NexBioHealth

Shaping Futures

May 2026 | ISSUE 7

The New Global Health

NEXUS INSIGHTS

What Precision Prevention Misses

Value-Based Care: It Doesn't Mean What You Think

A Congressional Forum on Gastric Cancer Prevention

Advancing Global Health Through Innovation and Leadership

Reflections from GEEF 2026

The Future of Global Surgery Starts Here

The Fallacy of Resilience in a Global Health Context

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UPCOMING ISSUE

The Evolving Physician

Creating Healthcare Infrastructure Where Basic Systems Were Absent

Peter Smith, MBChB, DRCOG, DCH, MRCGP

Founder, Outreach EMR

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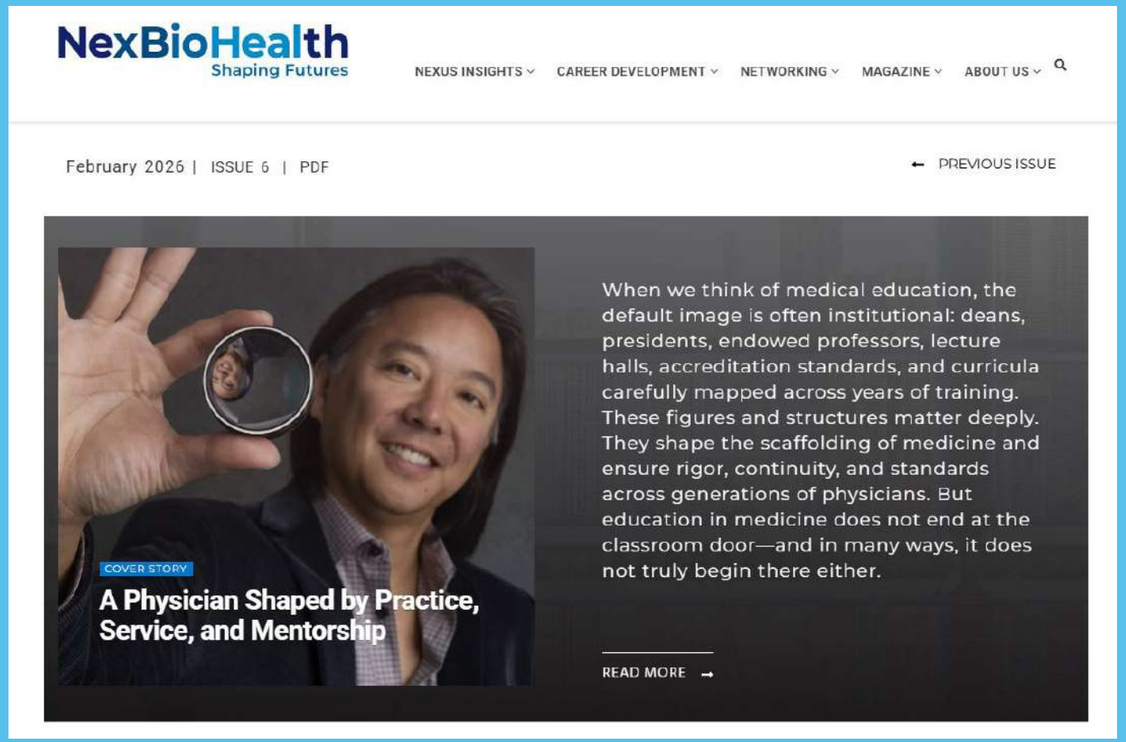
NexBioHealth: What Makes It Unique

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. Health Equity and Engagement:

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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EDITORIAL STAFF June Baik, Grace Ham, Kendrick Yu, Raveena Baskaran, Design Camp

MAIN OFFICE 2460 Lemoine Ave. #400P Fort Lee NJ 07024 — www.nexbiohealth.org Info@Nexbiohealth.org

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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:

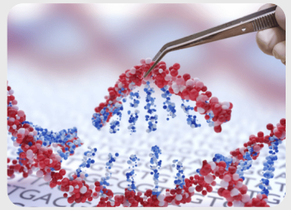
Our editorial board is in the beginning phase and continues to grow, inviting more great minds to join us in our mission. As we expand, we are committed to bringing together a broader range of expertise and perspectives to enhance the magazine's quality and impact. We seek thought leaders and innovators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

Creating Healthcare Infrastructure Where Basic Systems Were Absent Peter Smith, MBChB, DRCOG, DCH, MRCGP

Peter Smith, MBChB, DRCOG, DCH, MRCGP, is the Chairman and founder of Outreach EMR, a UK-based nonprofit organization focused on providing electronic medical record systems for underserved clinics in low-resource settings. After witnessing the absence of medical records during volunteer work in rural Uganda, he co-developed a simplified EMR platform now used across multiple countries in Africa to improve patient care, disease tracking, and public health reporting.



What Precision Prevention Misses: A Migration-Informed Approach to Risk

How migration, early-life exposure, and population mobility reshape disease risk beyond traditional prevention and screening frameworks.

Immigration, Ethnicity, and Health Disparities: Reflections from GEEF 2026

Global experts discuss migration, ethnicity, and emerging health disparities redefining prevention, equity, and the future of global health.

Value-Based Care; It Doesn't Mean What You Think

A provocative reexamination of value-based care, challenging conventional assumptions about risk, incentives, and the future of healthcare delivery.

The Future of Global Surgery Starts Here

An innovative surgical center in rural Uganda demonstrates how collaboration, telemedicine, and sustainability can transform global surgical access.

Advancing Global Health Through Innovation and Leadership

Dr. Kyoung Ryul Lee reflects on global diagnostics, sustainable healthcare partnerships, and innovation shaping the future of global health.

Why a Meaningful Nonclinical Career May Be in Your Future

Exploring how physicians can find purpose, leadership, and impact beyond traditional clinical practice through evolving nonclinical career pathways.

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From the Publisher

Chul S. Hyun, MD. PhD. MPH

Div. of Digestive Diseases
Yale School of Medicine

Dear Readers,

As NexBioHealth continues to grow, I am increasingly reminded that the future of healthcare will not be shaped by any single discipline, institution, or technology alone. Rather, it will emerge through collaboration across clinical medicine, public health, education, innovation, and global partnership. A central mission of this publication has been to create a space where these conversations can meaningfully intersect.

Among the most rewarding aspects of building NexBioHealth has been the opportunity to meet and learn from individuals working across remarkably different areas of medicine and healthcare. Although their experiences and perspectives vary widely, they are united by a shared commitment to improving patient care and advancing healthcare systems in meaningful ways. It has been both professionally and personally inspiring to bring many of these voices together through this publication.

As a theme-driven publication, NexBioHealth seeks to explore major forces shaping the future of medicine through interdisciplinary dialogue. This issue centers on global health, healthcare infrastructure, and international collaboration, while our upcoming issue will examine "The Evolving Physician" and the changing identity of physicians across clinical, technological, educational, and leadership domains. Through these conversations, we hope the magazine can serve as a thoughtful companion for physicians navigating an increasingly complex and rapidly evolving profession.

I am deeply grateful to our contributors, editorial team, collaborators, and readers for supporting this mission.

I hope this issue provides both insight and inspiration as we collectively work toward a more connected and forward-looking future in healthcare.

Chul S. Hyun, MD. PhD. MPH

From the Editor-in-Chief

Joseph P. McMenamin, MD. JD. FCLM

Christian & Barton, LLP

If variety is the spice of life, this issue is a hot chile pepper.

Our cover story describes the contributions of Peter Smith, founder of Outreach EMR, which has brought digital health infrastructure to unusual places. Dr. Smith estimates that by such improvements as tracking appointments and compliance, responding faster to epidemics, and many other mechanisms, EMRs can save 1.3 to 1.5 million lives annually countries such as Uganda, whose patients he has served for many years.

Uganda is also the home of Kyabirwa Surgery Center (KSC). Mount Sinai clinicians provide teleproctoring, enabling general surgery, gastroenterology, otolaryngology, gynecology, and plastic surgery even in remote settings.

Equally inspiring is the work of Kyoung Ryul Lee, MD, PhD. In 2003, Dr. Lee brought the first automated diagnostic laboratory to Mongolia, home of the world's highest age-standardized gastric cancer mortality rate.

Another high achiever is ophthalmologist Eric Hoyeon Song, MD, PhD., who discovered that the eye has its own lymphatic drainage system. He also engineered LS-VEGF-C, a therapeutic he is working to bring to patients through a company he co-founded. Yet Dr. Song somehow finds time to mentor younger doctors.

Our Editorial Team writes of the Stomach Cancer Task Force's second Congressional forum. SCTF works for gastric cancer prevention in high-risk populations and the policy pathways needed to support it.

Our publisher Dr. Hyun strikes a related theme in an article reprinted from Health Affairs. He observes that infections early in life, such as *hepatitis B* and *Helicobacter pylori*, can have serious consequences much later on.

Sing Hwi Hong, MD, MPH reports on a discussion of "Immigration, Ethnicity, and the Global Burden of Health," at the Global Engagement & Empowerment Forum on Sustainable Development. The lesson: migration is redefining disease distribution and challenging traditional approaches to global health.

Patrisha C. Lazatin, MD, MMSc argues vigorously that we should refuse the expectation to thrive in a situation that provides neither assistance nor resources. In recounting how Sierra Leone now has its first neurosurgeon, she admonishes us to "refuse to accept adversity."

We have not neglected business issues. Dr. Tom Davis provides clear insights into value-based care. John Jurica, MD lists over a dozen non-clinical roles that physician can consider in health systems, the biopharmaceutical industry, and writing and education.

Dr. Mun K. Hong candidly discusses "consistent lifestyle modifications" for his own recent diagnosis, leading to marked improvement in both physical and mental health.

In keeping with NBH's focus on students, we present two reviews of John Green's Everything Is Tuberculosis: one from an attending and one from a student. We also offer two mentoring stories: Koji Park, MD mentors a surgical resident; Paul C. Kang, MD, a 3d year med student. Raveena Baskaran interviews Dr. Swathy Karamchedu of her start-up Sleep Doodles. Two third-year med students converse about global health, and our KAMSA Specialty Spotlight interviews Dr. Sanghyun Alex Kim.

Your capsaicin awaits.

Joseph P. McMenamin, MD. JD. FCLM

Medical Report

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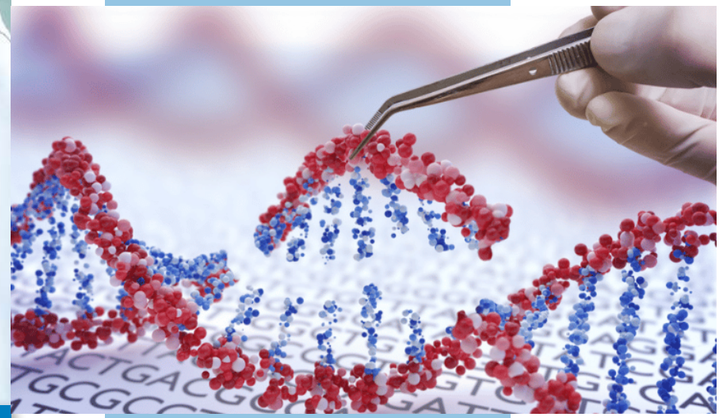
What Precision Prevention Misses: A Migration-Informed Approach To Risk



Chul S. Hyun, MD. PhD. MPH

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.

Over the past decade, health policy and clinical practice have increasingly embraced precision medicine. Advances in genomics, molecular diagnostics, and biomarker-driven care have transformed how disease is classified, diagnosed, and treated, reshaping expectations for individualized care and driving innovation across health systems. In parallel, the concept of precision prevention has emerged, emphasizing targeted preventive strategies based on differential risk. Much of this progress has focused on incorporating genomic, biomarker, and individualized risk information into prevention frameworks, extending the logic of precision medicine upstream. Yet, these advances have remained more aspirational than operational in most health systems, and they have not fundamentally reshaped how prevention is organized at the population level. Despite longstanding recognition that disease risk is unevenly distributed, prevention and screening continue to rely on age-based thresholds and static risk categories that implicitly assume homogeneous baseline risk. As a result, prevention often lags behind treatment in its ability to account for meaningful differences in how—and when—risk is acquired.

One important dimension of risk remains underdeveloped in contemporary prevention thinking: population mobility and early-life geographic exposure, particularly for conditions with long latency periods or early-life acquisition. Clinicians routinely ask about country of birth, childhood residence, prior health systems, and past exposures when assessing risk, and public health practice similarly recognizes that risk does not reset when individuals cross borders or relocate. Yet, this recognition remains largely informal. Decisions about screening eligibility and preventive interventions are rarely guided by

systematic assessment of life-course exposure histories, even when such information is readily available. Instead, migration-related risk is often handled through informal clinical judgment rather than explicit prevention logic, relying on disease-specific exceptions or narrow carve-outs rather than generalizable policy frameworks. This gap does not reflect a lack of evidence or awareness, but a broader disconnect between how risk is understood in practice and how prevention is operationalized in policy. By leaving migration and life-course exposure implicit, health systems miss an opportunity to align prevention strategies with what is already known about the origins of disease risk.

Migration As Life-Course Exposure

In health discourse, "migration" is often narrowly interpreted as synonymous with immigration status. This framing obscures a broader and more policy-relevant reality: Population mobility is a defining feature of modern societies. Migration includes international movement, but also internal relocation across regions with differing environmental and infectious exposures; transitions between rural and urban settings; and movement across health systems with distinct prevention infrastructures, screening norms, and patterns of care. Crucially, migration is not a demographic label or a proxy for social identity. It is an exposure history that can leave durable biological and structural imprints on disease susceptibility. Where individuals live during formative periods—and the health systems through which early prevention and care occur—can shape risk trajectories in ways that persist long after relocation. These exposures do not dissipate simply because an individual later resides in a different geographic or health system context.

Epidemiologic evidence consistently shows that risk for many chronic and infection-associated diseases is shaped early in life, often decades before clinical manifestation. For conditions with long latency periods, the temporal distance between exposure and disease onset can obscure the relevance of early-life geography in contemporary risk assessment. As populations become increasingly mobile, reliance on current residence as a proxy for cumulative exposure becomes increasingly tenuous. Risk travels with people, even when prevention policies remain place-bound. Importantly, recognizing the role of migration does not require granular exposure measurement or complex modeling. Broad indicators—such as place of birth, childhood residence, or prior health system context—are already captured—or could be readily captured—in clinical and administrative data. The challenge lies not in data availability, but in whether these signals are systematically incorporated into prevention decision making.

When Prevention Fails To Track Risk

The consequences of leaving migration and life-course exposure implicit are practical and predictable. Prevention systems misalign resources with how risk is actually acquired, generating missed opportunities and inefficiencies. Individuals whose risk was established early in life may enter the health system classified as average risk under conventional criteria, only to present later with advanced disease despite long-standing, identifiable exposure histories. At the same time, prevention policies may direct screening toward individuals whose baseline risk is comparatively low simply because they meet age-based thresholds. The result is a prevention paradigm that is simultaneously undertargeted and overinclusive.

A clear example is gastric cancer, in which risk is largely determined by *Helicobacter pylori* infection—designated a Group 1 carcinogen by the World Health Organization—typically acquired in childhood. Epidemiologic studies consistently show that individuals migrating from high-incidence regions retain elevated gastric cancer risk decades after relocation. Yet, US prevention remains anchored in age-based thresholds and symptom-driven evaluation rather than exposure history, leading many individuals with long-standing, identifiable risk to be classified as average-risk until late-stage diagnosis. A parallel pattern is seen in chronic *hepatitis B* infection, in which early-life acquisition drives lifelong risk of cirrhosis and hepatocellular carcinoma. Although screening and surveillance guidelines exist, implementation often depends on clinician awareness rather than systematic identification based on birthplace or early-life exposure, resulting in wide variation in prevention uptake despite well-established epidemiologic evidence.

These failures are not random. They reflect structural weaknesses across the prevention pipeline. Life-course exposure is often captured inconsistently at intake and relegated to unstructured clinical history that cannot be used systematically. Prevention guidelines rely heavily on age and current residence, offering little guidance on when early-life exposure or prior health system context should modify action. And because migration-informed risk remains implicit, health systems lack clear metrics to assess whether prevention strategies align with cumulative exposure rather than administrative convenience. While downstream treatment decisions grow increasingly individualized, upstream prevention continues to operate on coarse population assumptions, undermining the internal logic of precision medicine itself.

Toward Explicit, Migration-Informed Prevention

A migration-informed approach offers a pragmatic extension of precision medicine by shifting attention upstream from treatment optimization to prevention targeting. Rather than competing with genetic or molecular tools, it complements them by incorporating a dimension of risk that is often decisive and comparatively inexpensive to assess. What this approach requires is not disease-specific reinvention or rigid thresholds, but a clearer prevention logic. First, prevention frameworks must explicitly recognize early-life geography and prior health system context as legitimate, actionable components of risk assessment, rather than treating them as informal background information. Disease-specific guidelines can then operationalize this principle in ways that reflect differences in latency, exposure mechanisms, and preventive effectiveness.

Second, making migration-informed risk explicit improves accountability and evaluability of prevention strategies. When exposure histories remain implicit, prevention performance cannot be meaningfully assessed. Explicit incorporation allows health systems to evaluate whether prevention strategies align with epidemiologic risk shaped by life-course exposure, enabling systematic learning and refinement over time. Finally, for health systems, this approach offers a practical opportunity to improve targeting without expanding cost or complexity. Much of the relevant information already exists within clinical and administrative infrastructure. What is missing is intentional integration into prevention logic and policy—treating exposure history not as background context, but as prevention-relevant data.

Emerging analytic tools, including machine-learning–based risk stratification, could facilitate the operationalization of migration-informed prevention without introducing new clinical burdens. For example, routinely collected data elements—such as country of birth, age at migration, language preference, and prior health system contact—could be integrated into automated risk indices to flag individuals whose cumulative exposure history suggests elevated risk despite meeting conventional "average-risk" criteria. In this context, artificial intelligence does not redefine risk; it helps health systems consistently identify it at scale, transforming already documented but rarely actionable exposure histories into prevention-relevant signals.

Conclusion

Precision medicine has transformed diagnosis and treatment, yet prevention often remains anchored in assumptions that no longer reflect how risk is acquired across the life-course. Population mobility and early-life exposure shape disease susceptibility in durable ways, yet these realities remain largely implicit in prevention policy—with tangible consequences in conditions such as gastric cancer and chronic *hepatitis B*, in which failure to operationalize migration-informed prevention has contributed to delayed diagnosis and preventable morbidity despite decades of epidemiologic evidence. A migration-informed approach does not introduce new technologies or argue for narrow exceptions; rather, it makes explicit a dimension of risk that many clinicians already recognize but that health systems rarely operationalize. As medicine continues to invest in increasingly sophisticated downstream precision, comparable intentionality is needed upstream. Making life-course exposure visible within prevention policy is a necessary step toward ensuring that precision medicine fulfills its promise—not only in treatment, but also in prevention.

MEDICAL REPORT

Value-Based Care: It Doesn't Mean What You Think

By Thomas Davis, MD. FAAFP

Value-Based Care.

Among clinicians it's become a dirty word. It's come to mean a payment model in which total provider compensation is adjusted based on meeting specific measures for specific groups of attributed patients. Ostensibly created to decrease costs and promote health, in reality the selection of those measures is politically driven, their definitions overly complex, and the goals themselves unattainably high. It's seen by clinicians, quite rightly, as a way to justify the ongoing suppression of provider compensation. The model's near-universal use has understandably come to be treated with cynicism and disdain. So, when CMS announced earlier this decade that by 2030 the care for all Medicare and most Medicaid beneficiaries will be paid for through a spectrum of value-based care arrangements, fear was added the disdain.

Except, the model just described, the model most closely associated with the term "Value-Based Care" is not Value-Based Care at all. It's merely a bastardized form of Fee-For-Service. Call it "Metric-Based Care."

Real Value-Based Care is an entirely novel payment model thirty years in the making. It is specifically designed to reduce the growth in the rate of increase in care costs, to bend the "cost curve." For the Federal government, it does so by shifting the financial risk of covering Medicare and Medicaid care costs from the US Treasury onto the vast pool of trillions of dollars which underpins the global liability market. If it doesn't shift risk, it's not Value-Based Care.

Once it's universal and mandatory, it will change the shape of our world. And those who understand it will benefit the most.

A "Risk-Shifting" Model

Whenever a third party is engaged to cover healthcare costs, there are two specific terms which must be considered, the actuarial expense and the actual expense. These can be more simply thought of as what care "should" cost and what care "does" cost. In healthcare, these two numbers can be very different.

Ideally, the third-party payer will set specific limits on the amount paid for an episode of care. But healthcare is an unusual service; emotionally charged, heavily litigated, and difficult to externally value. The result is a strong predilection for generating its own demand. The more a clinician does, the more a clinician can justify doing, generating substantial additional liability for any guarantor. Surveillance imaging. Additional therapy. Multiple follow ups of incidental findings. These are gray expenses, historically very difficult to control at a distance.

Since the advent of third-party payment, medical care has been, in fact, one long "cost struggle" between the payer and the provider. The tighter the payer tries to regulate and reduce expenses, the more aggressive the provider is in generating additional expense to compensate. The actuarial, or calculated, cost of care remains steady, while the actual cost of care soars.

In this conflict the provider has distinct advantages. Influential, trusted by the beneficiary, credentialled and present at the point of care, every new attempt at cost control can be countered by the provider with the delivery of additional care, causing care cost growth rates to accelerate faster with each attempt. And as individual providers have transitioned into corporate health systems skilled in billing, costs have increased even faster still. Guarantors have been forced to push back with ever more onerous cost control tools. The result is the unsustainably dystopian "system" of care delivery we suffer today.

But give CMS some credit. By the early 1990s, this was all clearly foreseen. Specifically, at that time, the government had spent a decade trying to curb cost growth by creating an entirely new measure of valuing medical service, the Resource-Based Relative Value Scale (RBRVS). Not only was it costly, it also miserably failed. Providers compensated for reduced payments by increasing utilization, and care costs only accelerated faster. CMS was forced to recognize that no modification of the FFS payment model was ever going to bend the cost curve downward. The provider's advantage was simply too great. The result was a strategic decision, the existential impact of which we are feeling today.

A Major Change

The Federal Government decided to shift the financial risk for actual financial cost of care from itself onto someone else. CMS would still manage the program, and the Treasury would still fund the actuarial cost of care. But the difference between what care should cost and what care did cost would be shifted onto the shoulders of someone else.

The most likely candidates were the private risk-bearing entities offering commercial health insurance to businesses and the public. But those organizations knew quite well the FFS model was unsustainable. As huge as the opportunity might be, they would not accept such risk without some model that would allow them to actually control costs.

Enter the HMO.

In an HMO the beneficiary selects a specific clinician, called a primary care provider or PCP. The PCP coordinates all the beneficiaries' covered care. What the PCP could not do, they referred out. To assist in cost-control, the PCP was given "gatekeeping" authority. Only care approved by the PCP themselves was covered by the payer. In exchange, the PCP is paid a single monthly stipend for each of those attributed patients. No additional FFS charges were allowed.

The model had been around for more than a century, but in its modern iteration, beneficiaries accepted the limitations in access in exchange for dramatically decreased premiums. Around 1990, the care cost rise in response to the introduction of RBVs was hitting full force, so commercial HMOs provided a popular alternative to standard insurance arrangements. In practice, the model proved devastatingly effective in reducing care costs. And for that reason, the care delivery industry worked hard to delegitimize it and make it politically unpalatable.

The Government Noticed

HMOs were far too toxic for CMS to implement directly. Consumers choosing HMOs to reduce their premiums was one thing, the government mandating them on seniors was something else. But HMOs did

offer a path through which private insurers could reasonably expect to succeed where the FFS model had failed. And thus risk-shifting, christened in government-speak as "Value-Based Care" was born.

Insurers are "risk-bearing entities," (RBEs). RBEs are tightly regulated business arrangements which promise to compensate their customers for certain losses incurred under defined circumstances in exchange for a fee. To ensure that they can pay off their claims, RBEs are required to hold aside a significant number of financial reserves invested in the safest assets. To further protect themselves, RBEs spread their liability and generate additional revenue on their reserves by reinsuring each other against losses, paying each other premiums to offset the expense of that risk. And then those reinsurance arrangements reinsure each other again. And so on, until our entire world is supported by one vast spiderweb of reinsurance arrangements, funded by trillions in reserves and all designed to support each other against excessive risk. Those reserves and the system it supported were more than robust enough to take on the financial risk of the government's trillion-dollar healthcare promises. That is as long as they could make a profit from doing it.

Capping Resources

In its essentials, Value-Based Care for Medicare and Medicaid can be seen as a model which shifts the financial responsibility of the real cost of care from the US Treasury onto the shoulders of this vast insurance resource. Under FFS, there is no theoretical limit to the number of dollars a given beneficiary can generate for a provider. There's certainly a practical limit for a specific clinician, but a health system employing thousands of clinicians can legitimately literally bill millions of dollars per patient per year. Add in illegitimate billings and the number can be much larger.

No longer.

Under VBC, the resources available to cover the annual care costs of a given beneficiary are capped, usually at around $15,000. Do more, and whoever is shouldering the risk bears the cost. Losses may be covered by reinsurance at first, but it will take only a few cycles of adverse experience before an underperformer is dropped like someone who has wrecked their car one too many times. As we will see, this funding transition from the bottomless, politically driven U.S. Treasury to a finite pool of dollars run for profit will have profound impacts which our industry has not yet begun to foresee.

Building The Model

CMS created what were essentially HMOs on steroids. CMS would pay a private insurer a guaranteed monthly payment for each beneficiary, one which would cover the actuarial cost of care, i.e. what the beneficiary's care "should" cost. If the beneficiary's actual care costs came in under the payment, the insurer could keep the difference as profit. If not, the insurer would be responsible for any deficit. To ensure he stayed in business, the insurer would re-insure themselves against any adverse experience just like they would for any other coverage. Margins could be tight, but given the size of the program, an insurer who controlled costs could do very well indeed.

But shifting risk onto the insurers was only part of the battle. A successful model depended on motivated beneficiaries, voluntarily engaged. HMOs had attracted beneficiaries due to their much lower premiums. CMS did not have those tools, but they could broaden benefits to attract beneficiaries into the program. It was an approach which proved very effective and when the program was announced enrollment far exceeded expectation.

Further changes were required to get the providers on board. HMOs had a bad reputation for both generating operational challenges and parsimonious monthly payments. So, to ensure the model was attractive, CMS liberalized contracting rules so that insurers could shift some or even all the financial risk onto the providers themselves, especially the PCPs. PCPs were given gatekeeping authority to control costs; no outside care could be sought by a beneficiary without their approval. And such authority was needed as the entirety of the PCP's compensation would depend on managing the care of a group of patients for fewer dollars than the government paid and keeping the difference.

In this model, all the advantages providers possessed in the FFS "cost struggles" against payers would be stood on their heads. The insurers would now have an agent, on the ground, at the point of care with fully aligned incentives to remove over-utilization and promote health. And since the cost benefits of good health multiplied over time, PCPs were incentivized to maintain long-term relationships with the patients who they helped stay healthy.

By putting PCPs at financial risk for their own labor, by essentially treating the entirety of a beneficiary's care as one giant case rate, all the incentives for providers to over-utilize would be removed. PCPs would only generate a financial return if they promoted health and optimized care.

It was an inspired design.

An Excellent Start

Insurers, at first, wanted no part of taking risk. The early arrangements had them take a fixed percentage of the government's monthly payment. They passed on the rest to the attributed PCP or their employers to form a pool of dollars from which care costs could be paid.

The PCPs who took such risk did amazingly well. There was so much fat in the system and the bias for over-utilization so strong that immense reductions in costs could be realized with very little effort. Most such PCPs reinsured themselves against catastrophic loss using surprisingly affordable stop-loss insurance protection. The result was compensation many multiples of what they would have earned under FFS. And the overall savings to CMS for those beneficiaries was beyond any projections.

Interestingly, health systems who also took the opportunity did quite poorly. They paid PCPs RVU rates, perpetuating the conflicting incentives of FFS. The PCPs had no incentives to reduce costs, those health systems were quickly in a deficit, lost their reinsurance coverage, and dropped out.

With experience, payers became more comfortable to accepting risk under the program. They also understood that to succeed, PCPs must be directly tied to the financial performance of their attributed patients. Most contracts today are "shared-risk," where the insurer and the provider each shoulder financial responsibility in approximately equal measure. Such contracts usually mandate risk-share compensation arrangements with PCPs, understanding that the health systems default approach of treating such clinicians as piece-workers results in losses for everyone under VBC.

Optimized for Growth

It only took a couple of years' experience for CMS to recognize that it had innovated a winner. Their pilot was quickly codified into law and a significant number of beneficiaries and providers enrolled. But as the first movers and early adopters fully came on board, growth soon stalled. So, CMS began a process of optimization which continues to this day.

To add resources responsibly to the program, they tied the monthly premium CMS paid to the insurers to the beneficiary's own disease burden as defined by their submitted ICD codes. This had the unfortunate effect of putting the PCPs and insurers at moral hazard as they could increase their revenue by fraudulently submit codes that weren't supported.

For decades, this politically protected fraud more than masked any cost savings. It was not until the recent advent of AI-driven audits that fraud began to be brought under control, and the bending of the cost curve again began to be seen. Risk-coding did, though, have the salutary effect of incentivizing health systems back into the game, as most already had coding fraud embedded in the business model. This increased the number of participating providers and broadened public acceptance.

A quality rating period with bonuses was also introduced to maintain standards. It too was the source of much fraud, but it also did much to enhance the reputation of the model.

Helping Along The Journey

CMS also realized that most of its contractors weren't capable of accepting the full risk of care costs. So, CMS created a steppingstone of payment arrangements designed to slowly move organizations forward. You know them as Accountable Care Organizations or ACO. Starting with shared savings, where only 5% of the risk is shifted, ACOs offer a spectrum of risk-sharing relationships specifically designed to nurture contractors and move them along the path to CMS' ultimate goal; accepting full financial risk for the cost of care.

When seen in the context of government policy and fiscal reality, the journey and goal of Value-Based Care becomes clear. And despite wild political swings, CMS has stuck with it. First in 2015 and as recently as 2023, CMS explicitly stated that by 2030, all of Medicare and most of Medicaid will be paid for under some form of attributed, risk-shifting arrangement, with the unstated goal of moving everyone to full-risk as rapidly as possible. And since under the ACA the commercial insurers are essentially government utilities, where Medicare

and Medicaid go, the private payers will quickly follow. VBC will be normalized, universal and mandatory.

That's Value-Based Care.

Limited resources. Shifted risk. Realigned incentives.

Among the implications

- Coordinating delivery and promoting healthy habits will become more valuable than delivering care.
- Interventions, including preventative ones, will be judged on efficacy and not on how much revenue they can generate.
- Compensation between primes and specialists will be realigned. To succeed at VBC, PCPs will have to be placed at some financial risk for their care decisions with the opportunity to earn commensurate financial rewards.
- PCPs skilled in patient engagement and management will become more valuable. Specialty clinicians skilled in procedures relatively less so; to the point that their relative compensation will approach parity.
- Inpatient and specialty services will transform from centers of revenue to centers of expense, necessary evils.
- Innovation in care delivery, currently stagnant, will be rewarded; over-investment in expensive, gleaming palaces of healing punished.
- Because the value of each beneficiary is capped, gross revenue can only be increased by increasing the number of beneficiaries attributed to a given provider. Competition for beneficiaries among the members of the currently consolidated medical care delivery cartel within a given market will become fierce. The subtle collegial cooperation and collusion of today will become a thing of the past.
- Emphasis and incentives for healthy living will take the lead. Since healthcare represents a lion's share of the economy, every other sector; agriculture, leisure, advertising, will also undergo profound change, reorienting towards real health.
- Opportunities will appear for specialty groups to accept case rates for the delivery of a specific set of services for a defined population over time.
- As interventions decrease and attributed physicians bear the expense of adverse outcomes, Iatrogenic injuries to patients will greatly diminish.

And perhaps most importantly of all, existing health systems will not survive. Most of their care delivery infrastructure; physical, managerial, and mindset, is mono-culture, entirely devoted to FFS and thus through-put. Those processes are the antithesis of what is required for VBC success. Their clinical advisors are chiefly specialists, who are focused on their dwindling piece of the compensation pie. The debt their FFS free cash-flow has enabled, invested in commercial real estate and other dead-end ventures will become insupportable.

Much like Amazon replacing Sears, it will be outside providers and organizations, innovating de novo, without legacy costs and mindsets, which will succeed in this new world of VBC.

Skepticism

The easiest refutation of the doubters lies in the financing of Medicare itself. Seven-year rolling Medicare expenditures alone are predicted to almost treble by 2037 to $15T. The real number is probably much more, as such estimates have always fallen far short of the mark. Care payments are already unsustainably low. Clinicians who can are fleeing to the much more lucrative model of cash pay. The industry has already reached the point that the dollars available are insufficient to safely staff for services. What will happen when the government has to print trillions more?

So, if the government wishes to continue the political benefits of offering care coverage, and it very much does, it must find a sustainable path to pay for it. 30 years ago, it chose Value-Based Care. If that choice survived the wild political swings since, it's much more reasonable than not to assume it will follow fully through.

What You Can Do

Here's your action items to prepare yourself

- Increase your value by developing additional services with valuable outcomes which you can offer cost-effectively
- Understand your role in the new, cost-shifted world. Specialists transform into centers of expense. Their value lies in decreasing that expense. That means less doing and more sharing of expertise through collaboration. Build those collegial networks and nurture your reputation as a collaborator.
- Clinicians, especially PCPs, should educate themselves on the skills of influence and persuasion. It will not be enough to provide excellent care; you will be compensated based on how effectively you can convince your patients to comply with your recommendations. Taking the Dale Carnegie Course is the best place to start. That will help specialists with the previous bullet point as well.
- Build an understanding of actuarial science. Under VBC, real financial security can be found in accepting a portion of the cost risk for a defined portion of those costs; e.g. cardiologists caring for a group of CHF patients or surgical orthopedic care for a given population. The ability to anticipate costs and price such arrangements correctly, rare among clinicians, will be a decisive advantage.
- If all this is too overwhelming, consider taking your expertise outside to the cash pay world.

The Only Prison is Fear

Chances are in discussions of Value-Based Care you have heard nothing of its implications, certainly nothing offering this level of understanding. And it's easy to understand why.

Denial.

Our entire industry from training to practice is predicated on the old FFS-based, through-put model, the antithesis of this new, cost-shifting world. There is literally no saving any portion of it, so rather than prepare, all the incumbents have left is to delude themselves that none of this will come to pass.

Fortunately, for those with understanding and vision the opportunities are immense. The re-aligned incentives will not only get them off the care-delivery treadmill and bring about a renaissance in their personal and professional mission, but it will also promote the one result which matters most.

The well-being of our patients.

Thomas Davis, MD. FAAFP

Tom Davis MD FAAFP was among the first signers of the first full-risk Medicare Advantage type plan ever offered. With it he created the nation's first Value-Based health system, Patients First Healthcare of Washington, Missouri. For decades, he has been the country's foremost clinical Value-Based Care consultant. He currently shares his expertise for free at his Value-Based Care Success Community found at VBSC.com

Addressing Stomach Cancer Disparities

Our Mission

Uniting communities, physicians, and policymakers to create innovative approaches for gastric cancer awareness, prevention, screening, and early detection. SCTF seeks to empower the medical community and governments to ensure equitable access to these services for high-risk populations.

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

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

From Awareness to Action: A Congressional Forum on Gastric Cancer Prevention

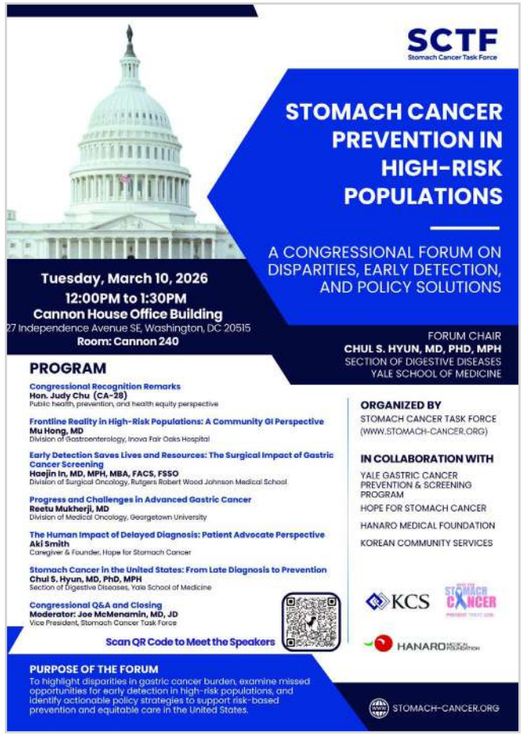
By Editorial Team

Gastric cancer remains a major global health issue, ranking as the fifth most common cancer and the fourth leading cause of cancer-related death worldwide. However, its presence in the United States is somewhat misleading. While overall incidence appears relatively low, this average obscures significant disparities. Certain subpopulations, including individuals of East Asian, Hispanic, and Eastern European ancestry, experience substantially higher risk. In these groups, incidence rates approach those seen in higher-prevalence regions, raising important questions about whether risk-based screening and prevention strategies should be more systematically implemented.

On March 10, 2026, more than 70 attendees, including patients, advocates, physicians, researchers, and policymakers, gathered at the Cannon House Office Building in Washington, D.C., for the second Congressional forum organized by the Stomach Cancer Task Force. Building on its inaugural 2024 meeting, this year's forum focused on gastric cancer prevention in high-risk populations and the policy pathways needed to support it.

The event was held in collaboration with the Yale Gastric Cancer Prevention and Screening Program, reflecting a growing effort to bridge academic research, clinical practice, and national policy discussions.

The forum also took place at a pivotal moment in policy development. In August 2025, the Stomach Cancer Prevention and Early Detection Act was introduced by Representatives Judy Chu and Joe Wilson. The bill represents an important step toward advancing national awareness, strengthening research efforts, and beginning to define a framework for early detection in the United States. While still in early stages, it signals growing recognition that gastric cancer requires a more structured approach to risk identification and prevention, particularly for populations that remain disproportionately affected.



A Disease of Late Diagnosis and Missed Opportunities

A recurring theme throughout the forum was that gastric cancer in the United States is too often diagnosed at advanced stages not because preventive tools are lacking, but because they are not systematically used. Prevention remains largely symptom-driven rather than risk-based, leading to missed opportunities for early intervention.

This disconnect set the stage for a series of presentations that examined gastric cancer from clinical, surgical, patient, and policy perspectives.

Perspectives from the Frontlines

Community and Clinical Realities

Dr. Mun Hong presented a community gastroenterology perspective, highlighting the realities faced in high-risk populations. He emphasized variability in awareness, access, and implementation of preventive strategies such as *Helicobacter pylori* testing and endoscopic evaluation. His remarks reinforced that risk is often present but not systematically identified in routine clinical care.

Surgical Consequences of Late Detection

Dr. Haejin In focused on the surgical impact of gastric cancer, illustrating how late-stage diagnosis limits treatment options and worsens outcomes. From a surgical standpoint, earlier detection fundamentally changes the trajectory of care by determining whether patients are candidates for curative intervention.

Advances and Limits in Treatment

Dr. Reetu Mukherji discussed progress and challenges in advanced gastric cancer, noting that while systemic therapies have improved, they remain limited in their ability to significantly alter outcomes for patients diagnosed at late stages. Her presentation reinforced the need to shift attention earlier in the disease process.

The Patient Perspective

A particularly powerful perspective came from Aki Smith, a patient advocate and founder of Hope for Stomach Cancer, who shared the human impact of delayed diagnosis. Her remarks highlighted how gaps in awareness, access, and timely evaluation translate directly into patient experiences, often with profound consequences.

From Late Diagnosis to Prevention

Dr. Chul Hyun framed the broader issue as a systems-level failure in prevention. He emphasized that although risk factors and early disease markers are well understood, they are not consistently translated into clinical action. The challenge lies not in knowledge, but in implementation.

Key Questions from the Audience

The forum concluded with a dynamic question and answer session, *thoughtfully moderated by Dr. McMenamin*, whose efforts helped facilitate a lively and productive discussion among panelists and attendees.

Audience engagement reflected both interest and urgency, with several themes emerging repeatedly.

Participants discussed the role of *Helicobacter pylori* screening in high-risk populations, recognizing it as a key modifiable risk factor but also acknowledging that its use in U.S. practice remains inconsistent. Questions centered on how to expand testing in primary care settings and how to align coverage and guidelines with prevention goals.

There was also active discussion about the role of endoscopic screening, particularly in individuals with identifiable risk factors such as ethnicity, family history, or geographic background. While such approaches are standard in high-incidence countries, the United States lacks clear and operational pathways to implement risk-based endoscopic strategies.

Bridging the Policy Gap

Across discussions, a central insight emerged. The challenge is not a lack of knowledge, but a lack of systems that translate risk into action.

The introduction of the Stomach Cancer Prevention and Early Detection Act reflects growing recognition that gastric cancer requires a more coordinated prevention strategy. By advancing awareness, research priorities, and early detection efforts, the legislation represents an initial step toward building a framework that could support risk-based screening and more systematic prevention in the future.

Key policy considerations discussed at the forum included improving risk identification through better data capture such as ethnicity and country of origin, expanding access to *Helicobacter pylori* testing and treatment, clarifying indications for risk-based endoscopy, embedding clinical decision support into routine workflows, and addressing structural barriers including access to care, language, and health literacy. These are not distant goals but actionable steps that can be implemented within existing healthcare systems if supported by appropriate incentives and infrastructure.

Looking Ahead

The 2026 Congressional forum underscored a critical shift in thinking. Gastric cancer should no longer be viewed solely as a disease of treatment, but as one of missed prevention opportunities.

By bringing together voices from across medicine, advocacy, and policy, the forum highlighted a path forward that prioritizes early detection, risk-based care, and system-level change. As discussions continue, the challenge remains clear. The next step is to move from awareness to implementation and from late diagnosis to prevention.

Creating Healthcare Infrastructure Where Basic Systems Were Absent:

A Conversation with Dr. Peter Smith

Global health conversations often focus on breakthrough technologies, major funding initiatives, and sweeping policy reforms. Throughout this issue of *NexBioHealth*, we feature leaders and innovators working across many dimensions of global healthcare transformation. Yet some of the most meaningful advances begin much more quietly, in places where even the most basic healthcare infrastructure does not exist.

What makes the work of Peter Smith, MBChB, DRCOG, DCH, MRCGP, founder of Outreach EMR, particularly compelling is precisely this quality. His work is not built around complexity or large scale technological ambition, but around a simple and fundamental question: how can healthcare systems function safely and effectively when patients have no reliable medical records at all?

In this cover story, Dr. Smith reflects on how a single moment while volunteering in a remote clinic in Uganda fundamentally changed his understanding of healthcare delivery. What began as an encounter with the absence of even the most basic patient documentation ultimately evolved into the development of electronic medical record systems now supporting underserved clinics across multiple low resource countries. Over the past decade, Outreach EMR has helped establish digital health infrastructure in settings where medical records often never previously existed.

What emerges from Dr. Smith's experience is an important reminder that global health progress is not always driven by the most advanced technologies or the largest international initiatives. In many settings, meaningful impact comes from addressing fundamental gaps in healthcare delivery, whether through access to medications, workforce training, infrastructure, continuity of care, or reliable clinical information systems. Outreach EMR highlights how even relatively modest and practical interventions can become transformative when they address essential needs that healthcare systems cannot function safely without.

NexBioHealth Editorial Team

1. For readers who may not yet be familiar with your work, how would you introduce yourself and your mission?

We are a UK based registered not for profit charity established by UK Doctors operating in nine low and middle income countries across the world, providing electronic medical record systems free for clinics, often operating remotely without reliable power or internet. *http://outreachemr.org/* Over the past 14 years we have established Electronic Medical Records (EMR) in 20 different clinics and created over 250,000 patient records where none previously existed. Through this experience we can demonstrate that EMR improves medical outcomes particularly in maternal care, infant mortality and immunisations, enables early detection of disease outbreaks and provides data enabled efficient deployment of resources.

2. You first encountered the absence of medical records while volunteering in Uganda. Can you take us back to that moment, and what made you decide that this was a problem you had to solve?

This is a photo of the very moment 15 years ago when I was volunteering in a remote clinic in Eastern Uganda, seeing 100 patients a day with no written records. Lab test requests were written on a piece of paper but nothing is wasted in Uganda and the next day the paper was put to use in the latrine. When visiting the latrine I noticed my previous day's request for an HIV test for a patient !

Against the backdrop of Infant mortality at that time of 38 per 1000 live births and Maternal mortality of 250 per 100,000 births I realised that good data would make a huge difference and returned to the UK to ask a software colleague to write a simple EMR programme.

3. In high-income settings, medical records are often invisible because they are ubiquitous. What are the most serious, and perhaps underappreciated, consequences of not having reliable records in low-resource environments?

Evidence shows that Electronic Medical Records can save 1.3 to 1.5 million lives annually in low-resource environments

At this time there are virtually none in Sub Sahara Africa but Outreach EMR have established EMRs that by the evidence below are probably saving 250 lives per year.

We compiled these figures from several sources including WHO, BMJ, WHO Africa, UNICEF, Global Health, UNAIDS, Global TB report, academic EMR studies from Malawi & Kenya, cancer and cardiovascular delay studies

Preventable medical errors cause 5-8 million deaths/year. Good EMRs with a chronological medical history can reduce medical and medication errors by 55-80%

Maternal and Neonatal mortality is huge in Africa with 182,000 maternal deaths/year and 1.12 million neonatal deaths. EMRs allow better antenatal tracking, referrals and medical compliance

HIV TB and Malaria mismanagement contributes to the 1.1 million deaths per year from these conditions. EMRs allow better follow up, appointment tracking and compliance and can reduce death rates by 10%

Epidemic Response delay such as Covid, Cholera and Ebola is common in Africa and our EMRs provide the opportunity for instant Public Health data collection via interoperability rather than a 6 week delay using paper records. Early detection saves an estimated 20,000 -100,000 lives

Chronic Disease Mismanagement. Non-communicable diseases such as hypertension, diabetes, asthma and epilepsy account for 1.5 million deaths across the continent. Better long term tracking and records conservatively reduces mortality by 3-5%

Emergency mismanagement and Delayed or incorrect Diagnosis

Lack of history and previous records, wrong meds, missed allergies, missed diagnosis and lab tests contribute to over 120,000 death s

Category	Estimated Lives Lost / Year
Medical Errors	1,000,000
Maternal & Neonatal Mortality	100,000–150,000
HIV, TB, Malaria Mismanagement	50,000–100,000
Outbreak Response Delay	20,000–100,000
Chronic Disease Mismanagement	50,000+
Emergency Care Failures	20,000+
Delayed/Incorrect Diagnosis	100,000+

Why This Estimate Is Defensible

- We used conservative estimates, often below what published studies suggest
- We avoided double-counting by separating clinical pathways
- We only included mortality impact, not the broader improvement in quality of life, disability-adjusted life years (DALYs), or cost savings
- All assumptions are grounded in peer-reviewed studies, WHO/UNAIDS data, and real-world EMR implementations in Africa

4. Outreach EMR was built to be simple, low-cost, and usable with minimal training. What core principles guided its design, and what deliberate compromises were necessary to make it viable on the ground?

From the outset we wanted a system whose USP would be that someone without keyboard skills would be able to enter patient data within hours of being introduced to the system. The system is designed around dropdowns with the ability to enter precoded ICD 10 diseases. There are traffic light warning systems to warn unskilled workers of abnormal temperatures, MUACs and BMIs etc.

As we have developed, reporting has become more sophisticated and we recently developed a more formal training approach to new clinics in Uganda. We know that our system is not as sophisticated as in US/UK models but after 15 years appreciate that this is not a necessity to reduce present levels of mortality from malaria, diarrhoea and pneumonia.

We see chronic disease management as a growing challenge with our EMRs

The architecture is designed to support both Cloud and Desktop including Roaming (mobile) installations, ensuring data integrity and enabling continuous remote support, even where connectivity is intermittent. Our modular, plugin-driven approach not only streamlines core clinical operations but also facilitates rapid deployment of interoperability features - such as the monthly Govt health reports - which are crucial for data-driven public health decision-making

5.How is what you are building fundamentally different from traditional global health models?

Designed by clinicians who have worked on the ground in Africa

Easy to adopt in areas with unstable electricity and no IT team

We are purpose built for frontline clinics rather than hospitals

Cloud based but our clinics can work offline and sync when internet available

Easy to use for non-technical users

Free to use

Proven Interoperability using DHIS2 platform

6. From your experience, what has been the single most difficult barrier to implementation? And has that answer changed over time?

Initially there were two main barriers.

1 Infrastructure with lack of reliable electricity and no internet so cloud based solutions were difficult. However over time because of our comparatively low band width, we have now successfully linked clinics to the cloud with the use of mobile phone data. We work with Airtel in Uganda who provide routers to connect and this has been very successful. We now have the ability to sync data at a later date (roaming) so constant power is not as crucial

2 Initially it was very difficult to engage all staff at new clinics. We provided training and uptake was rapid but people were not seeing the initial benefits. We know that this is a common problem. However 15 years on we now see a new generation of health care workers who are fully committed and actually encourage and train others. We are no longer needed in this area. It is becoming self sustaining

NEWS

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Medical project in the headlines

BY STEPHEN LEWIS

Many of the clinics are in remote rural regions far from proper roads

Wamono William, the data manager at Matiana clinic in Uganda, enjoying The Press

Patients waiting patiently in one of the clinics where Outreach EMR operates

Dr Peter Smith at a clinic in Uganda

Staff at Bumba government clinic reading The Press

NEWS

FOLLOW US ON @yorkpress

Retired GP visits lifesaving project

Fears for vulnerable and elderly after closure

BY STEPHEN LEWIS

Dr Peter Smith, second left, with the rest of the 'Project Connect' team in Uganda

A local carrying a load of bananas along a muddy road near one of the clinics. Many of the locals are subsistence farmers

Patients at a clinic in eastern Uganda where Outreach EMR operates

A mother and child in one of the clinics

7. Scaling global health solutions is notoriously challenging. As Outreach EMR grows, how do you ensure that expansion does not come at the expense of sustainability or local ownership?

We are very aware of this and in the long term want to work with partners such as other not for profit EMR providers and AI organisations and Governments. We know that we will not be able to grow as world leaders without partners. We are actively looking into this area at the moment and would welcome support with this next step. We see ourselves as at the forefront of EMRs and have no interest in monetising our development but want to be part of the work to address the needs of one billion people in Africa without EMRs and poor life expectancy.

8. Looking ahead, what would meaningful success look like in 10 years, both for Outreach EMR and for the broader digital health ecosystem in low-resource settings?

I would see Outreach EMR software being part of a more standard Global EMR designed around community/ primary healthcare settings. I believe that the systems for hospitals and tertiary care need different formats but that all systems should be able to communicate.

With good will and various funding streams capital investment into our system is around $1,000,000. If we saw strands of this development embedded in a global system in 10 years our work will have been worthwhile.

9. If you had the attention of global health leaders for just one minute, what would you urge them to do differently to close the digital divide in healthcare?

Digital health care cannot stand alone. It needs the foundations building around it which include infrastructure, compatibility and people before profit

Finally, good data in low resourced countries saves more lives than good medical care!

Peter Smith, MBChB. DRCOG. DCH. MRCGP.

Dr. Peter Smith Chairman Outreach EMR UK Charity no 1159060

I have spent most of my working life in General Practice in York, UK (Haxby Group Practice) where I was fortunate to be part of a progressive, patient centred organisation. We were also very educationally focused and teaching and training have always played a large part in my medical journey.

Much of my work was with patients from low socio economic backgrounds and I spent the last 5 years in my practice as Medical Director of an initiative to create three "Beacon Practices " in Hull. Life expectancy is 10 years less in parts of Hull than more affluent parts of York. This is where I first came across the "Hard to Reach" patient and it was this concept that inspired me to broaden my horizons and work in Africa.

On my first visit to rural Uganda in 2011 I was saddened to discover that there was no permanent note keeping in the busy clinic and any scraps of paper that were written on were used in the latrine the following day! The experience of seeing my notes - about a patient with HIV - on the latrine shelf dictated my medical course from then on.

I returned to the UK and met up with Bass Stewart, a software designer. Together, we created a Primary Care focused EMR which allowed a named database, space for notes, medical coding and a simple reporting system. Our unique selling point was that people with no computer skills could become proficient users in 1 day. We have since added many more functions including pharmacy stock control, cash book and traffic light warning systems to highlight abnormal findings, using Ugandan health system requirements as our baseline.

Our software was originally designed around the Ugandan HMIS form 105 and we can report on all their required disease codes. Our clinics in Uganda now have over 180,000 computerised records.

We have a talented committee and now have 22 established clinics in 8 countries with over 300,000 patients on our databases. We are a registered charity – Outreach EMR www.outreachemr.org with several doctors who regularly visit clinics and train staff.

We have recently completed a pilot with support from the Ugandan MOH and successfully demonstrated Interoperability.

Digital Healthcare Ecosystem for a Healthy Future Life

Data Platforms

· Healthcare data center
· Digital transformation for healthcare businesses
· Development of AI technology for healthcare

Bio Platforms

· AI-driven novel drug discovery consulting
· AI-powered novel drug target and lead compound identification
· Development of AI-based diagnostic algorithms

Services

MY ONE CARE
Health checkup & management platform

BIONECT
Bio cold chain logistics service

PHR
Personal health record management service

Hi Image
Teleradiology interpretation service

Medical Devices
Medical hemostatic products

Health Equity and Engagement

Building Healthcare Systems Through Diagnostics

Dr. Kyoung Ryul Lee, MD, PhD, is widely recognized as one of Korea's leading figures in laboratory medicine, precision diagnostics, and global healthcare innovation. A graduate of the College of Medicine and Graduate School of Yonsei University, Dr. Lee envisioned the future of evidence-based medicine (EBM) early in his medical training—long before data-driven precision medicine became central to modern healthcare. While serving as a professor of Laboratory Medicine at Yonsei University, he founded a start-up company and later became the second CEO of SCL Group, transforming it into one of Korea's most respected diagnostic laboratory organizations with internationally recognized research and clinical capabilities. Under his leadership, SCL has evolved into a comprehensive healthcare group advancing precision diagnostics, digital healthcare platforms, and global medical infrastructure.

Beyond his professional accomplishments, Dr. Lee is someone who has consistently demonstrated a deep understanding of medicine not simply as clinical practice, but as a broader human and global responsibility. I first met Dr. Lee in 2012 during the founding of the World Korean Medical Organization (WKMO), where he served as Executive Vice President. Over the years, I have come to know him as a warm, thoughtful, and deeply supportive leader who has remained committed to mentoring younger generations of Korean physicians and healthcare leaders across the world. He has continuously encouraged global collaboration, education, and broader engagement in international medicine and public health.

His longstanding healthcare initiatives in Mongolia—including establishment of the country's first automated diagnostic laboratory system and contributions to healthcare modernization—have received broad national recognition. Most recently, he was awarded an honorary doctorate by the Mongolian Academy of Sciences in recognition of his contributions to healthcare development and

international medical collaboration. He currently also serves as President of the Yonsei University Alumni Association, one of Korea's most influential academic leadership roles, helping shape the future vision and direction of one of Asia's most historic academic institutions.

Dr. Lee's contributions have been recognized internationally through numerous honors, including the Order of the Polar Star awarded by the President of Mongolia, Mongolia's Medical Pioneer Medal, the Minister of Health and Welfare Award, the Minister of Economy and Finance Award, and the Health Equity Award of the New York Health Forum. In 2024, he was also featured as the cover figure of the World Asian Medical Journal (now NexBioHealth).

In this interview with Dr. Lee reflects on SCL Group's longstanding partnership with NexBioHelth, the future of diagnostics and precision medicine, and the evolving role of healthcare leadership in an increasingly interconnected world.

Chul S. Hyun, MD, PhD, MPH

Advancing Global Health Through Innovation and Leadership:

A Conversation with Dr. Kyoung Ryul Lee

Chairman Kyoung Ryul Lee receives an honorary doctorate from the Mongolian Academy of Sciences.

1. What led SCL Group to begin its work in Mongolia?

SCL Group has built a deep and meaningful relationship with Mongolia over the years. As we prepared for global expansion, Mongolia became the very first place where we took that step.

In the early 2000s, Mongolia was going through rapid social and economic changes. However, the healthcare system—especially in diagnostic testing—was not able to keep pace. There was a lack of structured systems, which made early detection and accurate treatment difficult.

Although Mongolia is geographically close to Korea and shares certain cultural ties, there was still a significant gap in access to advanced medical technologies. Recognizing both the urgency and the opportunity, SCL Group established MOBIO in 2003, the first automated diagnostic laboratory in Mongolia. That became the starting point for introducing advanced diagnostic technologies into the country.

At the core of this decision was a clear belief: a healthcare crisis in one country is ultimately connected to the well-being of the global community. Over the past 20+ years, we have focused on bringing our diagnostic expertise to where it is most needed and supporting the long-term development of Mongolia's healthcare system.

2. What kind of projects have you carried out in Mongolia?

From the beginning, our goal was not simply to provide testing services, but to help shift the overall healthcare system forward.

With the establishment of MOBIO in 2003, we created a foundation where accurate and timely diagnostics could be performed locally at a global standard. Since 2004, we have also hosted annual international academic seminars, sharing advanced medical technologies and providing professional training opportunities in Korea for over 200 Mongolian healthcare professionals.

More recently, we have formed a strategic partnership with ACH International Hospital, Mongolia's first private medical school hospital. Through our affiliate MediInfra, we are working to localize Korean clinical models while expanding a smart healthcare network, including the introduction of NGS-based precision diagnostics.

At the same time, we have remained committed to community-centered efforts. We have provided ongoing free health screenings for underserved populations and supported children with heart failure by bringing them to Korea for comprehensive care—from diagnosis through surgery. These efforts reflect our belief that meaningful healthcare impact happens both at the system level and in individual lives.

3. Mongolia has one of the highest rates of gastric cancer. What stood out to you about the healthcare challenges there?

One of the most striking aspects of Mongolia's healthcare system is the imbalance between the high prevalence of serious diseases and the limited diagnostic infrastructure available to manage them.

Mongolia has the highest age-standardized mortality rate (ASMR) for gastric cancer in the world—approximately 28.56 per 100,000 population, which is more than three times higher than Korea. This reflects not only disease burden, but also underlying factors such as high-salt, meat-heavy diets and long-standing patterns of blood-borne infections.

When we first entered Mongolia, about 10.6% of the adult population tested positive for *hepatitis B* (HBsAg), and 9.0% for *hepatitis C* (anti-HCV). At that time, there were very limited screening systems in place to prevent blood-borne infections. In particular, insufficient donor screening meant that *hepatitis C* transmission through transfusions was a significant risk.

Recognizing this gap, we prioritized the establishment of an HCV PCR testing system through MOBIO. This helped improve transfusion safety and contributed to reducing infection rates.

What we learned early on was that before introducing advanced treatments, the more urgent need was to build a reliable early diagnostic system. Training local professionals and introducing standardized diagnostic processes became essential steps in supporting the modernization of Mongolia's healthcare system.

Sources: WHO IARC GLOBOCAN 2022/2024; WHO Global Hepatitis Report 2024

4. What does receiving the honorary doctorate from the Mongolian Academy of Sciences mean to you?

I see this recognition not so much as a personal honor, but as a reflection of the collective efforts made over many years

Honorary Doctorate Conferment Ceremony, Mongolian Academy of Sciences

2025 International Academic Seminar in Mongolia, hosted by SCL Group in Ulaanbaatar

Chairman Kyoung Ryul Lee receives a Distinguished Service Medal from KHOVD Province, Mongolia.

together with our Mongolian partners.

The Mongolian Academy of Sciences is one of the most respected institutions in the country, and for them to award this honor to a foreign individual speaks to the value they place on the contributions made toward healthcare modernization and system development.

What made this moment even more meaningful was the signing of an MOU with the Mongolian Academy of Medical Sciences at the same time. It represents not only recognition of past efforts, but also a step forward—creating new opportunities for joint research and technology exchange, and strengthening the foundation for long-term collaboration.

5. What has Mongolia taught you about global health, and where do you see it heading?

One of the most important lessons is that improving a country's health outcomes cannot rely on one-time support. Sustainable change comes from building systems that can continue to grow and operate independently.

Looking ahead, technology will play a critical role in shaping global health. In countries like Mongolia, where there is a vast territory with low population density, digital transformation can be a key solution to addressing healthcare disparities. AI-based diagnostics, telemedicine, and advanced surgical technologies all have the potential to significantly improve access to care.

At the same time, the model of collaboration needs to evolve. Rather than focusing only on one-way technology transfer, there needs to be more emphasis on joint research and data-driven approaches. By studying locally prevalent diseases together and building on accumulated data, we can move toward more personalized, precision-based healthcare solutions.

6. How do you see NexBioHealth contributing to global health?

The vision of NexBioHealth aligns closely with SCL Group's core value of building "a healthier future for humanity."

Over the past 40+ years, SCL Group has built a strong foundation through diagnostic infrastructure, contributing to the development of healthcare systems. NexBioHealth, in turn, has the potential to build on that foundation by creating a global platform where healthcare professionals can connect, share knowledge, and collaborate.

What stands out is its focus on building a global community for physicians and young healthcare professionals, helping them connect across borders and grow together. If this continues to develop, NexBioHealth can play an important role as a bridge, connecting future medical leaders and contributing to a world where high-quality healthcare is more accessible and shared globally.

Health Equity and Engagement

Immigration, Ethnicity, and Health Disparities: Reflections from GEEF 2026

By Sung Hwi Hong, MD. MPH

The Global Engagement & Empowerment Forum on Sustainable Development (GEEF), hosted annually by Yonsei University, has become a prominent international platform for advancing interdisciplinary dialogue on global challenges. Bringing together policymakers, academic leaders, and practitioners from around the world, GEEF focuses on developing collaborative, actionable solutions across domains including health, sustainability, and economic development.

The 2026 forum featured a panel entitled "Immigration, Ethnicity, and the Global Burden of Health," highlighting how migration is redefining the distribution of disease and challenging traditional approaches to global health. The session was moderated by Professor Sarah Soyeon Oh, Research Professor at the Institute for Global Engagement & Empowerment at Yonsei University and a member of the Gastric Cancer Prevention and Screening Lab at Yale School of Medicine. The panel included Zhao Ni, Chul S. Hyun, and Sung Hwi Hong, whose contributions collectively addressed structural, institutional, and clinical dimensions of global health inequities.

Professor Oh's presentation, "Gastric Cancer Burden & Health Disparities Across U.S. States, 1990–2021," utilized Global Burden of Disease 2021 data to characterize temporal and geographic variations in gastric cancer outcomes. Although age-standardized incidence and mortality rates have declined substantially since 1990, the absolute burden remains considerable, with over 28,000 incident cases and 16,000 deaths reported in 2021. Importantly, her analysis demonstrated marked heterogeneity across states and populations, with higher burden observed in regions with larger proportions of Asian and immigrant populations. These disparities were shown to be mediated by a combination of socioeconomic factors, dietary exposures, particularly

high sodium intake, and the under-recognized prevalence of *Helicobacter pylori* infection. The findings underscore the necessity of targeted, population-specific prevention strategies and the limitations of uniform national approaches.

Zhao Ni, Assistant Professor at the Yale School of Nursing, provided an overview of the Yale Institute for Global Health (YIGH) as an institutional model for addressing transnational health challenges. Established in 2017, YIGH integrates expertise from across Yale's schools of medicine, nursing, and public health to promote research, education, and global partnerships. Its activities, including seed funding, coordinated research networks, and international training programs, illustrate how academic institutions can operationalize interdisciplinary collaboration to address health inequities that are increasingly shaped by migration and globalization.

Chul S. Hyun, Associate Professor at Yale School of Medicine and the Director of Gastric Cancer Prevention and Screening Lab, advanced the discussion through his presentation, "Risk Without Borders: A Migration-Informed Future for Gastric Cancer Prevention." Situating gastric cancer within a global epidemiological context, he noted that the disease accounts for over one million cases and approximately 770,000 deaths annually worldwide. While incidence remains concentrated in specific geographic regions, migration has effectively redistributed risk, resulting in high-risk subpopulations within traditionally low-incidence countries. He argued that existing screening paradigms, which are largely geographically defined, are insufficient in this context. Instead, he proposed a transition toward risk-stratified, migration-informed screening frameworks that incorporate ethnicity, country of origin, and longitudinal risk exposure.

The panel concluded with reflections from Sung Hwi Hong, a physician affiliated with Yonsei University and Yale, who emphasized the translational implications of these discussions for clinical practice. In particular, he highlighted the importance of integrating global health perspectives into routine care for increasingly diverse patient populations.

Collectively, the session underscored the need for a paradigm shift in global health. As migration reshapes demographic and epidemiological landscapes, effective responses will require not only biomedical advances but also analytically rigorous, equity-oriented frameworks that account for ethnicity, mobility, and structural determinants of health.

Sung Hwi Hong, MD. MPH

Dr. Sung Hwi Hong, MD, MPH, is a physician and public health researcher whose work spans clinical medicine, global health, and cancer prevention. He earned his BA in Economics-Mathematics from Columbia University, his MD from Yonsei University College of Medicine, and his MPH in Global Health from Harvard T.H. Chan School of Public Health. He is currently affiliated with Yale's Gastric Cancer Prevention and Screening Lab, where he focuses on disparities in gastric cancer screening and outcomes. Dr. Hong has authored numerous peer-reviewed publications and has led medical, research, and humanitarian initiatives across Asia, Africa, and the United States.

Health Equity and Engagement

The Future of Global Surgery Starts Here

By Dr. Linda Zhang and Eva Ingber

Photo Courtesy of The Kyabirwa Surgery Clinic

Madina Kyomugisha's distended abdomen looked much like the natural swelling of a pregnant belly. As the mother of six children in a rural Ugandan village, Madina wondered at first whether she had perhaps conceived another child—but when nine months passed and her abdomen kept painfully growing, Madina knew something was wrong. She tried herbal remedies, searching for ways to alleviate her discomfort and shrink her growing stomach. Nothing worked. She became resigned to her fate, certain that death inevitably loomed.

Madina lived with an ovarian cyst for nearly eight years before she was serendipitously brought to the attention of the Kyabirwa Surgical Clinic in Jinja, Uganda. Dr. Joseph Okello Damoi, the head surgeon at Kyabirwa Surgical Center, along with Dr. Ann Tran from Mount Sinai,

together performed a groundbreaking teleproctored surgery to remove the ovarian cyst and save Madina's life. At the time of removal, the cyst contained roughly twenty-four liters of dark, cloudy fluid, and had attached to various organs in her abdomen.

The surgery was a great success. Within several hours of the procedure, Madina was back on her feet and walking. Two days later, she went home and follow-up care was continued remotely. Upon Madina's return to her village, friends and neighbors were in disbelief, barely recognizing her without a distended abdomen.

"The doctors took me through everything I would experience before and after the surgery, so I was ready for every experience," Madina said. "I [want] to thank the whole team that made this easy for me. I don't have much to send in appreciation to the team, but I promised myself to do so one day no matter how long it will take: thank you all."

Madina is just one of the roughly 30,000 patients seen, and her ovarian cystectomy is one of the 8,000-plus procedures performed at the Kyabirwa Surgery Center (KSC) since its inception in 2019. Her story is emblematic of KSC's tangible impact and profound mission: to use institutional collaboration as a means of successfully establishing an ambulatory surgery center in rural Uganda—and in doing so, to provide life-saving care to overwhelmingly underprivileged and resource-deprived patients.

Gaps in Surgical Care

According to The Lancet Commission, roughly five billion people worldwide lack access to surgical care that is both safe and affordable.[1)] There are a series of factors that perpetuate this unfortunate reality, particularly in Low and Middle Income Countries (LMICs). In these regions, there is often a shortage of surgical centers and adequately trained professionals, as well as a lack of necessary equipment. On top of this care gap, there is the financial burden that surgical care places on both patients and health facilities. [24)]

Historically, most of the surgical care in LMICs has been provided with inpatient admissions—this both exacerbates the financial burden, and significantly increases the risk of patient complications. The success of ambulatory procedures in high-income countries (HICs) at mitigating both excessive financial burden and the need for admission inspired the following question amongst a team of Sinai faculty: could an ambulatory surgery center help alleviate surgical care gaps in an LMIC like Uganda? It was this question that catalyzed the founding of the Kyabirwa Surgical Center (KSC). Located within the Kyabirwa village in the Jinja district of Uganda, KSC has been an invaluable asset to its surrounding rural communities since 2019, providing surgical care that is safe, affordable, and cutting-edge.

A Unique Model in Action

The elements of KSC that enable its continued success are characteristics that were baked into its conception, ones that aim to directly combat the persistent challenges faced in global surgery. KSC's location makes it more geographically accessible to rural Ugandan communities, its subsidized costs enable affordability, and its ambulatory model decreases inpatient stay—but the intentionality extends beyond these fundamental features.

The entirely Ugandan staff at KSC, a group of roughly seventy diverse medical professionals and staff, help perform procedures that span a variety of clinical specialties, including but not limited to general surgery, gastroenterology, otolaryngology, gynecology, and plastic surgery. Some of the clinic's most commonly provided procedures include endoscopies, hernia repairs, biopsies, and excisions. This range is a direct result of KSC's partnership with Sinai—a partnership that allows KSC to provide a diversity of subspecialty services in a rural setting.

KSC doctors receive telepathology, teleradiology, and telementorship of surgeries from expert clinicians at Mount Sinai. Surgeons based in New York City can remotely guide the KSC team through complex cases and provide real-time coaching on using technologies such as endoscopy and laparoscopy. In fact, Dr. Joseph Okello Damoi was the first Ugandan surgeon practicing in the country who successfully received a Fundamentals of Laparoscopic Surgery (FLS) certification. In addition to performing Madina's surgery with teleproctoring, Dr. Joseph was able to virtually learn from Dr. Peter Taub at Mount Sinai how to perform a hatchet flap to close a patient's scalp incision. In 2024, this training was further strengthened with the introduction of a Simulation Center at KSC, which has significantly advanced laparoscopic education by providing structured training curricula and skills certification to more than 50 surgeons across the region. Through the years, Mount Sinai remains committed to a model of collaboration and bidirectional teaching that fosters KSC autonomy and builds the local expertise needed for its continued success.

KSC's partnership with Mount Sinai also extends to its research output, where researchers at the clinic work together with Mount Sinai faculty and medical students on projects that aim to address care gaps and promote quality improvement. Projects have explored topics like patient education and improving informed consent, the role of traditional healers, patient outcomes, biobanking, women's health, and the barriers to surgical care. Ultimately, the collaboration between Mount Sinai and KSC aims to strengthen the research capacity of local healthcare providers in Uganda while simultaneously addressing a critical challenge in global surgery: the lack of robust literature and published data in the field.

1) Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development. Meara JG, Leather AJ, Hagander L, et al. Lancet. 2015;385:569–624. doi: 10.1016/S0140-6736(15)60160-X. [DOI] [PubMed] [Google Scholar][Ref list]

Sustainability

KSC's commitment to innovation extends beyond its model of surgical care and is further exemplified in its environmentally sustainable infrastructure. The center was designed to be entirely self-sustaining. It generates all of its own energy, running on solar power and achieving a 100% renewable energy usage with zero emissions. KSC was also built to collect its own rainwater, and has an advanced water filtration system, including a reverse osmosis mechanism with a capacity of 500 liters per hour. This system reduces mineral deposits and eliminates contaminants, giving the clinic constant access to clean water. KSC also utilizes electronic medical records, shifting to a paperless model. This commitment to sustainability is critical as it ensures reliable, cost-effective operations in a resource-limited setting while reducing environmental impact and strengthening the center's long-term independence and resilience.

Looking to the Future

Madina's story is a powerful reminder of what is possible when innovation, collaboration, and local empowerment converge. The Kyabirwa Surgical Center represents more than a single solution to a complex global problem—it offers a scalable model for delivering safe, affordable, and sustainable surgical care in resource-limited settings. By investing in local expertise, leveraging global partnerships, and prioritizing both technological and environmental sustainability, KSC is not only transforming individual lives but also redefining what equitable surgical care can look like. If replicated thoughtfully, this model holds the potential to narrow the global surgical gap and ensure that more patients, like Madina, receive the life-saving care they deserve.

Linda P. Zhang, MD. FACS

Dr. Linda Zhang, MD, FACS, serves as a Professor and the Director of Global Surgery in the Department of Surgery at Mount Sinai Hospital in New York City. Dr. Zhang is deeply committed to global surgery, serving as the Director of Global Surgery at the Icahn School of Medicine at Mount Sinai. She also chaired the Global Affairs Committee and is a Board Member of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). She is the Principal Investigator of a NIH/Fogarty International Grant and the recipient of the ACS/Pfizer Academic Global Surgeon Award for her significant contributions to the field of global surgery

Eva Ingber

Eva Ingber is a medical student at the Icahn School of Medicine at Mount Sinai. She graduated from the University of Pennsylvania in 2023, completing the pre-med track while earning a BA in English and a Chemistry minor. She is always looking for ways to bridge the divide between writing and medicine, especially through interdisciplinary publications like NexBioHealth. Eva is passionate about global surgery and received a Global Health Research Fellowship to work with Dr. Zhang on projects for the Kyabirwa Surgery Clinic in Uganda.

Health Equity and Engagement

The Fallacy of Resilience in a Global Health Context:

Transitioning from Outcome Measures to Systematic Change

By Patrisha C. Lazatin, MD. MMSc

Dr. Mahmud Bah is resilient. He had to be. Born in Freetown, Sierra Leone, a country with 8 million people and 0 neurosurgeons, Dr. Bah had to find alternative solutions to getting care for his patients. I had the privilege of working with him in the summer of 2024, when I was conducting systems-based implementation science research in Sierra Leone. We were focused on trying to figure out exactly how we can set up a neurosurgery service in Connaught, the only public hospital in Freetown. Mahmud was a medical student back then, who dreams of becoming a neurosurgeon, inspired by the tale of his late friend, a newly trained anesthesiologist who died from traumatic brain injury. His death could have been prevented by a decompressive craniectomy. But there were no neurosurgeons. There was no one who could have saved him.

At this current time of writing, Sierra Leone's first neurosurgeon is already back in the country after years of specialty training. Dr. Alieu Kamara spent 5 years in Rabat, Morocco for residency training. He was sponsored by a charitable organization, Mission:Brain, that aims to develop neurosurgery in places where there is no neurosurgery to speak of.

This mission is in stark contrast with the common theme underlying most global health missions – we must be resilient in the face of adversity. We must learn how to make do with what we have. We celebrate hardship, and reward struggles. After all, that is what we envision global health to be. Global health is hard, back breaking work. It utilizes whatever limited resource is available. This is what I would label the fallacy of resilience. We celebrated so many of our colleagues in the global health field who made do with what they had, who tried to do things in places that could not by stretching what little they had.

The issue with using and capitalizing on resilience is that the programs we design naturally become outcome based. For instance, in the case of Sierra Leone, the first instinct was to send international help, have volunteer neurosurgeons come in and do surgery in Sierra Leone.

It would seem like a straightforward, easy, doable solution. The volunteers and the people of Sierra Leone being resilient against adversity and trying to do what they can with what little they have. Outcomes become did we manage to save one life. So yes, your short volunteer program may have worked. Yes, of course, you saved one life.

For how long can they sustain it? How long will each volunteer surgeon be able to take time off their own work commitments before going back? For how long can funding be provided? How can neurosurgery be done when there is no operating theater or equipment? Do we just keep bringing our own each time we come to volunteer? How about long-term care? Who is going to follow up on post-operative wounds, inevitable complications, and post-operative progress? What about rehabilitation?

Here lies the problem with resilience. We cannot expect long lasting change when we just ask people to be resilient, to continue working despite no resources, to be creative and find

ways to make do. I find that in the face of adversity, sometimes, the best thing to do is to think "how can I get rid of adversity?" instead of thinking "how can I make it through and be resilient despite adversity?".

There is this wonderful awakening amongst global health practitioners, who come to the field and see that there are no specialty operating rooms, there are no microscopes, there are no CT scanners, and think – how do we fix this? Global health has since evolved from wondering "how can I do neurosurgery in a place with no operating room" to "how can I build an operating room so that I can do neurosurgery."

In the case of Connaught, the solution was not to send volunteer neurosurgeons, the solution was to train Sierra Leonians to be neurosurgeons for their countries. Instead of volunteer missions, the focus became raising enough funds to send a doctor for neurosurgery specialty training to a nearby training center outside of Sierra Leone. In addition, the hospital facilities were also evaluated. Nurses were trained to be neuroscience nurses. Specialty equipment like drills, microsurgery tools, microscopes and even a CT Scan was brought in to Connaught. The ICU was outfitted with an oxygen pipeline, so we can use donated ventilator machines. Change was made. We did not ask Sierra Leonians to be resilient. We asked them what can we provide to make this happen?

To this day Sierra Leone has had its first brain surgery, first spine surgery, and patients who obtain traumatic brain injury now have a chance for recovery and survival. Mahmud, who now completed his exams and is a fully fledged doctor, no longer believes he has to make do with what he has. He can now actually get the proper training that he needs. These are more than just outcomes on paper, a statistic in a journal. These are actual systematic changes, made because we refused to be resilient, we refused to make do. We saw what was missing and aimed to fill in the gaps.

This is the future of global health. This is how we repair the world, as was envisioned by the late Dr. Paul Farmer. "With rare exceptions, all of your most important achievements on this planet will come from working with others—or, in a word, partnership." Capacity building and implementation science is the way of global health collaboration. We come into their communities not to simply lend help, but to empower communities, to ask them what they need, instead of what we think they need, and to build up to those needs, to fill in their gaps and continue to collaborate with their communities. There is never an end goal, or a target date of handover. These are forever, our partner communities. We practice global health not by fulfilling outcomes of "number of surgeries performed", but by saying "now neurosurgery can actually be performed, in an ideal environment."

Do not be resilient. Refuse to accept adversity. Refuse the expectation to thrive in a situation that provides no assistance, no resources, no possibility. The practice of global health must be rooted in equity, in the belief that if the gold standard of treatment is X, then everybody must have X. We must move away from the notion that global health must operate in a way that leverages on how Y can approximate X to the best of our abilities.

Radical, all encompassing, systemic change that improves not just outcomes but communities, should be the goal of global health. We did not just make decompressive craniectomy possible, in fact that was never the goal. There was never a number or a statistic we wanted to achieve. There were people, like Mahmud, who we wanted to succeed. To achieve their fullest potential to the best of their ability, unrestrained by something so menial as lack of resources.

This is a call for all global health practitioners. Refuse to be resilient. Ask for change. Ask for it loudly. Ask for it proudly. This is how we practice global health. This is how we change the world.

Patrisha C. Lazatin, MD. MMSc

Medical Officer, Department of Neurosurgery
National Neuroscience Institute - Singapore

Pat Lazatin is an aspiring neurosurgeon and global health advocate. She completed her medical degree from Duke University-National University of Singapore Medical School in 2020. After three years of clinical practice, inspired by the works of Paul Farmer, she decided to pursue a master's in global health delivery at Harvard Medical School. During her time in Harvard, she served as the Outreach Chair for the Sierra Leone Project under HMS Mission:Brain. She is currently serving as a resident physician under the Department of Neurosurgery in Singapore General Hospital. Her vision of equitable healthcare for migrant workers in Singapore remain her focus. Outside of her healthcare pursuits, Pat is often found simply walking to Mordor, or meditating in Dagobah. (That is to say, in her free time, Pat likes to browse through a bookstore and spend her day in a coffeeshop, transported to a fantasy land where equity is a given, not a demand).

Editorial Review

By Sanghyun Alexander Kim

Dr. Lazatin's essay, "The Fallacy of Resilience in a Global Health Context: Transitioning from Outcome Measures to Systematic Change," offers a thoughtful and timely reflection on the evolving philosophy of global health. The article challenges the traditional narrative that celebrates resilience in resource-limited settings and instead calls for structural change and long-term system building. For students entering global health today, this perspective is both meaningful and necessary.

The story of Sierra Leone's first neurosurgeon and the effort to build neurosurgical capacity at Connaught Hospital illustrates a critical shift in global health thinking. Rather than measuring success by the number of surgeries performed during short volunteer missions, the article argues that real progress comes from building sustainable systems through training, infrastructure, and institutional development.

As someone who has participated in international medical outreach for more than a decade, this message resonates deeply with my own experience. For many years I joined surgical mission trips through churches and humanitarian organizations. These trips were meaningful and helped many patients, but they also revealed the limitations of short-term surgical missions.

Two years ago, I had the opportunity to visit Kyabirwa Surgical Center in Jinja, Uganda, an experience that significantly reshaped my own perspective on global health outreach. The center is a purposefully designed ambulatory and short-stay surgical hospital built in a rural setting, intended from the beginning to be operated and run entirely by Ugandans. From the surgeons and administrators to the nurses, cooks, and support staff, the entire system is locally led.

This remarkable surgical facility—located quite literally in the middle of the jungle—was built by one of my mentors at Mount Sinai. He has never sought the spotlight for this work. For more than fifteen years, he has quietly continued to connect physicians and surgeons from abroad with Ugandan colleagues to support the growth of their local surgical capacity.

During my visit, my role was not to perform surgery but to teach and collaborate. Since then, our partnership has continued through regular Zoom conferences where we discuss complex cases, operative strategies, and treatment planning. At times I am able to observe procedures remotely and offer input. The goal is not to count the number of operations performed by visiting surgeons, but to support the continued growth of a surgical system that serves its own community.

Having experienced this transformation firsthand—from mission-based service to long-term partnership—I believe Dr. Lazatin's article captures an important truth about the future of global health. Sustainable progress comes not from episodic acts of resilience, but from training, infrastructure, and enduring collaboration.

For our Student Hub readers, this essay offers an important lesson. The future of global health will not be defined by how many surgeries we perform abroad, but by how effectively we help build systems that allow local physicians and healthcare workers to care for their own communities.

For that reason, this article is a meaningful and thought-provoking contribution to the broader conversation on how we should approach global health in the years ahead.

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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**
  Summarize and analyze the latest developments in your field (2,500–4,000 words).
- **Letters to the Editor**
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Website

LinkedIn

contact@khidiusa.org

KHIDI Korea Health Industry Development Institute

Dr. Mun K. Hong's Reflection

A Sound Mind in a Sound Body

Potential for Better Patient Care

By Mun K. Hong

This latest reflection is a very personal revelation about my health and how it has affected my approach to patient care. I was recently diagnosed with pre-diabetes and as an interventional cardiologist, I am most fearful of the long-term complications of diabetes. Therefore, I have greatly modified my lifestyle, including daily exercise and removing all the sweets that I was addicted to. As a result, my HbA1C has almost normalized (my strict primary care provider still reminded that I am still "pre-diabetic" as my number was 0.1 above the normal value! I have also lost 15 pounds and have had the best blood pressure readings in my entire life. I have to admit that these modifications have required discipline and perseverance as it was so tempting to go back to the old diet and satisfy my sweet tooth.

What I didn't expect from the consistent lifestyle modifications were the benefits to my mental attitude. For interventional cardiologists, there are two responsibilities that could seem onerous. Foremost is the on-call duty for STEMI coverage as the majority of STEMI patients seem to present overnight even if their symptoms began during the day. Outpatient clinic is also seen by some as the other less than ideal activity. I admit that they were not my favorite clinical responsibilities, either. However, since I have lost weight and feel more at ease with all aspects of my life, including clinical work, I have noticed that neither seemed that burdensome and I realized that I have a new attitude about patient care. I went into interventional cardiology to help those in emergencies. Similarly, seeing clinic patients longitudinally offers an opportunity to get to know them better and to help them over the long run, not just during the emergency procedures. Now I think of the STEMI calls as an opportunity to help patients when they need our care most urgently and the clinic visits as another opportunity to collaborate with the patients to solve their health issues.

We hear about a "sound mind in a sound body". I have experienced the true meaning of this phrase and hope that all of the readers would improve their lifestyles and obtain both physical and emotional well-being.

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 Inaugural 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

Why a Meaningful Nonclinical Career May Be in Your Future

By John Jurica, MD, MPH, CPE, FAAPL

I arrived to my meeting ten minutes early. That was early enough to find the room eerily silent. I took a seat at the far end of the mahogany table large enough to sit sixteen. As the leadership team filtered into the boardroom, the air filled with the low hum of safe, practiced small talk. A few gave me a nod, the kind of polite, non-committal gesture you give a stranger in an elevator. Then the door clicked shut as the CEO entered. He didn't just walk in; he shifted the room's vibe, taking his seat as the casual chatter abruptly faded.

I had recently been selected as the hospital's first Vice President for Medical Affairs (VPMA); a position created as a stepping stone to the position of Chief Medical Officer (CMO). As I sat there, I felt awkward, anxious and yet energized.

Awkward because this setting was foreign to me, as to most physicians. While many of us felt very comfortable sharing our thoughts and pontificating during a medical staff meeting, sitting in a boardroom at a table with chief-somethings (chief executive officer, chief financial officer, chief nursing officer, etc.) represented a new level of accountability.

Anxious because I felt that for the next few weeks this experienced group of leaders would be scrutinizing everything I said. And they would be deciding whether I should be welcomed as a trusted ally, or an interfering clinician who didn't understand the difficult choices that needed to be made.

Yet, I was energized to be able to learn from these seasoned professionals, some with a clinical background, all with management experience, and a few with a deep understanding of the unique and fascinating financial workings of a nonprofit community hospital.

Joining that team, and later advancing from part-time VPMA to full-time CMO enabled me to leave the practice of medicine completely. Along the way, I took several steps to facilitate my transition. I completed a master's degree in public health while still in practice. I joined the American College of Physician Executives, now known as the American Association for Physician Leadership (AAPL). I served as a board member of a local nonprofit hospice. And I completed additional education and certification through the AAPL as a Certified Physician Executive (CPE).

During that evolution from clinician to physician executive, it occurred to me that many other physicians were following similar paths. Sometimes it was because they wanted to grow and pursue new challenges. Too often, it was because of the growing pressures of practicing medicine with its burnout and moral injury. Those growing pressures seemed to be exacerbating a new phenomenon: physicians were pursuing nonclinical careers.

Why Pay Attention?

If you're a medical student or a physician just starting your practice, why is this important? You certainly don't have to worry about these jobs currently. However, knowing what is possible later can help your planning now.

If you explore future nonclinical options now, you can take some actions that will otherwise be off the table later. For example, if its early enough in your medical education, you might be able to pursue a second degree while in medical school. Most of these decisions are made prior to matriculation, but I have met physicians who were able to add an MBA or MPH while still in medical school.

Also, you may want to reconsider your plans for residency. If you've been looking at a primary care field such as family medicine, internal medicine, or pediatrics, you might also consider preventive medicine. In most programs you'll be able to complete an MPH while in your residency, and you will still be eligible for licensure to practice medicine. Interestingly, many preventive medicine graduates move right into management positions based on the administrative and public health skills they learned during residency.

The other benefit of having an awareness of nonclinical options is that if you become unfulfilled or dissatisfied, more options will become available when needed. Without the nonclinical options, you will be limited to finding a new position with another hospital or another clinic, or starting your own practice. Given that many employers demand a fairly strict covenant not to compete, finding a new job may require onerous commutes or the need to move to a different community.

What's Driving the Growth in Nonclinical Careers?

Many of these career options have been around for decades. However, the variation in such activities, and the number of physicians transitioning into them has exploded. That means that current medical students and young physicians are much more likely to shift into this pool of nonclinical careers than ever before.

Unfortunately, they often enter the clinical workforce with no understanding of the large number of options available to them should they find that clinical work is

not satisfactory. It also means that those industries that require the knowledge and experience of medical school graduates and licensed physicians may be wasting valuable healthcare dollars and time to find the help they need.

Medicine and healthcare are complex. And the complexity grows daily. This growing reality drives the need for very well-educated experts in their fields to review, translate, and advise in hundreds of different ways.

For example, the number of medications grows exponentially, and the need to develop, market, and adopt their use requires physicians be involved at multiple levels. In hospital and outpatient settings, learning to use new EMRs, assigning correct diagnoses, and meeting insurance requirements creates a demand for physician experts who understand those systems.

There is a need for physicians who know how to measure and improve quality and reduce errors in patient care at the population level. And physicians are needed as medical writers to educate the public and their peers, and write technical documents to meet regulatory requirements. Demands for physician input exists in technology, coaching, consulting, and federal, state, and local governmental institutions.

How Your Education and Training Serves These New Nonclinical Roles

It might be helpful to give a few examples why your medical background is essential to these roles. Let's start with roles in the hospital setting. The titles for such roles include physician advisor, medical director, chief medical officer, chief quality officer and chief patient safety officer.

Your knowledge of anatomy, physiology, microbiology, and medical informatics is essential. And your experience interacting with patients, reviewing medical records, following hospitalized patients, and how to communicate clearly are needed for each of those roles.

When moving up from physician advisor to medical director you will be expected to incorporate more of the business and management skills, and manage your direct reports (persons who report directly to you). You will need an understanding of budgets. And you'll learn about measuring patient safety and quality outcomes and running performance improvement projects to improve care.

In medical school you may get a hint of those by attending hospital-based patient huddles, or a root cause analysis (RCA) for a sentinel event. In residency you may co-lead an RCA. Once in hospital executive leadership you will be accountable for overseeing the process and implementing the recommendations.

In the biopharmaceutical arena, the typical jobs include medical science liaison (MSL), medical monitor, associate medical director, medical director or safety officer. The MSL teaches prescribers how and when to use new drugs safely and appropriately. Your medical background and ability to read and critique clinical studies is key to this position.

Other pharma jobs are open to residency graduates and those with post-residency experience, particularly for those who use certain drug classes in practice. And while writing a clinical research protocol is left to those with research experience, formerly practicing physicians often work as a principal investigator at a single site, a medical monitor for multiple sites, or medical director who oversees the roll out of a new drug.

Another growing field for young physicians to consider is medical writing. It is a nonclinical career that often starts as a part time venture, but many young physicians eventually transition to full-time employed positions or freelance writers. The latter option provides much more freedom, is completely remote, and allows for working from anywhere. And like any profession, a subset of professionals is naturally good at, and drawn to, writing.

The need for skilled physician writers can be found in several arenas, including patient education, continuing medical education, journalism, technical medical writing, and medical communications. Biopharma companies, medical device companies, and contract research organizations (CROs) hire technical medical writers whose work is key to drug and device approval.

What Should You Do Now?

Whether you're still in medical school, or early in your career, there are several things you can do learn about this realm of opportunities. The first is to remain curious. When you're in an educational setting, it may appear that everyone is committing 100% of their waking hours thinking about your education. But that's obviously not true, and it can be quite eye-opening to hear what clinicians know about this topic, what they have already tried, and what they may be considering.

As you get to know your instructors, mentors, and role models, take a few minutes to get to know them better and ask them questions such as:

- How long have you been in this position?
- What were you doing before that?
- Do you want to stay in this role indefinitely or are you thinking about a new location or new job at some point?
- Have you ever thought about unconventional or nonclinical work?

Next, commit to taking 100% accountability for your career success and satisfaction. Be very intentional about defining what success looks like.

When I started my medical training, I was happy to have been accepted to medical school and I trusted "the system" to help me reach my end goal and help me find the "right" first job following residency.

However, I did not speak to many practicing physicians about what the meant. And I was naïve about the real challenges of working as a family physician in a small group. I later discovered that my practice did not meet my childhood fantasies, which were based on TV dramas and family members' opinions. I became disenchanted, and burnout was looming.

Luckily, my personality included an adventurous side, so I often volunteered when asked to try new things such as serving on my hospital board. And I wanted to pay off my student loans so I agreed to be a part-time physician advisor for my hospital's utilization management (UM) department, and later helped out with its occupational health program.

That was my first introduction to part-time nonclinical jobs.

After working in those UM and Occ Health positions, I became wanted to learn more about management roles. At the time, I was on the hospital Continuing Medical Education Committee. I became the committee chair, which made me the point person when the Illinois State Medical Society sent a team to do our accreditation survey.

Based on the success of our survey, the ISMS asked me to join its Committee on CME Accreditation. I met the committee chair, whose "real job" was that of hospital Chief Medical Officer. Soon thereafter he became my mentor. One of the first things he shared with me was the need for more physician executives in hospitals and other healthcare settings.

That's when I became intentional about my career.

Looking back to that first day as VPMA, I really had no idea how my life would change as a result of my decision to take the job and start a path to leaving clinical medicine. I truly loved my days as VPMA, and later CMO. I worked with awesome direct reports including the Directors of the Pharmacy, Quality Improvement, Patient Safety, Utilization Management, Laboratory Services, Radiology, and others. At one point, I was responsible for a budget of approximately $200,000,000. And I led our hospital to achieving Top 100 Hospital Designation six times before my withdrawal in 2014.

One of the things I did after leaving that position, because I was so interested in the growing evidence of burnout and moral injury, was to start a podcast called Physician Nonclinical Careers, which I continue to produce weekly. Looking back now, I wish I knew more about the options I've heard about on the podcast while I was still in medical school.

John Jurica, MD. MPH. CPE. FAAPL

John Jurica is a board-certified family physician who began doing nonclinical side jobs early in his career as utilization management physician advisor and occupational medicine medical director. He then transitioned to hospital administration, first as VP for Medical Affairs, and then as Chief Medical Officer.

He completed a master's degree in public health at the Medical College of Wisconsin while in practice, and certification as a physician executive (CPE) through the American Association for Physician Leadership. He left his CMO position to partner in an urgent care start-up in 2014, where he continues to serve as owner and medical director.

In 2017, John started producing the weekly Physician Nonclinical Careers Podcast, where he presents interviews with physician entrepreneurs, medical directors, hospital executives, managers, coaches and other experts in physician career transition.

Journeys In Medicine

Context Determines Outcome

By Eric Hoyeon Song, MD, PhD

I didn't arrive at science through a straight path. I arrived through displacement (geographic, cultural, linguistic) and through a series of people who saw something in me before I could see it myself.

Following the Asian financial crisis in 1998, my family moved from Korea to California. I look back at that decision with enormous admiration for my parents. They left their support systems to come to a country without language or jobs, and they spent night and day building a life for us. We rarely saw them. There were few moments of joy, and the stress of displacement was constant. But watching them take that leap was my first lesson in what it takes to succeed: perseverance, grit, and the willingness to step into the unknown.

Finding a Home in School

School became my second home. My start was in Mr. Jauregui's English as a Second Language classroom, where I learned more Spanish than English from my peers. He didn't want us labeled as students who couldn't keep up. His singular goal was to get us out of those classrooms, and his commitment got me out the next year. Leaving ESL opened up subjects I excelled at, like math, and my teachers continued to foster that momentum. My fifth-grade teacher, Mr. McDonald, who became my godfather, provided mentorship that went far beyond schooling. He spent long hours after class teaching me how to stand up for what's right and how to see the world as full of possibility. I attribute my love for education and my desire to stay in academia to the belonging and comfort I found at school during those years.

That comfort didn't last. As I reached adolescence, my parents were working longer hours and I felt unchallenged and invisible. I fell in with a group of older Korean-American kids who offered the sense of identity and belonging I was searching for. For a while, I mistook that solidarity for purpose. I made choices I'm not proud of, and I was eventually dismissed from my high school. It took separation from that group, and the slow, painful work of remembering who I

Mr. Jauregui's ESL Class at Beatty Elementary School. 1998`1999 School Year

actually was, to find my way back. I thought about Mr. McDonald and the conversations we'd had about seeing right from wrong. I thought about Mr. Jauregui and how he had embraced me despite our inability to communicate. I thought about my parents and the environment they had worked so hard to provide. Teachers and friends at my new high school helped me recover, and I began rebuilding.

From Photography to Medicine

I started college as a photography major. I was drawn to the way a camera could make the invisible visible, how light, angle, and timing could reveal something that was always there but that no one had stopped to look at. But I found myself increasingly pulled toward education and science, and toward being of service. I became an EMT, a campus coordinator for Teach for America, and founded a nonprofit called Project L to raise awareness of cystic fibrosis. Through that work, I connected with families with kids living with CF. Despite a difficult prognosis, all the families embodied hope. Their story clarified something for me: I wanted to work with children facing life-limiting diseases, and I wanted to do it at the intersection of research and patient care.

That conviction led me to Yale's MD/PhD program, where I trained under Akiko Iwasaki in immunology and drew on mentors across disciplines, from neurology to biomedical engineering. The pivot from photography to medicine wasn't as sharp as it sounds. Both are fundamentally about observation, training your eye to notice what others miss, and then having the discipline to frame it in a way that communicates something true. When I entered ophthalmology, the connection became literal. I was studying the organ of sight itself.

Following the Question

Each stage of my training reshaped the question I was asking. Nanoparticle engineering taught me that where something ends up in the body determines how the immune system responds to it. Mucosal immunity reinforced that lesson. And when I turned to the central nervous system, I found it again: the brain's lymphatic drainage doesn't just passively clear fluid, it actively shapes immune responses. The same antigen produces a completely different outcome depending on the anatomical context in which it's encountered.

That pattern, that context is not background noise but the primary variable, became the framework I now call anatomical immunity, trying to unravel how anatomical design guides immune responses, both at the molecular and cellular level. It eventually led me to discover that the eye has its own lymphatic drainage system, something the field had assumed didn't exist. From that finding came LS-VEGF-C, a therapeutic I engineered and am now working to bring to patients through Rho Bio, the company I co-founded. As an Assistant Professor at Yale, I'm building a lab organized around the same principle I've been circling since childhood; that the environment in which something happens shapes everything about the outcome.

What It Has Meant Personally

Science gave me a language for something I'd been feeling my whole life. The immigrant experience is, at its core, an experiment in context. You take the same person and change their environment, and everything shifts. The immune system does the same thing. A T cell that encounters antigen in the meninges behaves differently than one that encounters the same antigen in a lymph node. The context isn't incidental. It's determinative.

I think about that a lot when I consider what this path has meant to me. There were so many points where things could have gone differently. If Mr. Jauregui hadn't pushed to get me out of ESL. If Mr. McDonald hadn't spent those extra hours after school. If the teachers at my second high school hadn't given me a chance when I hadn't earned one yet. If my parents hadn't made sacrifices I still don't fully understand. Each of those moments changed my context, and each one changed what I became.

That's part of why I care so much about mentorship now. I know what it feels like to have someone see potential in you before you can see it in yourself, and I know what it feels like when no one does. As I build my lab and begin training the next generation of scientists, I carry that with me. The students and trainees I work with come from all kinds of backgrounds, and I want to create the kind of environment that was created for me: one where people are valued for their curiosity, given room to fail, and supported through the parts of the journey that don't look like progress.

I've been fortunate to be supported by people and institutions that understood this: the Paul and Daisy Soros Fellowship, the Burroughs Wellcome Fund, mentors like Akiko who modeled what it looks like to think structurally about immunity. The awards and recognition have been gratifying, but what matters most to me is the feeling that the science and the life are telling the same story. For every hardship or instability I felt from being a stranger in a foreign place, I found solace in mentorship and guidance. Grit is important, but it is just as important to have people behind you, nudging you in the right direction. That throughline from displacement to discovery isn't a coincidence. It's the whole point.

Dr. Eric Song with his father and Mr. McDonald, 2024

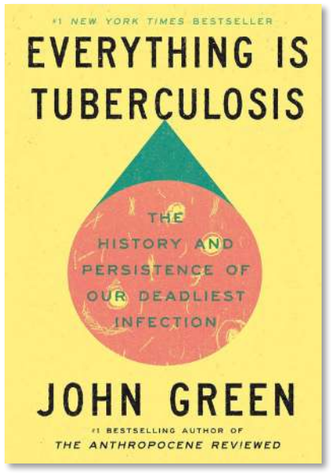
Eric Hoyeon Song, MD. PhD

Assistant Professor Adjunct of Ophthalmology &
Visual Science and Immunobiology

Everything Is Tuberculosis

The History and Persistence of Our Deadliest Infection

by John Green



As the 2020's have progressed, there have been increased conversations not just around ways to improve patient-focused care, but also an increased emphasis on the sociological elements that feed into medical outcomes.

John Green's Everything Is Tuberculosis: The History and Persistence of Our Deadliest Infection, does a fantastic job juxtaposing two dialogues at once. On one hand, Green recounts the history of tuberculosis and its far-reaching sociological and cultural impacts. He then powerfully intertwines its complex past with the very recent, raw, and incredible story of Henry, a boy living with tuberculosis in Sierra Leone.

There were many moments during this book that left me speechless, with my mouth wide-open, whether it was due to the introduction of an tuberculosis-related fact or the unbelievable moments of Henry's experiences captured by Green.

Everything Is Tuberculosis' widespread success (even among people outside of healthcare) reflects a wider endemic interest in addressing systemic health issues globally. This book is perfect for any reader interested in not only learning about the world's deadliest disease, but for those who want a powerful introduction into how sociology, colonization, history, and politics can dictate health.

Reviewed by Anna Geiger

Anna Geiger graduated with a BS in Business Administration and Psychology with a concentration in Healthcare Management and Consulting from Northeastern University. During her time at Northeastern, she worked in Marketing and Communications at Harvard Medical School Executive Education and on the Process Improvement Team at Brigham and Women's Hospital. She currently works at the Institute for Clinical and Economic Review as the Senior Communications Coordinator and volunteers as a Cognitive Psychology Research Lead at Northeastern University.

Editorial Commentary

By Sanghyun Alexander Kim, MD

This thoughtful and engaging review of Everything Is Tuberculosis by John Green captures one of the book's greatest strengths: the way Green weaves together the long historical arc of tuberculosis with the deeply personal story of Henry in Sierra Leone. That juxtaposition makes the global history of the disease feel immediate and human, reminding readers that tuberculosis is not merely a topic of the past but an ongoing reality for millions of people.

What is particularly compelling is the emphasis on the sociological dimensions of the disease. As Green illustrates, tuberculosis cannot be understood solely as a biological phenomenon. Its persistence is closely tied to poverty, access to care, and the historical forces that shape health systems. The discussion of how sociology, colonization, and politics intersect with disease offers an important perspective for readers who may initially approach the book as a purely medical history.

From a clinical standpoint, the book also resonates in meaningful ways. Physicians frequently encounter conditions that carry stigma imposed by society rather than by the disease itself. In surgical practice, this dynamic appears in areas involving HIV, HPV-related conditions, and other deeply personal aspects of patients' health. The experiences of tuberculosis patients described in the book reflect similar patterns of social judgment and marginalization, reminding us that medicine is always practiced within a broader social context.

Ultimately, Everything Is Tuberculosis succeeds not only as a history of a devastating infection, but as a reflection on how societies respond to illness. This review encourages readers to engage with the book as a broader exploration of health, inequality, and human resilience.

Sanghyun Alexander Kim. MD.

Dr. Sanghyun Alexander Kim is a colorectal surgeon at Mount Sinai who immigrated to the United States from Korea at age 17 and completed his education, medical training, residency, and fellowship entirely in New York. He joined the Mount Sinai surgical faculty in 2005 and currently serves as Program Director of the Robotic Colorectal Surgery Fellowship, where he trains surgeons in advanced minimally invasive techniques.

Dr. Kim's clinical practice focuses on colon and rectal cancer, inflammatory bowel disease, fecal incontinence, robotic colon and rectal surgery, and painless hemorrhoid treatment. He also has a large clinical practice performing high-resolution anoscopy, a specialized camera-based examination used to detect precancerous lesions and early anal cancer. In addition to caring for patients, Dr. Kim actively teaches medical students, residents, and surgeons, with a strong commitment to early cancer detection and serving diverse and underserved communities throughout New York and New Jersey.

Between Commitment and Curiosity

Dear Mentor,

I am a general surgery resident, and recently I've started to notice that the days I'm most energized are not the ones spent in the operating room, but the ones where I'm thinking about problems outside of it. That realization has been uncomfortable, because I've invested years into becoming a surgeon, and walking away feels both irrational and, at times, like a relief.

How do you navigate that tension between commitment and curiosity without making a decision you might regret?

Dear Mentee,

Surgery asks for a very deep commitment, so it certainly can feel almost disloyal to experience these feelings. However, having these thoughts doesn't automatically mean you need to walk away from this field. It does mean it's worth understanding if you are being pushed or pulled in this direction. What are you feeling about the work, the pace, the autonomy, or is it something else? Are you deeply unhappy with the work you do now on a day to day, or are you more fascinated by something else?

I'd caution against framing this as a binary choice too early. Maybe you can give yourself permission to explore in small, low-risk ways. That might mean carving out time to talk to colleagues in adjacent fields, or even noticing whether this feeling is consistent or fluctuates between different rotations. Is this a global problem, or more of a sporadic and situation-specific issue?

At the same time, be honest with yourself about what parts of surgery still resonate, if any. If the operating room consistently feels like something you're enduring rather than choosing, that's important to absorb honestly and fully.

When you say that you spend more energy thinking about problems outside of the OR, does this mean that you are still passionate about understanding surgical pathology? Or are you more drawn to other parts of medicine in general? Or are you feeling uninspired and repulsed by all of it, and thinking of issues completely outside of the entire field?

If you feel both pushed and pulled, and cannot see a happy future in any subspecialty, it is not a failure to move on to a new and exciting path for yourself. If you are still deeply excited by many aspects of surgery and there's a sub specialty that calls to you, it may be worthwhile to continue towards this future.

You've built something valuable, regardless of what you ultimately decide. If you do end up deciding to leave, the question then should not be, 'was it a waste?'—it's 'what do I want to do with the skills and perspective I've gained?'"

Koji Park, MD.

Dr. Koji Park is an attending surgeon and Associate Professor of Surgery at The Mount Sinai Hospital in New York City, where he serves as Associate Program Director for the General Surgery Residency Program. He is board-certified in general surgery and fellowship-trained in advanced laparoscopic and bariatric surgery, with clinical interests in minimally invasive, bariatric, and robotic surgery. Dr. Park earned his medical degree from SUNY Downstate College of Medicine and completed his residency training at Mount Sinai St. Luke's–Roosevelt Hospital Center, followed by fellowship training at Yale University. He has been recognized as a Castle Connolly Top Doctor and NY Times Magazine Super Doctor.

Choosing Ophthalmology for the Right Reasons

Dear Dr. Kang,

I am a third-year medical student who has rotated through different specialties, and I keep coming back to ophthalmology. I like it, maybe even a lot, but I am trying to figure out whether I like it for the right reasons or just the obvious ones.

A few things I have been wondering, and probably overthinking: Am I mistaking "this is fascinating and satisfying to watch" for "this is something I would still want to do on a long clinic day when nothing is particularly interesting"? I am not sure how to tell that difference yet.

I also notice that I like how contained and precise ophthalmology feels, but I wonder if ten years from now I might miss the unpredictability and broader problem solving of general medicine, or if that is something people naturally grow out of.

And maybe the most uncomfortable question, have you seen people choose ophthalmology because it fits well on paper or feels like a good lifestyle decision, but later realize it did not quite fit them? If so, were there early hints?

Thank you for your time and honesty. I suspect many of us are trying to ask better questions, even if we are not always sure how to frame them.

Sincerely,

Jennifer Lee

Dear Jennifer,

Thank you for your thoughtful letter and your interest in ophthalmology. Ophthalmology consistently ranks among the highest specialties in physician satisfaction, particularly when physicians are asked whether they would choose their field again. There are many reasons for that, and while every specialty offers something meaningful, I'm happy to share why ophthalmology has been such a rewarding path for me, and why I have never looked back.

One of the unique strengths of ophthalmology is that it offers a little bit of everything. You have the opportunity to build longitudinal relationships with patients in clinic while also performing surgery that can definitively improve their condition. That balance, between managing disease and actually fixing it, is deeply satisfying. You also care for patients across the entire lifespan, from newborns to the elderly.

Within the field, there is remarkable breadth. Not so obvious subspecialties even range from pediatrics to neuro-ophthalmology to oculoplastics, each appealing to different interests—whether that's working with children, tackling complex diagnostic challenges, or integrating reconstructive and cosmetic work. In addition, ophthalmology is a highly technology-driven specialty. We rely on advanced imaging and diagnostics, and in many ways interpret data similarly to radiologists. So while the anatomy is focused, the intellectual scope is not narrow.

That brings me to one of your key concerns—whether the field might feel "too contained" over time. In reality, the eye often reflects systemic disease. As ophthalmologists, we routinely engage with broader medicine: collaborating with neurologists on conditions like multiple sclerosis or intracranial tumors, working with endocrinologists in the management of diabetic retinopathy, and coordinating with

rheumatologists when autoimmune disease or medication toxicity affects the eye. A strong foundation in general medicine remains essential, and the connections to the rest of the body are constant.

On a personal note, what has sustained my enthusiasm over the years is the experience of restoring vision. Cataract surgery, in particular, offers the rare opportunity in medicine to take someone from significant visual impairment to functional independence in a very tangible way. Patients regain the ability to drive, read, work, and engage fully with their families. The gratitude they express sometimes as simple as a hug or a heartfelt thank you is deeply meaningful. It is a privilege that, even after many years, has not become routine.

I hope this helps outline some of the reasons why you may be drawn to ophthalmology. There are many wonderful fields within medicine for which ophthalmology is one. I would encourage you to explore your interests and am happy to answer any additional questions you might have. All the best in your medical pursuits.

Warm regards,

Paul C. Kang, MD

Paul Kang, MD.

Paul C. Kang is an ophthalmologist, medical missionary, and impact entrepreneur. Dr. Kang's motivation to become an eye doctor was sparked by growing up with a blind father. Dr. Kang is currently on the faculty of the Yale Eye Center and was awarded the excellence in teaching award by the Yale University School of Medicine. He is focused on his medical missionary work helping to lead Health in Sight Mission to build an eye center to provide medical and eye care for impoverished residents on the island of Roatan. Previously, he was a leading eye surgeon in the Washington DC area at the Eye Doctors of Washington. Www.paulkangmd.com

From India to the World:

How Cross-Cultural Medicine Redefined a Career

Q&A Interview with Dr. Swathy Karamchedu from Sleep Doodles focusing on Global Health

Interview by Raveena Baskaran

RB: Looking back, what parts of your medical training in India prepared you most for the unconventional work you do today, perhaps in ways you did not expect at the time?

Dr. Karamchedu: I got into a government (public) medical school in India right out of junior college at 18. Medical training in India has evolved quite a bit since then, but during my years it meant an almost exclusive focus on clinical medicine, with very little room for anything outside of it. That was shaped by a combination of old school academic culture, the immense patient load in state funded hospitals, and the limited resources available within the public health system. The priority was always the most immediate clinical need.

So in many ways, not much of my formal clinical training directly prepared me for the kind of work I do today - as a health communicator at Sleep Doodles, a company I co-founded and my other engagements as a trainer who teaches physicians about AI in Medicine and a scientific/clinical advisor for a sleep-tech start-up. What opened that door for me was exposure to how medicine was being practiced in the West, particularly in the United States and Europe. Through occasional access to medical/science magazines and publications, I began noticing that clinicians often contributed to roles beyond the hospital, including research, public engagement, and health communications.

That made me question the very linear path we were all expected to follow as medical students, which was essentially, medical school, residency, and then clinical practice. There was no room for experimentation, especially for those of us who started right out of school at 18. So, I started stepping slightly off that path and looking for research internships, which at the time were surprisingly uncommon for medical students in India. Eventually that curiosity led me to pursue a masters in Medical Research in Sweden where I found my passion for sleep science and that was really the first time I could start imagining a way of contributing to medicine beyond clinical practice alone.

If there is one thing my medical training did give me that continues to shape my work today, it is resilience and adaptability. Training in that environment teaches you very quickly that things rarely go exactly as planned, and that setbacks are just a part of the process. Failing is never really the end of the story, it is usually just part of figuring out what comes next.

RB: It was once rare to find physicians in non-clinical roles. What do you think has changed in the last decade to make these paths more visible and accepted?

Dr. Karamchedu: Medicine is changing rapidly and is quickly extending beyond the hospital and the management of disease alone. We started to understand that isolating ourselves in clinical roles while new technologies, systems and ideas that were meant to transform healthcare were being

developed by people with little exposure to everyday medical practice was not very efficient. That is why conversations about bridging gaps between academia, clinical practice and industry started becoming much more common. People began to recognize that healthcare works best when these spaces are not operating in isolation from each other.

More physicians have started contributing to patient health at scale by working at these intersections, in research, public health, education, technology, pharmaceuticals or communication. Industry and academia also started to realize there is value in having clinicians involved in their work and have become much more open to including medical professionals in their teams.

Areas like sleep health are a great example of this. Sleep health starts even before a clinical diagnosis with preventive health initiatives that span health education, behavioral science, workplace health initiatives, digital tools and even advocacy and policy.

Clinicians are also taking it a step further by moving into areas like health tech, consulting, finance, venture capital, and entrepreneurship where they are creating organizations and initiatives that try to address the gaps in healthcare they see on the ground. All of this was once considered "stepping away" from medicine, but today it is increasingly seen as another way of contributing to it.

RB: How do you see the global community of non-clinical physicians evolving, especially across Asia, Europe, and the Americas, where you have worked?

Dr. Karamchedu: The biggest change I notice is visibility and the ease of networking to create a community.

When I was looking for inspiration and advice to make this lateral move during the final years of my medical training, I had almost no examples to look to in my part of the world. Europe and the Americas were already evolving at that point, but those places felt like distant ideals we could not yet reach. Even the few clinicians who were exploring non-clinical roles where I was training in India were doing it in isolation, without much support from their institutions.

That is very different today. There is now a large global network of clinicals working across different industries who openly share their experiences and help show what these unconventional careers can look like across different countries.

These pathways have existed in North America and Europe for longer with institutional support. In many parts of Asia, the shift is newer and you still have to carve your own path. I'm back in India right now and catch myself explaining what I do to people often and have received a fair share of confused looks. But that is not to say the change is slow, the pace of adoption is quick especially as more technology becomes integrated into healthcare systems across Asia.

I was recently invited to join a popular podcast for the medical community in India that focuses on helping physicians discover non-clinical careers. I couldn't help thinking to myself how much I would have loved having a resource like that when I was in my own exploration phase.

RB: You have worked across India, Sweden, Singapore, and the US. How has cross-cultural exposure shaped your understanding of global health challenges?

Dr. Karamchedu: No matter where you are in the world, the one thing that ties healthcare across countries and cultures is that people come to you at the most vulnerable moments of their lives, and healthcare systems aim to provide the best care within the constraints of their resources.

The systems themselves are widely different in the parts of the world I had the privilege to live in. Sweden has predominantly publicly funded healthcare, Singapore has a highly subsidized public healthcare model and on the other end of the spectrum is the US with a mostly privatized healthcare system. India sits somewhere in the middle with both public and private healthcare offerings.

Each of the systems has its advantages and pitfalls and seeing them up close makes you realize that there is rarely a single correct way to solve a healthcare problem. At their core, the problems they are trying to solve are very similar, with access to care, prevention strategies, improving health literacy and adapting to rapidly changing lifestyles and technologies at their core.

What it made me realize is that healthcare challenges are not isolated national issues but more shared global problems that require collaboration. This was made very clear during the COVID-19 pandemic. If we took time to learn from different systems around the world we would probably find better solutions for our problems back home.

RB: What do you think global health organizations need to keep in mind when designing interventions for diverse communities?

Dr. Karamchedu: Global health organizations occupy a unique place in healthcare because they have to step into the realities of the communities they serve. That means they not only have to look at a problem from a clinical perspective but also with the mindset of an anthropologist, a public health specialist and sometimes even a diplomat.

Solutions cannot be purely top down as they often are in traditional healthcare structures. They need to be bottom up, rooted in and aligned with a community's cultural beliefs, social structures and constraints. In the case of sleep health interventions, this includes their daily routines. If these are not factored in, even the most well-intentioned interventions may fail. Something that works well in one setting may not translate easily into another.

This is something we try to put into practice in our work at Sleep Doodles. The biological need for sleep is universal, but a society's relationship to sleep is shaped by culture, work demands, social expectations, climate and importantly structural barriers to accessing a good night's rest, such as poverty, lack of safe, stable housing, noise, air or light pollution, and even discrimination.

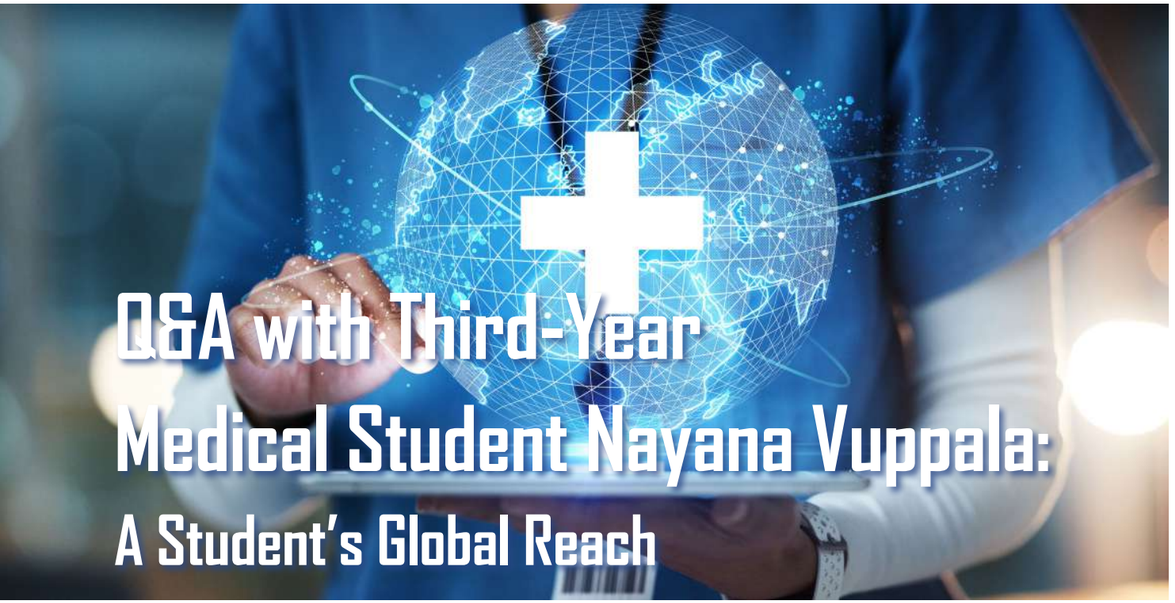
When we design our workshops and other educational resources, we are very mindful of the audience we are trying to reach. Even within low-resource settings, not all challenges and forms of suffering are homogenous. Different groups within the same community often face very different barriers. In addition to tailoring solutions to each group's circumstances and needs, we also make an effort to understand where their questions and concerns lie before designing our sessions.

For in person sessions, we try to understand the demographic of the attending audience, review sleep patterns collected over a period of time before the session and identify the main concerns participants have about their sleep. When creating educational material such as picture books, posters, or infographics, we focus on making the information accessible and the solutions implementable regardless of resources.

Ultimately, the most effective global health interventions are found at the intersection of scientific evidence and local insight. Listening carefully to the communities you are designing for takes priority if we want to create lasting impact.

Dr. Swathy Karamchedu

Swathy Karamchedu is a physician and health communicator working at the intersection of health, technology, and grassroots impact. She is the Co-founder of Sleep Doodles, where she builds scalable community-centered and community-led sleep and wellbeing programs, and Head of Sleep Science at Naptick, guiding evidence-based consumer sleep-tech solutions. Alongside this, she leads AI upskilling workshops for physicians across 15+ cities in India, advocating for the ethical use of new technologies. Her work focuses on translating science into practical, accessible knowledge for diverse populations.



Q&A with Third-Year Medical Student Nayana Vuppala: A Student's Global Reach

By: Kendrick Yu; MS3 at the University of Alabama at Birmingham Heersink School of Medicine

Editor's Note: Questions and answers are not direct quotations. Paraphrasing and edits were made to accommodate for the article's flow and style. The interview was held via Zoom.

KY: Before we begin, could you please introduce yourself?

NV: My name is Nayana Vuppala, a current 3rd year at the University of Alabama at Birmingham Heersink School of Medicine. Also, I am a part of the Primary Care Track and pursuing a recognition of distinction in global health.

KY: To clarify, what's the difference between "Public Health" and "Global Health?"

NV: Public health is a more general look at what might be wrong with the system and how to fix it while global health can be seen as a subsection of public health. I like to view global health as the interaction of systems between different countries including international systems and organizations without cultural, language, socioeconomic, or geographic barriers.

KY: What are some experiences that you have in global health?

NV: The education system that I grew up with emphasized cultural and societal aspects including language which I have been learning Spanish my whole life. However, to fully understand how a culture functions, I had to immerse myself in the culture. In high school, I had the opportunity to travel to Panama and work with the local population to teach them about health literacy and how to utilize their healthcare resources effectively. During medical school, I traveled to the Dominican Republic and collaborated with their medical students. I got to see how their system was set up, how they learned, and exchanged different ideas such as us teaching them how to use ultrasound.

KY: How do the countries that you visited differ from the United States?

NV: In the countries that I visited, most of them Spanish-speaking, there was an emphasis and value placed on family and community. We saw neighbors driving patients to the hospital even if it was 50 miles away, and they cooked meals together. This becomes apparent in countries that have limited resources as different resources are prioritized for patients, such as masks for TB or even gauze for wounds. Although there are communities like that here [United States], we are more of an individualistic society and the resources are, for the most part, readily available. The resources that limit rural care in Panama or the DR are different from the US which is more provider centric.

KY: What do you think students should be taught to understand other global systems?

NV: I think there should be a focus on cultural competence and empowering students to learn different types of treatment in other countries such as alternative medicine. The standards for Western medicine are not applied everywhere and things like acupuncture in Eastern medicine are not considered. So, if a patient comes in desiring acupuncture, instead of dismissing it, understanding why they would want it, reflecting on my own bias, and making a recommendation considering both sides is important.

KY: Why is global health so important?

NV: Global health is more than just traveling to countries and understanding them. I think it extends into, how does what I do here affect others around the world? Technology and discoveries here extend to the global environment and vice versa. Things like HIV/AIDS research is a global effort as some countries have more resources and can supplement the efforts of another region which may not have the same financial background.

KY: What and how can a medical student do in their career to prepare themselves for global health? Or what type of mindset?

NV: Be curious, open-minded, and don't be afraid to engage. Getting connected to global health does not necessarily have to be joining a project that focuses on a specific outside country. There are always expansions into global health and connections into a wider picture such as talking to your professor about their experiences in a different country or another student about the languages that they know. Although it may be intimidating to email or talk to new people, within academic medicine, a lot of people want you to succeed in global health. Research the programs at your university and reach out if you have more questions, you must take that first step. The Fullbright scholarship, the NIH, WHO volunteering, and the local public health department, are all starting points.

Nayana Vuppala

Nayana Vuppala is a medical student at the University of Alabama at Birmingham Heersink School of Medicine with a strong interest in public health, health equity, and interdisciplinary care delivery. Her passion focuses on improving access to care for underserved populations through community-engaged initiatives and systems-level innovation. She is particularly passionate about addressing structural barriers to healthcare and advancing collaborative models that integrate clinical medicine, public health, and social support systems.

KAMSA Specialty Spotlight

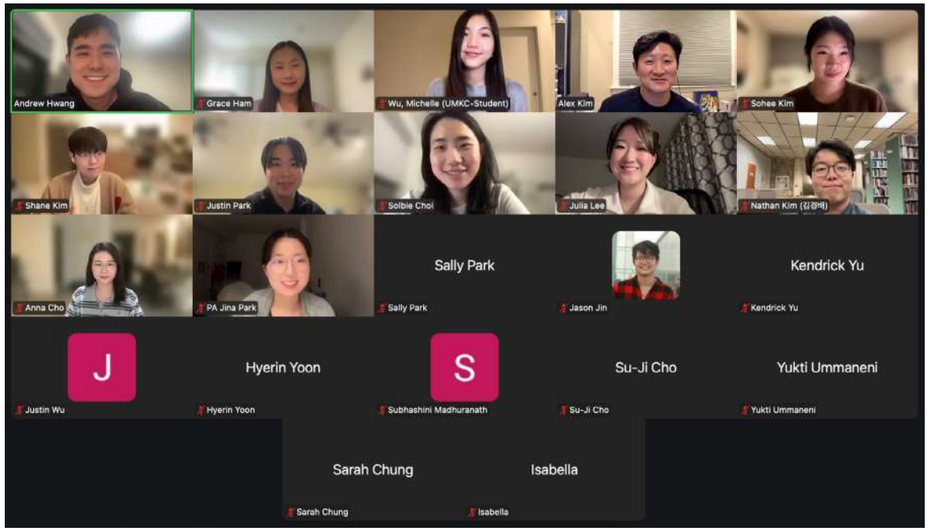
Dr. Sanghyun Alex Kim on Colorectal Surgery and Surgical Leadership

The National Board of the Korean American Medical Student Association (KAMSA) recently hosted a specialty information session featuring NexBioHealth Managing Editor, Sanghyun Alex Kim, MD, Associate Professor of Surgery and Site Chief of Colon and Rectal Surgery at Mount Sinai.

For many medical students, choosing a specialty can feel overwhelming—especially in fields like surgery, where reputation, lifestyle, and personal identity often become deeply intertwined. During a recent KAMSA specialty spotlight session, Dr. Sanghyun Alex Kim offered students an honest and thoughtful perspective on what it truly means to pursue a career in surgery.

Originally entering medicine with the intention of becoming a primary care physician serving the Korean community in New York, Dr. Kim shared how his interests gradually evolved through exposure to trauma surgery, vascular surgery, and eventually colorectal surgery. His story reflected a recurring theme throughout the discussion: career paths in medicine are often shaped through experience, reflection, and openness to change.

One of the central messages of the session was that surgery is far more than technical skill alone. While many students initially associate surgery with procedures and precision, Dr. Kim emphasized that long-term success in the field depends just as much on judgment, communication, emotional steadiness, and accountability.



QUOTE FROM DR. KIM

"If you are thinking about surgery, but you're not sure, then the questions you should ask yourself are… Do I want to take ownership of the patient from diagnosis to recovery? Am I comfortable being accountable? Would I enjoy doing this kind of surgery 20 years from now?"

For students currently rotating through surgery clerkships, Dr. Kim highlighted reliability, initiative, and patient ownership as qualities that consistently distinguish strong trainees. More important than always having the correct answer, he noted, is staying engaged, understanding your patients thoroughly, and demonstrating a willingness to learn from complications and mistakes.

The conversation also addressed one of the most common concerns among students considering surgery: lifestyle and long-term balance. While acknowledging the demanding nature of residency and surgical training, Dr. Kim encouraged students to recognize that career sustainability is often shaped by the boundaries physicians intentionally create for themselves.

He shared how protecting family time and maintaining perspective became essential parts of his own professional journey, offering students a more realistic and balanced view of surgical life beyond stereotypes.

QUOTE FROM DR. KIM

"Don't choose surgery for prestige… but choose it because you can't imagine doing anything else."

As medicine continues to evolve, Dr. Kim emphasized that adaptability and lifelong learning remain essential for surgeons at every stage of their careers. His reflections ultimately challenged students to think beyond prestige or technical perfection and instead consider the deeper responsibility and fulfillment that come with caring for patients over time.

The session left many students with a clearer understanding that surgery is not simply a career defined by procedures, but one shaped by commitment, resilience, humility, and continuous growth.

About KAMSA

The Korean American Medical Student Association (KAMSA) is a national organization dedicated to supporting Korean American medical students through mentorship, networking, leadership development, and specialty exploration opportunities.

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+82-2-590-1111

UPCOMING CONFERENCE ALERT

American Diabetes Association (ADA) Scientific Sessions 2026

Dates: June 19–23, 2026

Location: Moscone Center, San Francisco, California & Online

Focus: A premier global conference on diabetes research, prevention, and care, highlighting breakthrough studies, new therapies, and multidisciplinary approaches to metabolic disease management.

https://professional.diabetes.org

HLTH USA 2026

Dates: June 2026 (TBD)

Location: Las Vegas, Nevada

Focus: A major healthcare innovation conference bringing together leaders across health systems, startups, investors, and technology companies. Emphasizes digital health, AI, care delivery transformation, and cross-sector collaboration.

https://www.hlth.com

HIMSS Europe Health Conference & Exhibition 2026

Dates: June 2026 (TBD)

Location: Paris, France (Expected)

Focus: Focused on digital health transformation in Europe, including AI, interoperability, health data, and policy. Brings together healthcare leaders, innovators, and policymakers from across the region.

https://www.himss.org

Alzheimer's Association International Conference (AAIC) 2026

Dates: July 26–30, 2026

Location: Toronto, Canada & Online

Focus: The largest international conference dedicated to Alzheimer's and dementia research, featuring advances in prevention, diagnosis, treatment, and global public health strategies.

https://aaic.alz.org

AACC Annual Scientific Meeting & Clinical Lab Expo 2026

Dates: July 26–30, 2026

Location: Anaheim Convention Center, Anaheim, California

Focus: A leading global meeting in clinical laboratory science and diagnostics, showcasing innovations in biomarkers, precision medicine, and laboratory technologies alongside a large industry exhibition.

https://www.aacc.org

AAFP FUTURE 2026 Conference

Dates: July 30–August 1, 2026

Location: Kansas City Convention Center, Kansas City, Missouri

Focus: The premier national conference for medical students and family medicine residents, offering educational sessions, career development opportunities, residency networking, leadership training, and insights into the future of family medicine.

https://www.aafp.org/cme-and-events/in-person/future

International AIDS Conference 2026

Dates: August 2026 (TBD)

Location: Rio de Janeiro, Brazil (Expected)

Focus: One of the most influential global health conferences, focusing on HIV/AIDS research, prevention, treatment, and policy, with strong emphasis on equity and global collaboration.

https://www.aids2026.org

World Congress of Cardiology (WCC) 2026

Dates: August 2026 (TBD)

Location: Vancouver (Expected)

Focus: A major global cardiovascular conference addressing prevention, diagnosis, and treatment of heart disease, with emphasis on global health, innovation, and collaborative research.

https://world-heart-federation.org

UPCOMING ISSUE

The Evolving Physician

Medicine and healthcare are changing more rapidly than ever before. Advances in technology, digital health, artificial intelligence, entrepreneurship, public communication, and healthcare systems innovation are reshaping what it means to be a physician today. The traditional image of the doctor, defined primarily by clinical practice within hospitals and clinics, no longer fully reflects the expanding ways physicians can contribute to healthcare and society.

Today's physicians increasingly work across medicine, technology, leadership, education, policy, innovation, and business while still maintaining meaningful connections to patient care. As healthcare evolves, the physician role is evolving as well.

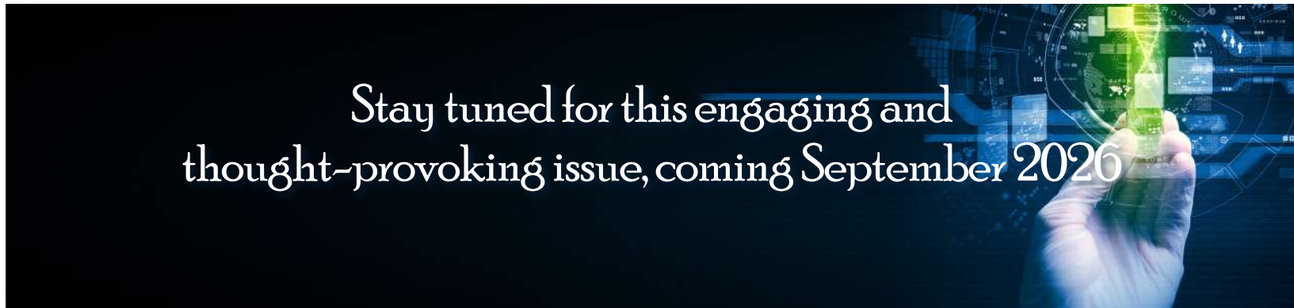
For many younger physicians, trainees, and medical students, this transformation can feel both exciting and uncertain. Questions about identity, purpose, career flexibility, and long-term fulfillment are becoming increasingly important. At NexBioHealth, we believe it is important to highlight physician career pathways that reflect this changing landscape and demonstrate that meaningful impact can extend beyond conventional clinical boundaries.

Our upcoming September issue centers on the theme, "The Evolving Physician." Through this issue, we hope to explore how physicians can adapt, innovate, and lead within a rapidly changing healthcare environment while remaining grounded in the core values of medicine.

One individual who exemplifies this evolving physician model is Dr. Ian Tong. From academic medicine at Stanford to leadership roles in digital health and healthcare innovation, Dr. Tong's career reflects how physicians can expand their impact across multiple domains without leaving behind their clinical foundation. His journey highlights the growing opportunities for physicians to shape the future of healthcare in ways that previous generations may not have imagined.

We are honored to feature Dr. Tong in this upcoming issue and hope his story will inspire many of our readers as they navigate their own evolving paths in medicine.

The *NexBioHealth* Editorial Team



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