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Asia's strategic approach to address the diverse needs of the eye care industry

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Christoph Vonwiller, President, Vision, Asia-Pacific at Johnson & Johnson; Dr Rahil Chaudhary, Managing Director, Ophthalmologist at Eye7 Eye Hospitals "The adequacy of resources and investments to tackle ocular health as a public health issue in the Asia-Pacific (APAC) varies significantly across countries and regions"



Christoph Vonwiller, President, Vision, Asia-Pacific at Johnson & Johnson
Dr Rahil Chaudhary, Managing Director, Ophthalmologist at Eye7 Eye Hospitals

The refractive surgery market is undergoing significant transformation, driven by technological advancements and shifting lifestyle trends that have increased the demand for vision correction procedures. Innovations such as femtosecond lasers have enhanced the precision, safety, and efficiency of refractive surgeries, improving patient outcomes. Concurrently, the rising prevalence of myopia, fueled by digital lifestyles and urbanization, presents both challenges and opportunities in the Asia-Pacific region, where myopia rates are among the highest globally. Addressing these challenges requires a multifaceted approach, including public health initiatives, innovative treatment solutions, and collaborative efforts among stakeholders to improve eye health literacy, accessibility, and care delivery across diverse populations. *Biospectrum Asia* spoke to **Eye Care Professionals (**ECP) leaders in the APAC region to furthur dwell into industry dynmics and trends.

- **How do you perceive the recent trends and opportunities in the refractive surgery market?**

Christoph Vonwiller: Refractive surgery has evolved over the years, with significant advancements in refractive surgery technology in recent years such as the development of femtosecond lasers. These advancements have made refractive surgeries more precise, efficient, less invasive and safer, resulting in improved patient outcomes and satisfaction.

The increasing demand for vision correction procedures such as refractive surgery can be attributed to various factors such as changing lifestyles, and growing awareness of the safety and effectiveness of refractive surgery. Widespread digital lifestyle trends and increasing rates of time spent looking at digital screens continue to contribute to visual discomfort and increased rates of near work have played a part in increasing incidences of myopia. Surveys have shown that, among people between the ages of 55 to 64, about 85% use a mobile phone, and close to 60% use a tablet.

With population growth and emerging lifestyle trends driving increased vision care need, it creates accelerated opportunities for APAC to become the fastest-growing region for refractive surgery.

- **How has J&J's expertise in eye health innovations with ophthalmology technologies adding value to the competitive refractive correction market? How have J&J's recent investments and synergistic activities been in APAC?**

Christoph Vonwiller: At Johnson & Johnson, our world-class Vision innovations are geared towards delivering the best outcomes to patients at every stage in their eye health journey. Through our specialty lenses and innovative surgical equipment, we continue to deliver vision solutions to meet eye health needs. The laser vision correction market has been dominated by our precision, personalization, and proven exceptional results for over two decades.

We recently debuted our refractive innovation – the SILK (Smooth Incisions Lenticule Keratomileusis) procedure performed with the next-generation laser vision correction solution. It represents a generational leap in corneal refractive technology, leveraging advanced technologies and designs to deliver improvements in surgical experiences and patient outcomes.

Leading the way across the industry, our commitment continues to remain at the forefront of science and converging novel technologies to advance new standards of care to address patients' eye health needs by developing first-of- its-kind inventions.

- **When compared to other chronic diseases, eye health is often overlooked. Should the rising myopia cases garner attention and resources?**

Dr Rahil Chaudhary: In the realm of chronic diseases, certain illnesses tend to seize the spotlight, while others don't get noticed much. Among these overlooked conditions lies a growing concern: myopia, commonly known as nearsightedness. Despite its prevalence and impact on millions worldwide, myopia often fails to garner the attention and resources it deserves in public health discourse.

Recent studies offer sobering insights into the scale of the myopia crisis. On average, 30% of the global population is currently myopic—a figure that predicts a future where nearly half of humanity, encompassing a staggering 5 billion individuals, will grapple with myopia by 2050.

The prevalence of myopia in Asia-Pacific countries ranges from around 20% to as high as 90% among certain age groups. Such projections demand immediate attention and concerted action on a global scale, as myopia has emerged as the most significant eye health threat of the 21st century. Across the APAC region and beyond, myopia prevalence is on an alarming ascent, propelled by an array of interconnected factors, including shifting demographics, urbanization, and perhaps most notably, the pervasive influence of digital lifestyles. Indeed, the advent of digital technologies has revolutionized our daily existence, permeating every facet of modern life. From virtual classrooms to remote work setups, screens have become ubiquitous companions, shaping the way we learn, work, and interact. Yet, this digital deluge has ushered in unintended consequences for eye health, fueling the myopia epidemic with relentless momentum.

Committing to the forefront of eye care, we emphasize on the urgency of treating myopia as seriously as other chronic diseases. It is crucial to raise awareness about limiting near work, especially among children under 18 years of age. Additionally, reduced exposure to sunlight has been linked to an increased incidence of myopia in this age group. Consequently, many countries have initiated programs encouraging two hours of daily outdoor activities for school-aged children, which have proven effective in controlling the spread of myopia.

On another front, efforts to mitigate myopia include the implementation of control programs that utilize methods like diluted atropine drops, vision therapy, orthokeratology (ortho-K) lenses, and specialized myopia control lenses. However, it's essential to acknowledge the challenges from each country's context. This gap highlights the need for a collaborative approach through public-private partnerships to ensure access to the necessary eyewear to manage myopia effectively at every corner of the world.

- **What are the most significant unsolved challenges concerning vision impairment conditions, and can stakeholders' collaboration mitigate these challenges?**

Christoph Vonwiller: Eye health needs in the Asia-Pacific region are complex and multifaceted, with major ocular diseases that impose a threat to vision differing across countries and subregions. For example, cataracts are the major blinding disease in developing countries, while glaucoma and diabetic retinopathy are priority diseases in high income countries.

Additionally, although the Asia-Pacific region is highly populous and an enormous need for eye care exists for such a population, this currently remains an unmet demand. In Southeast Asia, only 4 out of 10 countries reached the target ophthalmologist-population ratio (1:100,000), and the urban-rural distribution is highly disproportionate with most ophthalmologists located in urban areas.

Thus, as eye diseases and eye health needs become increasingly prevalent in the Asia Pacific region, the development of innovative solutions and effective delivery of eye care is more critical than ever.

Working closely with ophthalmologists, we aim to create a new future for eye health in Asia Pacific and academia to understand, anticipate and address our patient's needs. This is crucial to restore, enhance and advance healthy vision for patients across the region. Eye health innovation requires multi-stakeholder collaboration and a nuanced understanding of the patient journey. We would like to see Asia Pacific playing a bigger role through the number of clinical studies conducted here and even portfolio innovations suited for Asian patients. Being able to partner with ophthalmologists in Asia to co-innovate and test solutions in this region first is critical to redefine clinical outcomes and provide innovative solutions for patients.

- **How can public health systems improve population eye health? How is Asia confronting the growing complexities?**

Dr Rahil Chaudhary: As ophthalmologists, we stand at the forefront for transforming public health systems to safeguard vision for generations to come. From the simple yet profound act of regular eye tests to embracing the 20-20-20.

Public health systems do play a crucial role in improving population eye health through various strategies like conducting regular public health campaigns, educational initiatives and regular screening can raise awareness. Ensuring that eye care services are accessible and affordable to all segments of the population is another major contributor in improving eye health.

Integrating eye health services into primary care settings to allow for early detection and management of eye conditions will help improve overall health outcomes. Also, Training Healthcare Providers including primary care physicians and community health workers, can enhance their ability to detect and manage common eye conditions.

In Asia, the complexities of eye health are being confronted through various strategies tailored to the region's diverse needs. Countries are investing in geriatric eye care to address the increasing prevalence of age-related eye diseases, while also tackling the high rates of myopia among children and young adults through school-based screening programs and awareness campaigns.

Collaborative efforts between governments, and international organizations are to drive innovative initiatives, advanced technologies will improve infrastructure, strengthen healthcare systems, and build capacity in eye care delivery.

Overall, by prioritizing education, accessibility, and integration within healthcare systems, public health systems can make significant strides in improving population eye health, both in Asia and globally.

For instance, in India, public-private partnerships are playing a pivotal role in addressing the significant refractive error burden. This includes the alarming statistic that nearly one-third of children lack access to corrective glasses for myopia, and about two-thirds of adults do not have access to presbyopic correction. Public agencies and the government are spearheading efforts to alleviate this issue, introducing various health schemes to combat not only refractive errors but also preventable conditions leading to blindness, such as cataracts. The synergy between the public and private sectors has been instrumental in enhancing India's medical infrastructure and effectively tackling key health challenges.

- **What is the future outlook for eye health management? How can APAC influence the treatment of ocular conditions in the future?**

Dr Rahil Chaudhary: Ophthalmology, once confined to the realm of corrective lenses and basic surgeries, has emerged as a dynamic and rapidly evolving surgical specialty. The future outlook for eye health management is incredibly promising, driven by ongoing advancements in treatment techniques like cataract and refractive segment, diagnostic tools, one exciting

development on the horizon in the refractive segment is the emergence of innovative technologies like SILK (Smooth Incision Lenticule Keratomileusis).

SILK represents a breakthrough solution for refractive errors such as myopia and astigmatism. By leveraging cutting-edge SILK technology, femtosecond laser lenticule extraction refractive surgery is effectively used to correct vision.This laser technology has proven to be a boon for myopia correction, addressing many of the limitations associated with wearing spectacles. Glasses can be cumbersome and often interfere with daily activities, especially those that are physically demanding, such as sports and swimming.

When evaluating the reasons why individuals opt for refractive surgery, it becomes evident that the primary motivations are often convenience and comfort. Although the aesthetic improvement of not needing glasses is a factor, the decision to undergo such surgeries is usually driven by the desire for a more unencumbered lifestyle.With over 2000 eye surgeries under my belt, I can confidently recommend this breakthrough technology revolution to avoid the cumbersome consequences of physical glasses, especially for athletes and swimmers.

Open innovation and public-private partnerships in APAC are paving the way for us to leverage strengths from different parties, and develop solutions to address this complex healthcare challenge. The Asia-Pacific (APAC) region holds significant potential to influence the treatment of ocular conditions in the future through several key factors like:

- improved eye health care delivery from ECPs to patients
- optimising collaboration between the private and public sector to enhance eye health care delivery
- developing new technological processes to support enterprises that are directly involved in primary eye health care delivery

- **What are some of the emerging innovations in myopia management in Asia? Are the region’s resources and investments adequate to tackle this public health issue?**

Dr Rahil Chaudhary: As APAC emerges as a powerhouse in the realm of healthcare innovation, the region holds immense potential to influence the treatment of ocular conditions on a global scale. The adequacy of resources and investments to tackle ocular health as a public health issue in the Asia-Pacific (APAC) region varies significantly across countries and regions. While some APAC countries have made substantial investments in healthcare infrastructure, research, and education related to eye health, others face challenges due to limited resources and competing healthcare priorities.

Continued innovations in eye surgery have revolutionized treatment outcomes, enhancing safety, precision, and patient satisfaction. At the forefront of this wave of innovation lies SILK—a cutting-edge technology poised to redefine the landscape of refractive error correction. SILK procedure is the newest innovation to help patients achieve excellent vision. SILK provide surgeons with advanced technologies and designs to deliver a high degree of confidence in correcting refractive errors as well as improvements in surgical experiences. The procedure is easy, performed using the next-generation laser vision correction solution that gently creates a small disk-shaped lens, called a lenticule, in the cornea. The lenticule is delicately removed through a microscopic incision, and the cornea is reshaped to help patients see flawlessly.

- **How can public-private stakeholder collaborations evolve eye health literacy in APAC markets?**

Dr Rahil Chaudhary: Public-private stakeholder collaborations hold immense potential in advancing eye health literacy in the APAC markets. By joining forces, we can implement a range of interventions to promote healthy behaviors and enhance awareness about the importance of eye health.

One effective strategy is the implementation of community-based eye health education programs. These initiatives, inspired by programs highlighted in the World Health Organization's report on vision, aim to educate individuals about the significance of regular eye examinations, early detection of eye conditions, and adopting lifestyle habits conducive to eye health. By partnering with local organizations and healthcare providers, we can ensure that these programs reach diverse populations and resonate with individuals across different demographics.

Numerous NGOs, in collaboration with public and government organizations, are actively enhancing eye health awareness through innovative approaches. One notable initiative is the 'Speeding for Sight' program by the Seven Sight Foundation, which uses car rallies as a dynamic and engaging platform to promote eye health. These rallies, conducted on public roads, effectively capture the attention of a broad audience and disseminate important information about eye care.

The excitement and visibility generated by these car rallies make them an effective tool not only for promoting eye donation but also for educating the public about other prevalent eye conditions like cataracts and glaucoma. The success of these events in raising awareness about eye donation has inspired further rallies to address a wider range of eye health issues. This collaborative effort between NGOs, public agencies, and government bodies helps pool resources, extend outreach, and implement innovative solutions to improve vision health across various communities. Furthermore, leveraging digital platforms presents a unique opportunity to disseminate eye health information widely. Through collaborations with technology companies and social media platforms, we can deliver targeted educational content, facilitate virtual eye screenings, and connect individuals with eye care resources in their communities. This approach enables us to reach a broader audience and engage with individuals who may not have access to traditional healthcare services. By working together across public and private sectors, we can evolve eye health literacy in APAC markets and empower individuals to prioritize their eye health.

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