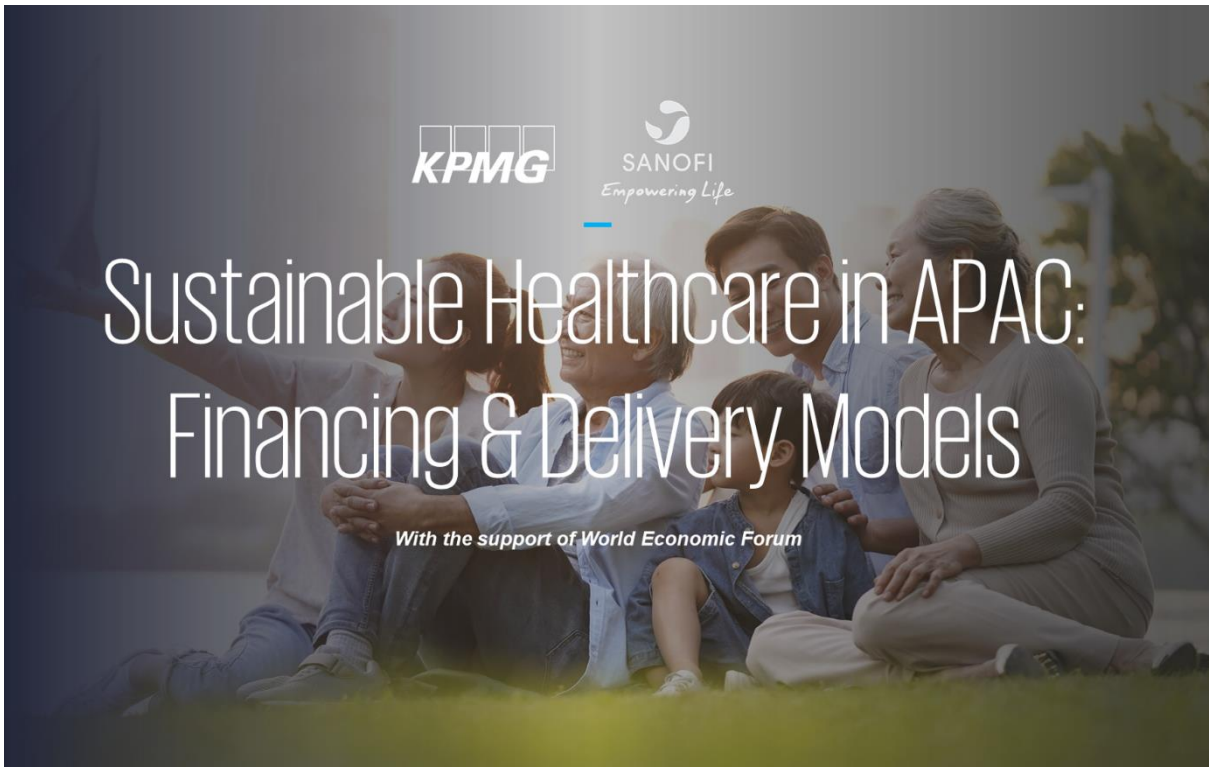
*With the support of World Economic Forum*




# Key Takeaways of Pilot Workshops

*1st February 2021*

*The quest to achieving sustainable healthcare in Asia Pacific cannot be achieved alone. It requires multi-stakeholder collaboration to make a difference. In that spirit, Sanofi and KPMG, with the support of the World Economic Forum (WEF), are producing a position paper surrounding the theme of* ***"Sustainable Healthcare in APAC: Financing & Delivery Models"****, with the objective of identifying and unlocking financing and delivery models in APAC to achieve better health outcomes with a more efficient use of resources.*

*This report will inform programming and high-level dialogue on global health system resiliency at relevant World Economic Forum-hosted events and other relevant country/ regional platforms. To ensure the report offers insightful and actionable solutions, three co-creation workshops were organised in Singapore from 11th to 15th January 2021 to collaborate together with stakeholders across the public and private sectors. Singapore was selected as the pilot market to garner the regional lens, to be followed by country-specific workshops which are slated to take place in China, India, Japan and Vietnam.*

*The workshops covered three different thematic areas: Life-course Immunisation, Diabetes Management and Rare Disease. Each workshop was attended by approximately 25 participants, consisting of policy makers, public and private health practitioners, NGOs and multilateral organisations, digital health innovators and pharmaceutical companies.*

*Chatham house rule was observed during the workshops. The insights and solutions gathered during the workshops have been summarised in this report, with no direct attribution to any participants. However, contributing participants and organisations would be credited as a contributor to the position paper.*

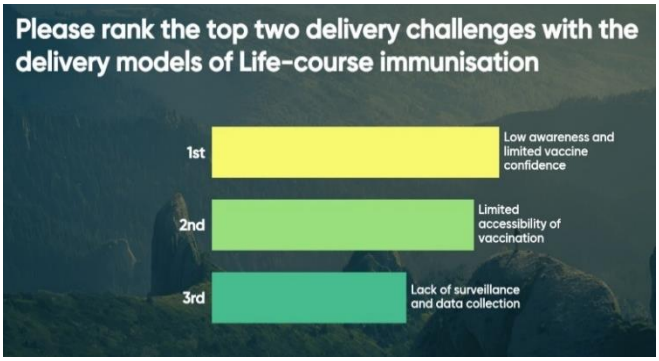
*We thank all workshop participants for their valuable contribution.*

**Life-course Immunisation Workshop**

Immunisation avoids 2-3 million deaths per year and is widely recognised as one of the most cost-effective public health interventions. However, life-course immunisation uptake rate remains low in the Asia-Pacific (APAC). For instance, less than 20% of people above age 50 in Singapore receive Influenza vaccination.

***Despite the benefits, why are people not getting vaccinated?***

Awareness and vaccine confidence are ranked by workshop participants as the top delivery challenge for life-course immunisation, due to a few reasons:




- Most adults are not aware of the importance of vaccination and the immunisation schedule
- Active resistance to vaccination due to uncertainty about the efficacy of vaccination or its components
- The public easily loses track of the variety of vaccinations required across life stages
- General Practitioners are often found with varied commitment in their efforts to recommend vaccinations to their patients

Apart from awareness and vaccine confidence, accessibility of vaccination is recognised as the second biggest challenge. In particular, availability was raised as the key contributor to the concern.

***How can we raise the awareness & confidence of vaccines?***

Solutions proposed for ***awareness and vaccine confidence*** revolve around 3 key pillars:

**Communications:** There is a need to endorse neutral ambassadors to curate the narratives to explain the roles, effectiveness and risks of vaccination, along with information on access in order to empower individuals to make informed choices at different life stages. Social media and social influencers are highlighted as effective touch points. For example in Hong Kong, social media analytics have been used to identify population subsegments against vaccination who are then targeted for re-education.

**Personalisation:** The traditional one-size-fit-all approach could be replaced by personalisation. There was a strong call to define the end-to-end vaccination journey, accounting for variability among countries, vaccine categories, and individual preferences. The journey of a well-vaccinated frequent traveller can differ greatly from that of a pregnant woman who has low awareness of vaccination.

Underlying personalisation is the need for data – the integration of individuals' immunisation records to empower healthcare providers, or AI-powered digital apps to prompt people about vaccination at relevant life stages and events.

**Authenticity:** Confidence is the bridge between awareness and intention for vaccination. One way to increase confidence is to trace vaccines across supply chain so as to ensure integrity, using technologies like blockchain to combat the risk of counterfeits.

However, efforts to raise awareness and confidence may be futile if accessibility of vaccination is not improved.

### *How can we enhance the accessibility of vaccines?*

**Expanded access points:** The administration of vaccines needs to be expanded beyond health centres and into other touchpoints like schools, manufacturing facilities, village centres, and pharmacies, thereby minimising travel effort and easing after work access.

**Innovation in the supply chain:** Availability of vaccination could be further enhanced by minimising wastage in the supply chain, for example through the optimisation of single-use vails. Long term wise, investment in innovations such as heat stable vaccine production could overcome the distributional challenges in areas with limited cold chain capacity and yield significant cost savings.

However, ideas will always remain as ideas if they are not implemented. One way to enforce countries to take actions is to impart the proposed aspects into countries' KPIs for immunisation.

Sustainability is a function of both delivery and financing. The financing of life-course immunisation has been compromised by macro health system challenges such as limited and unsustainable tax base, limited participation of social health contribution, unequitable spread of risk, inaccessibility of private insurance, and unsustainability of external aid.

### *How can we then ensure adequate funding for Life-course Immunisation?*

**Cost benefit analysis:** The quick win is to increase the efficiency and effectiveness of fund allocation via rigorous, bespoke data-backed health technology assessments (HTA). Existing HTAs place more emphasis on cost effectiveness of treatments compared to that of prevention. It often fails to recognise the direct and indirect cost savings immunisation could bring to the individuals and the society at large. Demonstrating cost and benefits of life-course immunisation initiatives stand to create compelling reasons to garner more resource allocation from country health systems. For challenged economies, the data also helps with prioritisation of vaccine categories in the resource constrained setting.

This measure cannot succeed without the support of technology to collect and aggregate data into a national or global platform for better decision making. Not to forget, data ownership and access rights must be properly defined so as to safeguard data privacy.

**Collaboration with private sector:** Relying on public sector alone will not be enough. The collaboration between public and private sector can open up more creative possibilities. Other than channelling corporate taxes for immunisation initiatives, another idea worth exploring is for policy makers to offer tax benefits to the private sector by matching government funding or through public donation for vaccines. A similar mechanism has been deployed in Singapore for Rare Disease funding.

Another idea is to partner with private insurers to offer insurance coverage or incentives for prevention initiatives like vaccination, which in the long run can help insurers achieve lower insurance claims.

Last but not least, life-course immunisation can also be financed via capital market in the form of vaccine bonds.

Multiple ideas were garnered from the workshop, which is the fruition of collaboration among diverse stakeholders across the healthcare ecosystem. The same ingredient is required to move the ideas to the next stage — actualisation. Afterall, sustainable healthcare can only be attained with the push from everyone in the ecosystem.

**Diabetes Management Workshop**

Diabetes is a leading cause of death in most countries. As the most populous region in the world, the Asia-Pacific (APAC) represents a disproportionately large share of the Diabetes burden. What's more, 95% of cases are of the Type 2 variety (T2D). Healthcare systems in the Asia-Pacific must rise to the challenge to tackle this epidemic.

***What are the greatest challenges with the delivery models of Diabetes Management?***

Complexity and inaccessibility of self-management was ranked as the top challenge. This does not come as a surprise, given the fact that over 90% of the tasks inherent to Diabetes Management are done at home and under the direct control of individuals living with Diabetes themselves.


The second ranked challenge was the lack of diagnostics — screening and early detection mechanisms, as evident from the significant amount of undiagnosed Diabetes cases (~50%) in the region.

***Self-management plays a critical role in Diabetes Management, how can we simplify it?***

**Stratification:** The first and foremost step is to acknowledge the individuality of people living with Diabetes and recognise that their needs can vary. It was recommended to stratify them by characteristics such as age groups and severity of condition. Solutions for each stratified segment could further incorporate 4 dimensions:

I. **Self-management model:** Although the term "self-management" implies that individuals are managing their condition by themselves, the degree of which individuals are independently managing their condition can vary. The spectrum can range from being completely self-managed to fully supported by others. Thus, solutions need to be tailored to the spectrum. For instance, tele-medicine, call centres or a health coach could be offered to address the medical and psychological needs of individuals requiring more support.

II. **Information needs:** Information serves as the prelude to awareness**.** Information needs can vary by lifestyles, cultural differences, religions etc. Hence, communications could be adapted for urban and rural areas for higher effectiveness. Aspirational messaging in particular could be adopted to motivate behavioural changes to achieve life goals and to negate the stigma of living with Diabetes.

III. **Touch points:** While individuals living with Diabetes should be the center of the delivery models, the roles of stakeholders such as care givers, healthcare practitioners, patient communities, and employers cannot be neglected. They act as points of influences and play a part in cultivating a sense of support network for people living with Diabetes. Their digital and physical touch points could therefore be mapped for better dissemination of information. The consistency of messaging received by individuals at home or from external parties such as employers would help reinforce behavioural changes.

IV. **Technology:** Technology could be leveraged to empower personalised care and enforce compliances. Tools such as social media analytics, chatbots, AI-powered glucose monitoring tools, and interactive voice systems could serve as a digital companion — collecting information and feeding data points or advice to users and healthcare providers for appropriate actions. However, it is important to note that technology should be used to complement but not to fully replace human interactions. The adoption of various tools also requires support or monitoring from the healthcare practitioners. Not to forget, users' data privacy must not be jeopardised.

While it is important to simplify self-management for individuals living with Diabetes, the initiatives would mean nothing should they are unaware of their diabetic conditions and the need for self-management.

### *With half of the diabetes cases remain undiagnosed in Asia Pacific, how can we improve diagnostics?*

**Education:** Raising the awareness of the symptoms and risk factors via proper education could nudge individuals to seek diagnosis when they experience similar symptoms. Going beyond the theory, trainings via experiential diabetic episodes could help deepen the understanding of the symptoms.

**Access of screenings:** To uncover undiagnosed Diabetes cases, both "pull" and "push" strategies are required. Instead of waiting for individuals to seek diagnosis, policy makers and healthcare practitioners could proactively screen individuals who are at risk. As Type 2 Diabetes is caused by both genetic and environmental factors, people with a family history of Diabetes and with high exposure to risk factors could be mandated for screenings.

Diversifying points of screenings such as setting up community health centres and deploying nurses for testing could increase diagnostics rate, particularly among remote areas with limited access to healthcare facilities.

**Incentives for screenings:** Incentives have been proven to be instrumental in encouraging behavioural changes. "Pay for performance" is another mechanism that could be used to incentivise the public or healthcare providers to pursue desirable outcomes such as increased screenings.

The aforementioned solutions could fill the gaps of the delivery models, but not without the backing of funding.

### *How can we ensure adequate funding for Diabetes Management?*

Similar to the solutions proposed for life-course immunisation, governments are urged to reallocate funds to high impact areas such as screenings, primary care and education, and to raise funds from various creative mechanisms such as social impact bonds. However, what sets Diabetes Management apart from life-course immunisation is the need for consistent day-to-day behavioural changes, which raises the importance of:

**Personal incentives:** Offering incentives for long term behavioural changes can be a win-win solution for stakeholders such as private insurers. When the insureds achieve better health outcomes, the insurers incur lower medical fee reimbursement in the long run. Such an approach is not uncommon. Insurers in the United States offer reduced premiums for policy holders who receive annual healthcare screenings. Others such as AIA offer comprehensive digital wellness programmes like rewarding points for gym visits and footsteps clocking to motivate the insureds to adopt health lifestyles. Resources need to be allocated efficiently to ensure the impact as many programs in the current market lack effectiveness in driving behavioural changes.

Such measures could be transferred to enforce Diabetes treatment — adherence of insulin intakes and glucose monitoring. For instance, users could be rewarded with lower subscription fee for their glucose monitoring apps if they maintain their HbA1C level consistently. Governments should therefore provide a conducive environment for digital health players to develop various cost-effective and leapfrogged solutions. Germany for one, recognises the importance of digital health players and offers 1-year sandbox period for new players to access the market and receive full reimbursement.

**System incentives:** Personal incentives aside, system wide incentives are also required for wider impact. One way is for government to encourage employers to provide holistic programs and annual health screenings to their employees to help detect and manage Diabetes early. Early diagnostics and intervention could delay the onset of condition, resulting in less productivity loss at work, which is another win-win solution.

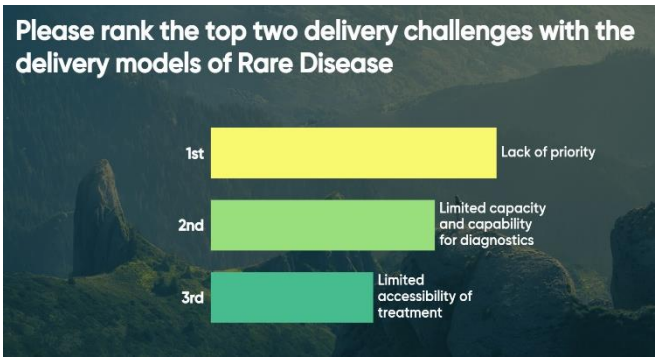
As Diabetes is associated with a large number of comorbidities and its implications can span across aspects, incentives for better care-coordination across stakeholders in the ecosystem could enhance quality of care while optimising cost. Taiwan for instance, deploys Sin Tax to fund integrated Diabetes Management, aligning different sectors along the patient journey with KPIs and reimbursement mechanisms. Last but not least, as opposed to government-wide initiatives, policy makers could also create funding capacities at local cluster levels to diversify sources of funding and increase the flexibility of fund allocation.

Patients living with chronic diseases such as Diabetes requires daily interventions across various aspects of their lives. It takes a village — diverse stakeholders in the ecosystem — to care for individuals living with Diabetes. Let us push it forward together.

**Rare Disease Workshop**

Rare Diseases, also referred to as orphan diseases, are characterised by having low prevalence (typically 1 in 2,000 people) yet being chronically debilitating and severely life threatening. Approximately 200 million people live with Rare Diseases in Asia Pacific (APAC). Unfortunately, due to the low prevalence for each disease, they are often not prioritised. Health systems in APAC must address Rare Diseases head-on so as to realize the goal of Universal Health Coverage – leave no one behind.

***What are the greatest challenges with the delivery models of Rare Diseases?***




Expectedly, the lack of priority was ranked as the first and foremost concern, as reflected through the lack of official definitions and policies for Rare Disease in many countries.

Limited capacity and capability for diagnostics was ranked as the second top challenge, contributed by the lack of genetic counselling, pre-natal screening, and advanced new-born monitoring. This is further compounded by the lack of advanced knowledge among healthcare professionals who are often not trained to recognize diseases that occur infrequently. As a result, patients can take up to 7 years to receive the correct diagnosis.

***How can we increase the priority assigned to Rare Diseases?***

**Value story:** While Rare Diseases only affects marginal population, they consume a disproportionate amount of healthcare resources relative to their prevalence. This is not including the emotional strain and the impact on many other aspects of life, such as their ability to work (carers as well as sufferers) and mental health. These aspects may be harder to quantify but are no less important or costly. Collecting and aggregating data and patient stories to demonstrate the burden of diseases both quantitively and qualitatively by trade associations and key opinion leaders (KOLs) could make a compelling case for politicians to assign higher priority. Changing the narratives of Rare Disease — as simple as labelling them as "unique" instead of "rare" could change how they are perceived. Bear in mind that many diseases such as cancer were once considered "rare" when they were first discovered.

**The power of unity:** *"Alone we can do so little, together we can do so much."* Till date, there are 7,000 known Rare Diseases and multiple patient platforms. Mirroring the unity observed in the oncology field, patient groups could consolidate voices with common asks across platforms such as online communities to form a strong and impactful voice. Such an approach has been met with success in India for the disabled community, where hundreds of disability patient groups came together and successfully made their voices heard, resulting in a landmark legislation.

**Grouping of diseases:** Due to resource constraints, diseases with higher prevalence are often prioritised. Similarly, within the 7,000 known Rare Diseases, there is variability in terms of prevalence, characteristics and the type of treatments required (one-off intervention vs life-time care support). Establishing standardised framework and parameters for grouping of diseases could help prioritise high impact Rare Diseases.

Establishing the priority of Rare Disease at the national level is half of the battle. The remaining half is to provide patients with access to the correct diagnosis so that they stand a chance to receive the necessary treatments.

***How can we increase the capacity and capability for diagnostics?***

**Early diagnostics:** Raising the awareness of the symptoms among patients could bring the patients to the doctors timely, averting permanent damage or even death. Leveraging the power of social media to initiate campaigns as simple as the past successful ILS Ice Bucket Challenge could help generate the awareness of Rare Diseases.

Another measure that could be considered is to direct online searchers to the Rare Diseases information section whenever certain key words are searched.

A top down approach could also be utilised to enforce screenings. For example, healthcare practitioners could prompt patients at risk to receive screenings based on their past health records and family history. Collaboration with digital health innovators would be required to develop a comprehensive view of patients' health records and family history whilst not compromising patient privacy.

Since most Rare Diseases are attributed to a genetic cause, new mothers could be advised to receive new-born screenings for early detection. New-born screenings have been conducted on more than 90% of the new-borns in Singapore. The widely adopted screenings have revealed that Rare Diseases affect about one in 3,000 births. The incidence rate provides an important impetus for the policy makers to assign higher priority.

**Access of diagnostics:** For patients who face challenges in getting a diagnosis from traditional medical practices, healthcare practitioners could direct them to global programs for undiagnosed diseases such as The Undiagnosed Diseases Network International (UDNI). Nonetheless, access of diagnostics has to be paired with affordability.

While diagnostics is important, what comes after it — access to treatments are equally important. However, often, the residual medical expenses of patients with Rare Diseases exceeded 3 times of their own income.

***How can we ensure adequate funding for Rare Diseases?***

**Collaboration with private sector:** Rare Disease patients are often subject to life-long treatments. Relying on policy makers alone for funding will not be enough to provide financial sustainability across patients' lifespans. Public and private sectors need to come together to narrow the funding deficits. Creative mechanisms such as issuing Social Impact Bonds and leveraging financial data to facilitate provision of instalment plans to patients could be explored. While providing instalment plans could expose financial institutions to reputational risks, it could be mitigated by partnering with stakeholders such as pharmaceutical companies for collateralisation.

Tackling Rare Diseases requires a global effort. Another role that financial institutions could play is to act as an intermediary to facilitate cost-effective cross-border funds transfer among patient organisations.

**Cross-border sharing:** There is strength in regional collaboration, as evident from the formation of APEC Rare Disease Network and Action Plan. The existing Action Plan could be extended to bringing countries together to:

(1) Standardise Rare Disease Matrix such as defining high impact Rare Diseases and their treatment needs – one off vs recurring
(2) Establish standard package of care for different Rare Diseases to facilitate financing capacity planning
(3) Devise standard legal frameworks to facilitate cross-border sharing of resources and data
(4) Form regional COEs to drive concerted research effort and to map resources needs

Closer collaboration among APEC countries could bring the region to greater heights – streamlining resources and enabling patients with wider access of care. For instance, countries with insufficient healthcare infrastructure could send patients' test results to regional COEs for further diagnostics.

The aforementioned initiatives require hefty initial investments before countries can reap significant savings in the long run. One way is to leverage on medical tourism to attract non-Asian patients to offset financing needs in other areas.

The actualisation of the various proposed financing mechanisms requires the backing of data to quantify the impact and to facilitate prioritisation based on financial capabilities. Afterall, data speaks louder than words.

80% of Rare Diseases have genetic causes. While most Rare Disease patients are deprived of the choice to determine their fate, we have the option to provide them with more choices in diagnostics and treatments. Most of the sufferers are children, they rely on us to make their voices heard. Because if not us, then who?