an open and approachable dynamic where mentees feel supported, valued, and encouraged to take calculated risks. True mentorship goes beyond offering advice; it involves empowering individuals to recognize their strengths, embrace challenges, and grow into their fullest potential.

For medical students and residents, my advice is to be persistent in seeking out mentors who can provide diverse perspectives and insights. Mentorship does not always fall into place easily—it often requires determination and effort to connect with those who align with your goals and values. Reach out, ask questions, and be willing to follow up; the right mentors can be transformative in shaping your leadership journey.

As someone who has led diversity and inclusion initiatives, what strategies do you recommend for fostering an inclusive environment in medical education and practice?

My work on diversity committees at Rush University and the University of Chicago, along with my involvement in programs such as HPREP (Health Professions Recruitment and Exposure Program), have shown me the importance of creating opportunities for underrepresented groups at every stage of their Journeys. Ensuring diverse representation in leadership and decision-making roles is essential for reshaping institutional priorities to better serve students, providers, and patients.

Education is also critical. Providing training on unconscious bias, encouraging open dialogue, and sharing data to highlight disparities foster understanding and accountability. Through programs such as HPREP, I have seen how mentorship and exposure to healthcare professions can empower individuals from underrepresented backgrounds to pursue their goals.

What lessons have you learned from leading pediatric care for refugees at Cook County Health that could inform broader healthcare strategies?

Leading pediatric care for refugees taught me the critical importance of cultural sensitivity and understanding patient backgrounds. Refugee families often face unique challenges, from language barriers to trauma histories, which require an individualized approach to care. Collaborating with community organizations was essential to provide wraparound services, such as housing support and mental health resources. These experiences demonstrated the need for healthcare systems to adopt flexible, multidisciplinary strategies to address systemic barriers. Lastly, the quality of care is vastly improved by Spanish language abilities (although I am still a novice). I believe these lessons are applicable on a broader scale, as they highlight the value of holistic, patient-centered care.

With your background in mental health and pediatric care, what do you think are the most pressing challenges in addressing mental health among children and adolescents today?

The most pressing challenges include the stigma surrounding mental health, the lack of accessible resources, and the shortage of qualified providers. Children and adolescents often face barriers to receiving timely, appropriate care, particularly in underserved communities. Addressing these challenges requires integrating mental health into primary care, expanding telehealth options, and advocating for policies that prioritize mental health funding. As someone deeply committed to pediatric care, I believe creating safe spaces for open conversations about mental health is also crucial in reducing stigma and fostering early intervention.

Given your experience with public health and refugee care, what do you see as the biggest gaps in healthcare equity, and how can young physicians help bridge them?

The biggest gaps in healthcare equity include language barriers, limited access to preventive care, and the systemic inequities that perpetuate disparities. Young physicians can help bridge these gaps by advocating for policies that address these root causes, engaging with underserved communities, and pursuing leadership roles where they can influence change. My work with refugee care has taught me the importance of listening to patients' unique needs and collaborating with community partners to create comprehensive solutions. I encourage young physicians to adopt a similar approach to foster meaningful progress.

As someone with a strong focus on diversity and inclusion, how do you address resistance to these initiatives within institutions or communities?

Resistance to diversity and inclusion initiatives often stems from misunderstanding or fear of change. I address this by focusing on education and dialogue, sharing data on the benefits of diversity, and building relationships to foster collaboration. It's important to frame these initiatives as not just ethical imperatives but as strategies that improve outcomes for everyone. By highlighting shared goals and creating opportunities for open conversations, I've been able to build trust and move these efforts forward in meaningful ways.

Joseph Bokum Lee, MD

Campus Physicians of California, PC and Hamdard Health Alliance

Dr. Joseph Bokum Lee, a board-certified pediatrician, is the President of Campus Physicians of California, PC, and Chief Medical Officer at Hamdard Health Alliance, where he leads efforts to transform campus healthcare and refugee pediatric care at Cook County Health. He is also a senior healthcare consultant at Medcase Health and has served in diverse roles, including Medical Director for Rume Medical Group, urgent care physician at PMPediatrics, and general pediatrician at Associated Pediatricians, LLC, and Northwest Health-Porter Hospital, emphasizing mental health and telehealth. Dr. Lee completed his pediatric residency and dual master's in Public Policy and Health Administration at the University of Chicago, contributing to diversity and inclusion initiatives and holding leadership roles in the American Academy of Pediatrics, American Medical Association, and Illinois State Medical Society.

Embrace Your Heritage to Foster Empathy

Dear Mentor,

My name is Kendrick Yu, and I am currently a second year medical student at the University of Alabama at Birmingham's Heersink School of Medicine. Although I am not an international student myself, I have worked with international students and physicians that provided unique perspectives about their experiences in the U.S. Listening to their journeys, I was amazed at the effort and sacrifices they made to enter a system separate from home. Naturally, I had many questions. How did their cultural backgrounds affect their perspectives in approaching healthcare? What did they notice in the healthcare system their peers may not have realized or fully understood? How does a unique cultural identity intertwine in a professional environment? How can we implement our cultural identities into our professional Journeys? There are so many questions, and I was hoping you could illuminate your side of the story to answer a few of them.

Thank you for your time and guidance!

Kendrick Yu

MD Candidate, Class of 2007

University of Alabama at Birmingham Heersink School of Medicine

Kendrick Yu is a 2nd year medical student at the University of Alabama at Birmingham Heersink School of Medicine. He is part of the Student Advisory Committee as a Content Development Team member and is interested in sharing the unique perspectives of students and physicians in hopes to inspire and empower the current and future generations of health professionals. He is also interested in research related to patients with mobility limitations and health disparities in primary care.

Dear Kendrick,

Thank you for reaching out and for your heartfelt message. It's inspiring to see a student like you reflecting deeply on the intersection of cultural identity and medicine. I'm happy to share my perspective on the questions you've raised.

My cultural background is foundational to the way I practice medicine. Coming from a Latin American country, I've seen firsthand the challenges underserved communities face, from limited access to care to cultural stigmas about health. These experiences drive my commitment to advocacy and public health initiatives, particularly for the Latinx community. They remind me daily why empathy, respect, and cultural competence are critical in medicine.

Growing up in a different healthcare system and transitioning to the U.S. system gave me unique insights. For instance, I noticed disparities in preventive care and barriers that patients face, such as language, documentation concerns, and mistrust of institutions. These challenges are often invisible to those who haven't experienced them. They remind me of the importance of building trust and advocating for equity in patient care.

Embracing my cultural identity has been a strength and a responsibility. On one hand, it allows me to connect with patients who share similar backgrounds and provide care that feels more personal to them. On the other hand, it sometimes feels like an added weight to represent or educate others about my culture. Nonetheless, I see it as a privilege and an opportunity to make medicine more inclusive.

One good way to incorporate our cultural identities into our own journeys, professionalism, or career outlooks would be by celebrating our heritages and using them to empathize with others. Seek mentors who value diversity, and never underestimate the power of your voice in shaping institutional change. Whether through community outreach, advocacy, or education, let your background guide you in creating meaningful impacts. Authenticity is a strength—embrace it as you grow into the physician you want to become.

Thank you again for reaching out. I wish you the best in your journey through medical school and beyond. Feel free to connect if you have any further questions.

Warm regards,

Eleazar Montalvan-Sanchez, MD

Eleazar Montalvan-Sanchez, MD

Fellow Physician, Section of Digestive Diseases, Yale School of Medicine

Dr. Eleazar Montalvan-Sanchez attended Dowal College in Honduras and earned his MD from the Universidad Nacional Autónoma de Honduras. He has been actively involved in a range of research projects, including epidemiological studies, surveillance studies, and NCI-sponsored randomized clinical trials in collaboration with institutions such as UAB, Vanderbilt, and the Mayo Clinic. Dr. Montalvan-Sanchez has authored over 30 peer-reviewed publications, with a primary focus on gastrointestinal cancers. He serves as a liaison for the National Hispanic Medical Association, where he is committed to mentoring the next generation of Latino/a/x medical professionals and improving healthcare in Hispanic communities. During his internal medicine residency at Indiana University, he served on the Department of Medicine's Equity, Diversity, and Inclusion Committee. He is also a co-founder of the Latinx Association for Residents and Fellows at Indiana University and the founder of the Latino Colorectal Cancer Initiative of Indiana, which received an SCOPY Award from the American College of Gastroenterology. Dr. Montalvan-Sanchez recently joined Yale University as a Gastroenterology and Hepatology Fellow.

Navigating a New Horizon: Dr. Gyujeong Kim's Story of Adaptability and Ambition in US Medicine

Tell us a little bit about your educational experience and ultimately how you ended up coming to the U.S. to practice medicine.

After graduating from Systems Biology at Yonsei University in Korea, I was admitted to the College of Medicine at Kyungpook National University and completed my medical degree. During my fourth year of medical school, I found myself reflecting a lot on my future, especially with the ongoing medical strike in Korea, and became curious about what life in the U.S. might be like. Having lived in Korea for nearly 30 years, I was curious about life in another country and felt a desire to take on a new challenge in my life. I was also interested in experiencing the training environment and healthcare system in the U.S. So, driven by curiosity and a spirit of challenge, I decided to come to New York right after graduation to study for the USMLE. Looking back now, I realize I had no idea how difficult it would be for an international medical graduate to match or what life in the U.S. would be like, but I came to New York boldly without much knowledge. After coming here and preparing for the match for three years, I was grateful to match at the hospital I had always hoped for. Starting this year, I am working as an intern resident in the Internal Medicine department at Mount Sinai Morningside/West.

What are your future plans?

I matched into the Med/Geri track, so I will be completing three years of Internal Medicine training at Mount Sinai Morningside/West and one year of Geriatrics fellowship at Mount Sinai Hospital. After completing the fellowship, I am considering specializing further in areas such as Endocrinology related to Geriatrics or studying fields such as Elderly Women's Health. Ultimately, I hope to pursue a career in academia as a geriatrician. There are numerous career paths to consider, such as working in a nursing facility, focusing on elderly patients as a hospitalist, or specializing in palliative medicine. So, I'm planning to use these next few years to evaluate my options and decide which path best suits my aptitude and interests.

Dr. Gyujeong Kim

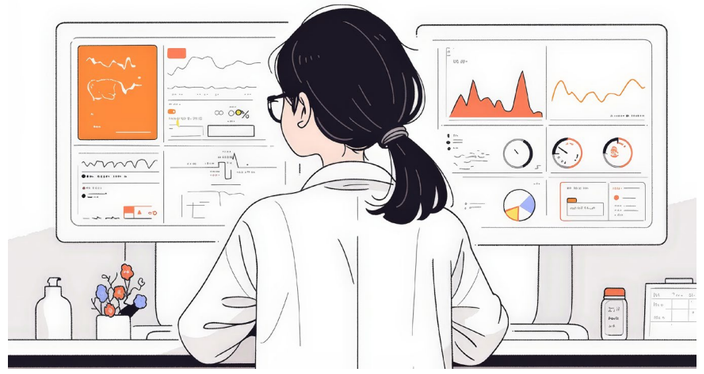
Meet Dr. Gyujeong Kim, a first-year internal medicine resident at Mount Sinai Morningside/West Hospital in New York City. Originally from South Korea, she has an inspiring journey that spans from studying Systems Biology at Yonsei University to earning her medical degree from Kyungpook National University, and ultimately taking the bold step of pursuing a medical career in the U.S. Her story highlights resilience, adaptability, and a commitment to exploring new horizons in medicine.

What advice would you offer IMGs who are looking to apply to residency outside of their country of origin?

Living in a different country and adapting to a new system is never an easy decision. Above all, one must keep in mind the inevitable challenges in areas such as immigration status, language, culture, and lifestyle. Being aware of these challenges can help one overcome difficulties as they arise and stay focused on one's goals. In particular, since the U.S. varies greatly by state and city, it's crucial to determine whether the place where one plans to train and live suits her well.

What are some things trainees should take into consideration as they make such an important decision?

If you've decided to take on the challenges and become a physician in the U.S., gaining extensive experience with the U.S. healthcare system and building a strong network are essential for matching and thriving as a future physician. For instance, I came to New York without knowing anyone, but I started by working at a private clinic, gradually expanding my network, and gaining diverse experiences through observerships and research in various settings. These experiences were invaluable during residency interviews and significantly contributed to my success matching into my desired program. This process is also a vital step in becoming an integrated member of the local community. For international physicians and medical students considering the U.S., I strongly recommend coming here as early as possible—time and finances permitting—to gain diverse experiences and familiarize yourself with the system.



Soonmyung Andrew Hwang
MD/MPH Candidate, Class of 2026
Icahn School of Medicine at Mount Sinai

Andrew Hwang is an MD/MPH candidate at the Icahn School of Medicine at Mount Sinai in New York City and a graduate of Johns Hopkins University. His academic and research interests lie at the intersection of neurology, public health and digital health innovation. Andrew has previously worked with organizations such as the World Neurology Foun-dation, Korean-American Medical Student Association, and RubiconMD, to contribute to projects and initiatives aiming to expand healthcare access and improve patient outcomes. He joined NexBioHealth as an inaugural member of the Student Advisory Committee to be a part of a creative effort in engaging the voices of students in the healthcare space.

UPCOMING CONFERENCE ALERT

ViVE 2025
Dates: February 16–19, 2025
Location: Nashville, Tennessee

Focus: Virtual Innovation and Visionary Exploration in healthcare, bringing together global visionaries for collaboration and showcasing cutting-edge technologies.

https://www.viveevent.com/

HIMSS Global Health Conference & Exhibition
Dates: March 3–6, 2025
Location: Las Vegas, Nevada

Focus: Innovations in health information and technology, featuring educational sessions, exhibitions, and networking opportunities.

https://www.himssconference.com/

Health 2.0 Conference
Dates: March 4–6, 2025
Location: Las Vegas, Nevada

Focus: Emerging technologies in healthcare, with discussions on digital health advancements and their impact on patient care.

https://www.health2conf.com/

American Academy of Dermatology (AAD) Annual Meeting
Dates: March 7–11, 2025
Location: Orlando, Florida

Focus: Dermatology, offering over 200 sessions and opportunities to earn CME credits.

https://www.aad.org/member/meetings-education/am25

American College of Cardiology (ACC) 74th Annual Scientific Session & Expo
Dates: March 29–31, 2025
Location: Chicago, Illinois

Focus: Latest discoveries in cardiovascular research, innovative technologies, and clinical practice updates.

https://www.expo.acc.org/ACC25/Public/Enter.aspx

Ukrainian Medical Association of North America (UMANA) 75th Anniversary Gala and XLVII Scientific Conference
Dates: April 25-26, 2025
Location: New York, NY

https://umana.org/event/umana-75th-anniversary-gala-and-xlvii-scientific-conference/

American Association for Cancer Research (AACR) Annual Meeting
Dates: April 25-30, 2025
Location: Chicago, Illinois

Focus: Advances in cancer research, including prevention, diagnosis, and treatment.

https://www.aacr.org/meeting/aacr-annual-meeting-2025/

Unite For Sight Global Health & Innovation Conference 2025
Dates: April 26–27, 2025
Location: North Haven, Connecticut

Focus: This conference is recognized as a leading event in global health and innovation, bringing together a diverse group of professionals, students, and innovators to discuss and develop solutions for pressing global health challenges.

https://ghic.uniteforsight.org/

Digestive Disease Week (DDW) 2025
Dates: May 3-6, 2025
Location: San Diego, CA

Focus: Latest research and advancements in gastroenterology, hepatology, endoscopy, and gastrointestinal surgery.

https://ddw.org/

Upcoming Issue

Exploring Medical Ethics

We are thrilled to announce that our May 2025 issue will focus on the increasingly critical field of medical ethics—a cornerstone of modern medical practice. Ethical principles are fundamental for navigating the complex challenges that healthcare professionals encounter daily.

This edition highlights an exclusive interview with Professor Arthur Caplan, a renowned bioethicist and the founding head of the Division of Medical Ethics at NYU Grossman School of Medicine. In this feature, Dr. Caplan delves into contemporary ethical dilemmas, explores the evolving role of ethics in patient care, and offers practical guidance on upholding ethical standards in healthcare.

In addition to this illuminating conversation, the issue will include a rich array of content, from in-depth medical reports to articles on diversity, equity, and inclusion (DEI), career development insights, and a vibrant Student Hub. These sections promise to provide valuable perspectives and knowledge for the entire medical community.

Arthur L. Caplan, PhD

Stay tuned for this engaging and thought-provoking issue, coming May 2025!

How do you stay human-focused while *AI* drives innovation in *Healthcare*?

- Reimagining the future of care delivery
- Driving innovation with purpose
- Navigating complexity with clarity