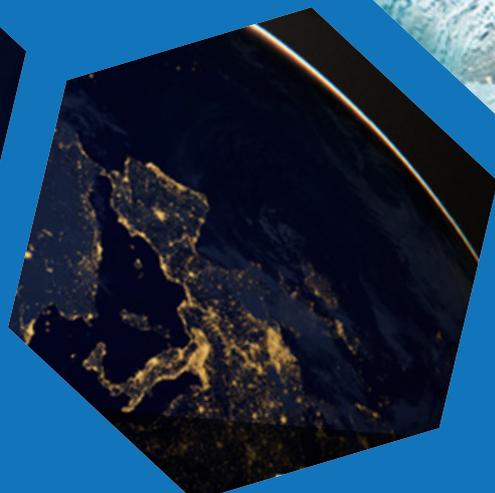
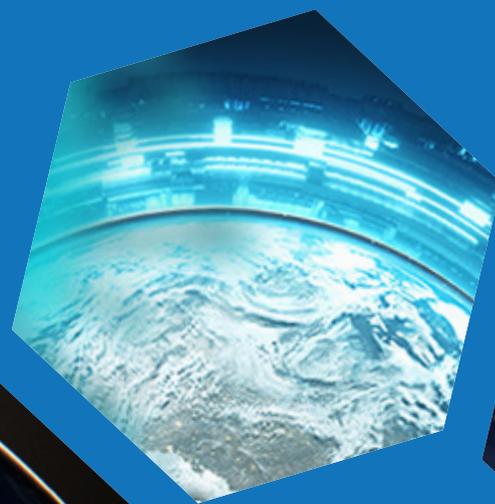
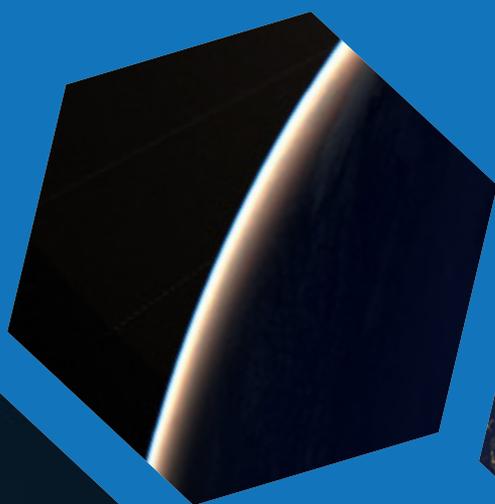


EAPM reflects:

How to build resilient health systems after COVID-19



European Alliance for
Personalised Medicine

Future
Proofing >>
Healthcare

Executive Summary

Not all countries or experts have agreed about the right responses to the COVID-19 pandemic, but an international panel brought together by the European Alliance for Personalised Medicine (EAPM) and Future Proofing Healthcare on 8 May defined plenty of common ground from among their diverse experiences.

The consensus, in brief, was that greater international collaboration must be part of the answer – and that making better use of the abundance of data and of digital health has a major role in both the immediate reaction and in planning future prevention. The panel characterised resilience in 2 dimensions- responding effectively to the immediate public health needs, and being able to mobilise quickly across all of government and society to address public health emergencies including strengthening systems for the future. In both dimensions, cooperation and data were critical enablers.

In the face of the many wide cultural, political and economic differences at international, national and regional levels, a panel of clinicians, senior health officials, academics, industry executives and patient representatives from Europe, India, Singapore, China and Australia coincided in their views of many of the lessons to be learnt.

Jeremy Lim of the National University of Singapore saw the inadequacy of current systems as evidence of the need for dialogue across geographies, cultures and political systems. Former Irish health minister Mary Harney lamented that countries have been acting alone and hoped the pandemic will be “a wake up call for all of us”. Shanghai Health Development Research Centre director Chunlin Jin foresaw the epidemic contributing to “the strengthening of the global village concept”. According to Stanimir Hasurdijev of the National Patient’s Organisation of Bulgaria, a crisis of this nature “can’t be handled just by countries alone – they must learn more solidarity.”

The wider failures in cooperation were echoed in the specific area of data, where – as Harney said – it was “a hugely missed opportunity that we have so much data in our healthcare systems and we’re not able to use that to the benefit of patients to deliver better outcomes”. Krishna Reddy, director of India’s Access Health International, hoped that the pandemic would be “a useful push” to persuade the health sector to at last move decisively into digital technology.

Executive Summary

For Bogi Eliassen of the Copenhagen Institute for Futures Studies, capitalising on data in a new healthcare context means widening the embrace of data beyond clinical or direct health data into relevant behavioural data, such as in contact tracing.

The challenges of data privacy could be overcome by new and better governance frameworks that would provide institutional trust, with greater reliance on reassurance from the healthcare community about re-use of data, argued Leanne Raven, CEO of Crohns & Colitis Australia.

And as EAPM executive director Denis Horgan concluded: “Better use of data has positive implications way beyond the immediate challenges of the current pandemic”. Tikki Pangestu, former director of WHO research policy and visiting professor at Lee Kuan Yew School of Public Policy, concurred, arguing for strengthening international solidarity on the basis of trust, collectively agreeing that the overall goal is to save humanity. Roche APAC Area Head Rachel Frizberg underlined the merit of “holding on to the relationships formed through this crisis, so as to evolve together a new possibility for the future of healthcare”.

Key conclusions from the panellists of this conference included:

- **Stronger, more systematic international cooperation and dialogue between stakeholders across borders and disciplines;**
- **Routine use of data across silos to guide policy decision making**
- **The need for effective leadership at all levels;**
- **Better targeted interventions integrated for coherence with allowances for individual circumstances in building a public health strategy;**
- **Putting in place legal frameworks to enable the sharing of data; and**
- **Accept that science and evidence should predominate over politics.**

EAPM will be organising a series of similar video conferences that will also produce recommendations for improving healthcare.



Denis Horgan
Executive Director,
European Alliance for
Personalised Medicine



Jeremy Lim
Leading Public Health Expert,
National University of Singapore

Recommendations and Consensus from the International Roundtable

Key recommendations from the panellists included:

- Greater international cooperation – to build a higher level of trust on improving outcomes for patients. “But cooperation has to be pre-planned to be effective. You can’t start cooperating in the midst of a crisis. And cooperation depends on dialogue between stakeholders and sharing best practices across borders. We are stronger, more agile and efficient when we listen to and work with each other”.
- The need for leadership: “Powerful countries with strategic assets need to show leadership, and to lead by example”.
- Better application of targeted interventions to protect public health: “Rethinking our approach to using health data in light of the current crisis may assist us in knowing why and how people get sick and help us do a better job of keeping them well.”
- Better understanding of individual circumstances in building a public health strategy, so as to personalise the response to the crisis: “Personalised healthcare can enable and strengthen health system resilience.”
- Putting the right legal frameworks in place to enable the sharing of data in response to health crises, and develop the European Health Data Space, “which could explore unexploited data potential”.
- Learn that science and evidence should predominate over politics.

EAPM reflects:

How to build resilient health systems after COVID-19

An international problem needs an international solution – and on that basis, EAPM organised an international exchange among health experts on 8 May to assess how health systems should react to the game-changer that the coronavirus pandemic has become. The consensus, in brief, is that greater international collaboration must be part of the answer – and that data and digital health have a major role here. The increasing ability to analyse huge amounts of data using digital technologies will improve understanding of how diseases like COVID-19 affect individuals, and will help to identify patterns of illness across populations. That can contribute to building better prepared and more resilient health systems, to help the healthcare community to advance health systems towards a more sustainable, personalised, integrated and digital future.

The European Alliance for Personalised Medicine and FutureProofing Healthcare brought together experts from Europe, India, Singapore, China and Australia to discuss the feasibility of closer cooperation in healthcare – and particularly how to harness the power of data – in the face of the many wide cultural, political and economic differences at international, national and regional level.

Cooperation – or not

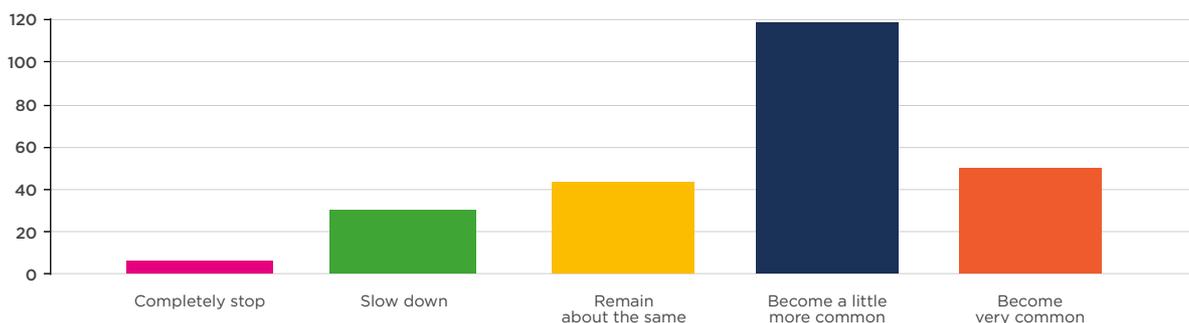
One of the areas of greatest consensus among the panellists was the lack of cooperation in the face of the pandemic. They each offered their own perception of the widely documented differences among countries and constituencies from the very beginning of the outbreak, with the wide international disagreements evident even on the nature, the severity, the spread and the solutions to COVID-19, and with closures of borders and export bans on medical equipment. Jeremy Lim of the National University of Singapore said the pandemic had demonstrated the inadequacy of current systems and provided a “disappointing record of international cooperation”, pointing to the need for dialogue across geographies, cultures and political systems. Former Irish health minister Mary Harney lamented that countries have been acting alone.

EAPM reflects: How to build resilient health systems after COVID-19

Shanghai health director Chunlin Jin highlighted the lack of international collaboration and said “the blame game is no good to anyone”. He added that the epidemic contributes to “the strengthening of the global village concept”, and “all countries should strengthen cooperation, communication and mutual help”. According to Stanimir Hasurdijev of the National Patients’ Organisation of Bulgaria, a crisis of this nature “can’t be handled just by countries alone – they must learn more solidarity”. He said he wanted to see a much more coordinated approach between countries in the future.

How do you expect international cooperation to progress following COVID-19? International cooperation on health will...

Type	Completely stop	Slow down	Remain about the same	Become a little more common	Become very common
Votes	4	30	43	118	50
Percentage	2%	13%	18%	49%	21%

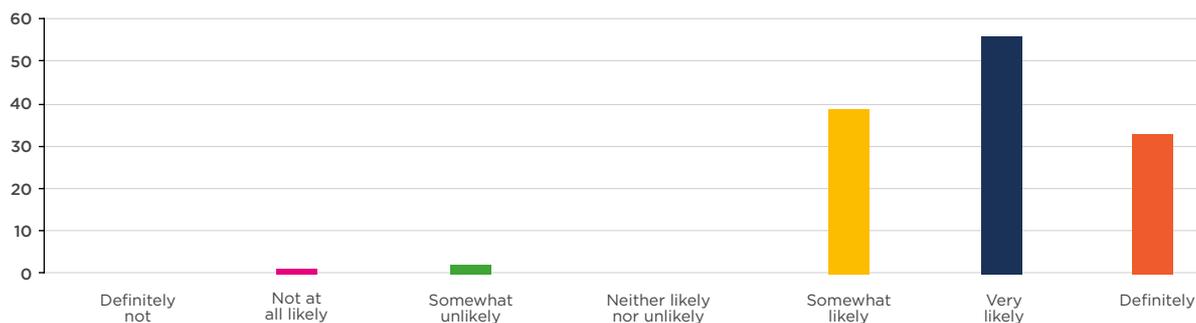


Many of the resulting difficulties subsist. EAPM’s video conference reflected on the magnitude and scale of the changes, and at the same time demonstrated many of the gaps in understanding and interpretation between different approaches. Brigitte Nolet, general manager of Roche Belgium, set the tone for the meeting with her introductory observation that; “When we first started hearing about COVID-19 at the end of last year, no one could predict how significantly our lives would change in a matter of months”. But more positively, the exchanges also revealed a broad consensus that the crisis is a prompt to greater sharing and mutual understanding – on data and on many other areas. Speaker after speaker recounted experiences that have shown some new appreciation of the merits of sharing and of care for others since the outbreak of the virus.

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There’s a lot of hope that digital health will be a more central part of health systems after COVID-19 - how likely do you think that is?

Type	Definitely not	Not at all likely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	Definitely
Votes	0	1	2	0	39	56	33
Percentage	0%	1%	2%	0%	30%	43%	26%



Data hits and misses

The wider failures in cooperation in tackling the pandemic are echoed in the specific area of data, remarked many of the panellists. Harney saw “a hugely missed opportunity that we have so much data in our healthcare systems and we’re not able to use that to the benefit of patients to deliver better outcomes”. She saw this as “a wake up call for all of us, and I hope that we heed it”. Similarly, Krishna Reddy, director of India’s Access Health International, noted that “health was the last sector to move into digital technology”, seeing the pandemic as as “a useful push”. Medical data is still not being captured, and there is a need for a systems approach to digital health globally, not just in India.

As EAPM executive director Denis Horgan commented, the different responses among distinct jurisdictions have highlighted the differing interpretations of how data can be utilised, and the limitations around collecting high quality data, getting access to it, and sharing it. Issues of data transfer, data privacy, ownership, and conflicting agendas continue to hamper the exploitation of the abundance of data. Lin said that data has been pushed into the limelight “because the world cannot tolerate another lockdown of this magnitude”. But “while we all know what we need to do in theory, implementation of that theory is another issue.”

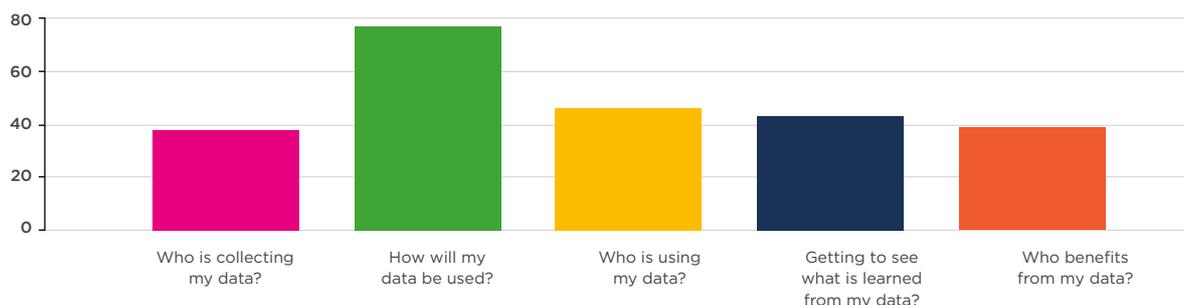
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For Copenhagen Institute for Futures Studies Futurist Bogi Eliassen, capitalising on data in a new healthcare context means widening the embrace of data beyond clinical or direct health data into relevant behavioural data, for instance in contact tracing. He also urged greater combination of data from different sources, and across the customary borders. “We need not to work in silos,” he said. Joanne Hackett, former chief commercial officer of Genomics England spoke of the UK’s “great clinical data, great genomic data, great public health data” that are sitting in distinct silos that should now be better connected. Repositories would be more valuable if combined, and the benefits in a data-driven healthcare system would be better decisions not just for individuals but also in aggregated data that would make possible better care for all. Lin hoped that the pandemic drives healthcare at last into a more wholehearted adoption of digitalisation, a process that started two decades ago but then lost impetus. And Harney saw the current crisis as “igniting the importance of data and the role of virtual care”.

There are obstacles of a technical nature. Horgan pondered how to implement standards that exist at national or regional levels and make them interoperable. On telemedicine, he saw its role in speeding patient throughput, but was conscious of the limited demonstrations as to how it could improve care. There are unanswered economic questions too: as Eliassen pointed out, it is a mistake to see telemedicine as more cost-effective; it may, he said, be more effective, but is not necessarily cheaper.

What would you personally see as the most significant factor that determines how willing you would be to share your own data?

Type	Who is collecting my data?	How will my data be used?	Who is using my data?	Getting to see what is learned from my data?	Who benefits from my data?
Votes	38	77	46	43	39
Percentage	16%	32%	19%	18%	17%



Privacy and data sharing

However, it is at the level of data privacy and governance that some of the greatest obstacles were identified by the panel. In the EU, the General Data Protection Regulation can represent a handicap to data re-use, as privacy concerns impede transmission of data for some healthcare uses. Horgan suggested separating healthcare data from other types of data covered by the law.

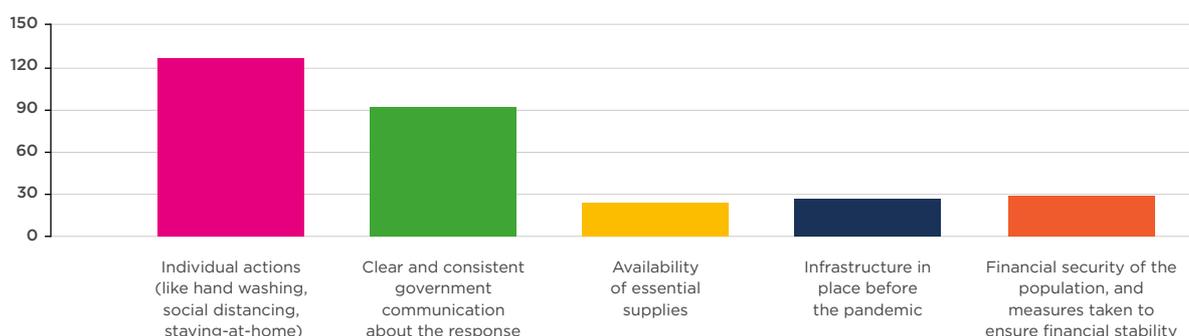
Hackett felt that it was necessary to establish systems in which the patient is always the main custodian and owner of his or her data. But the view from elsewhere was more nuanced. In India, said Reddy, “the privacy of the individual is subservient to the population greater good”, and “that should be the guiding principle when we address privacy”. Leanne Raven, CEO of Crohns & Colitis Australia, noted that patients’ expectations have been raised, and that new thinking is needed on old problems of governance. She suggested greater reliance on reassurance from the healthcare community about re-use of data: the public has more trust in healthcare providers than in politicians, she said.

Eliassen also took the view that on personal data, “We should be very cautious with flagging too much anonymity”. A new form of privacy is needed, because without institutional trust it will be hard to make progress. The issue is not so much privacy itself as the framework around it. Hackett echoed the importance of trust. Patients want the best possible treatment, and are ready to trade data for better care, she felt; but that means creating a framework that builds trust, with transparency over how and by whom patients’ data will be used. Raven too argued for greater transparency so that it is clear who benefits, so that patients can then make their decision over data sharing in an informed manner. But she felt that would require legislation to provide a framework that patients could rely on. Reddy too felt that telemedicine’s growth over the last decade — in the wake of wide mobile phone ownership — would benefit from legislation to provide a framework to regularise its use.

As Lin summarised the discussion, “It all boils down to trust and transparency where there is a clear benefit; then there is more readiness to share data”. Decisions in the wake of COVID-19 will influence the healthcare context for years to come - “and data will be one of the issues at the top of the list”.

Which of the following has made the BIGGEST difference in how successful your country’s response to COVID-19 has been?

Type	Individual actions (like hand washing, social distancing, staying-at-home)	Clear and consistent government communication about the response	Availability of essential supplies	Infrastructure in place before the pandemic	Financial security of the population, and measures taken to ensure financial stability
Votes	125	91	23	26	29
Percentage	43%	31%	8%	9%	10%



Different approaches and wider implications

Diverse views were expressed on the right approach to tackling COVID-19. For Chunlin Jin, constructing a prevention and control system depends on centralization and unification, with “a unified public health emergency management pattern with unified leadership, matching power and responsibility, and authority and efficiency.” Tikki Pangestu, former director of WHO research policy and visiting professor at Lee Kuan Yew School of Public Policy, similarly attributed Singapore’s success to “a population which trusts the government, which is happy to follow and be compliant to government directives without too much questioning or protesting”. He added that Singapore established an inter-agency task force involving all the key line ministries: “Most importantly, there was unity in purpose.”

The need to move fast and decisively was seen as crucial, with targeted protective measures, early and extensive testing, and contact tracing. Speed of response has since been vigorously endorsed as a game-changer by authorities as eminent as WHO’s Michael Ryan. Chunlin Jin spoke of China’s shift to segregate fever patients from others by changes to hospital organisation, and by infrastructure adjustments to allow for expansion in emergencies.

Hasurdijev drew attention to the difficulties that patients with other diseases have suffered: “Patients with pre-existing diseases have the highest mortality rate and show the weaknesses of healthcare systems”. He urged seizing the opportunity to make closer health policy connections between non-communicable and infectious diseases, to “learn lessons and work across all health fields as a new priority for governments as an investment rather than a cost”. The EU can no longer ignore health under the pretext of member state sovereignty, he said. The EU cannot go on relying on national governments who ignore diabetes and obesity which is also killing people, he declared. Urgent steps are needed to prioritise health at EU level: “Citizens expect results from this cooperation.”

Horgan also commented on patient experience: “Other patients are facing challenges all the time – and all societies should take account of the fact that we will all one day be patients and will all benefit from better quality of life”. He said it was important to drive better underlying health, pointing out that one in three people in Europe get cancer each year – “also a pandemic of a sort.” And diseases like cancer or diabetes have no borders. So the question is how to develop a framework to tackle this collectively. Better use of data has positive implications way beyond the immediate challenges of the current pandemic, he said: “Knowing why and how people get sick will help us to do a better job of keeping them well. If fewer people need treatment, that frees up scarce resources to better manage public health. Health systems will be able to tackle challenges like increasing rates of cancer or dementia, and be better equipped to manage any future crises like this pandemic.” Dedicated value-based reimbursement pathways for innovative diagnostic technologies need to be developed and implemented consistently across Europe, ensuring equal access for patients. The EU should establish a policy framework that establishes a business model that support public-private cooperation to make optimal testing available across the EU by 2023.

Pangestu also argued for strengthening international solidarity on the basis of trust, collectively agreeing that the overall goal is to save humanity. The practical impact of lockdown on relationships and mental health was explored in the potential lessons it carries for the broader organisation of society, which prompt profound reflection on health and social policy priorities. The readiness of populations to maintain social distancing or to comply with confinement has shown that alongside their innate self-protection instincts, humans are capable of functioning en masse with a sense of responsibility to others too, by accepting the personal cost of behaviour that serves to protect the population at large.

Recommendations and consensus from the international Roundtable

Key recommendations from the panellists included:

- Greater international cooperation – to build a higher level of trust on improving outcomes for patients. “But cooperation has to be pre-planned to be effective. You can’t start cooperating in the midst of a crisis. And cooperation depends on dialogue between stakeholders and sharing best practices across borders. We are stronger, more agile and efficient when we listen to and work with each other.”
- The need for leadership: “Powerful countries with strategic assets need to show leadership, and to lead by example.”
- Better application of targeted interventions to protect public health: “Rethinking our approach to using health data in light of the current crisis may assist us in knowing why and how people get sick and help us do a better job of keeping them well”.
- Better understanding of individual circumstances in building a public health strategy, so as to personalise the response to the crisis: “Personalised healthcare can enable and strengthen health system resilience.”
- Putting the right legal frameworks in place to enable the sharing of data in response to health crises, and develop the European Health Data Space, “which could explore unexploited data potential”.
- Learn that science and evidence should predominate over politics.

Conclusions

If health systems are to be made more resilient for the future, there is, the conference concluded, a need for strong encouragement for recognising the mutual interest in working more closely together in tackling the major challenges identified. “This challenge doesn’t end when this crisis is over”, said Nolet. Lin declared himself optimistic: the pandemic is an “adrenalin shock”. ‘If COVID-19 was a test, the world only just passed’, he said, and he is hopeful that after this “existential crisis of a generation” it will do better next time.

Horgan noted that citizens are now calling for more healthcare investment. And Harney saw a “silver lining” that much-needed changes in healthcare systems will now happen more quickly. Roche APAC Area Head Rachel Frizberg underlined the merit of “holding on to the relationships formed through this crisis, so as to evolve together a new possibility for the future of healthcare”.

COVID-19 could be an opportunity for national and personal reinvention and rebalancing: after all, after the Black Death came the Renaissance.

About EAPM

The European Alliance for Personalised Medicine was launched in March 2012, with the aim of improving patient care by speeding development, delivery and uptake of personalised medicine and earlier diagnostics, through consensus.

EAPM began as a response to the need for a wider understanding of priorities in personalised medicine and a more integrated approach among stakeholders. It continues to fulfil that role, often via regular major events and media interaction.

Our stakeholders focus not just on the delivery of the right treatment for the right patient at the right time, but also on the right preventative measures to ensure reliable and sustainable healthcare.

The mix of EAPM members and its broader outreach, provides extensive scientific, clinical, caring and training expertise in personalised medicine and diagnostics, across patient groups, academia, health professionals and industry.

Relevant departments of the European Commission have observer status, as does the EMA, and our engagement with MEPs and Member State health ministries in key policy areas is a crucial part of our ongoing work.

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