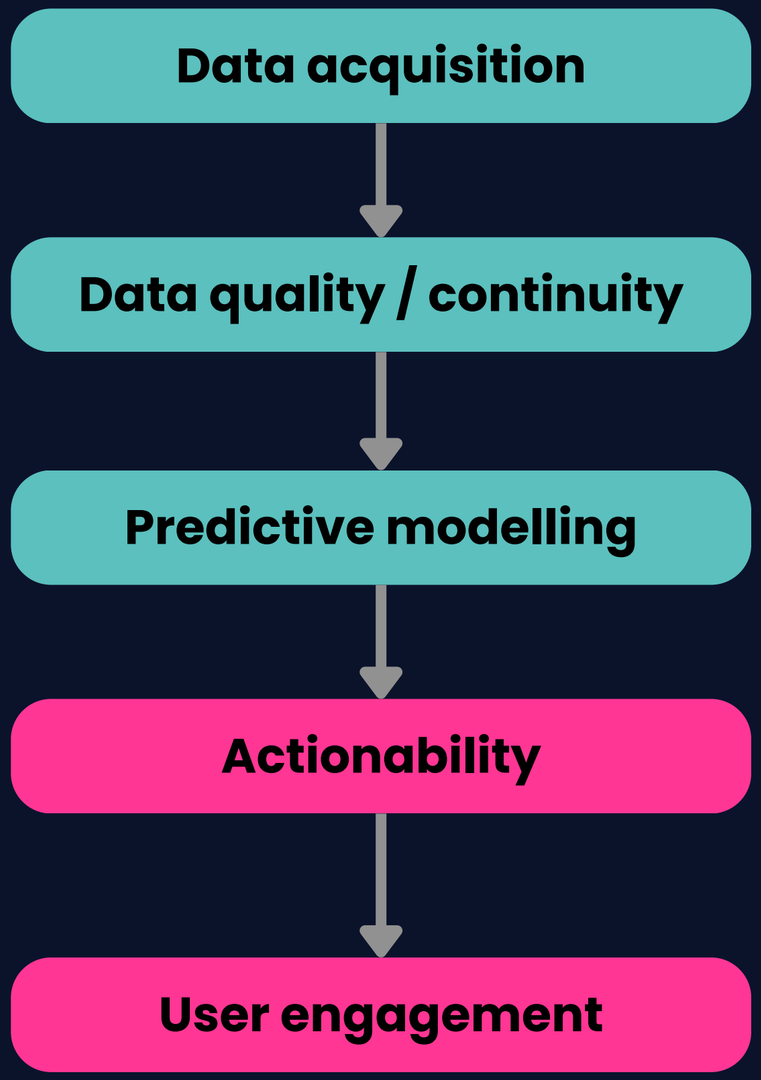
The Preventive Care Landscape in Southeast Asia

Trends and assessments

Preventive health: an overview



Preventive health looks to anticipate risk and intervene early, preventing later-stage treatments and complications. The ideal case of preventive health is to intervene before symptoms emerge.

To this end, preventive health is seperated into two parts: **information** (acquiring, processing, and evaluating sufficient data so a decision can be reached) and **action** (deciding on the correct course of treatment based on the information available, to implement an appropriate intervention or treatment.)

Information includes:

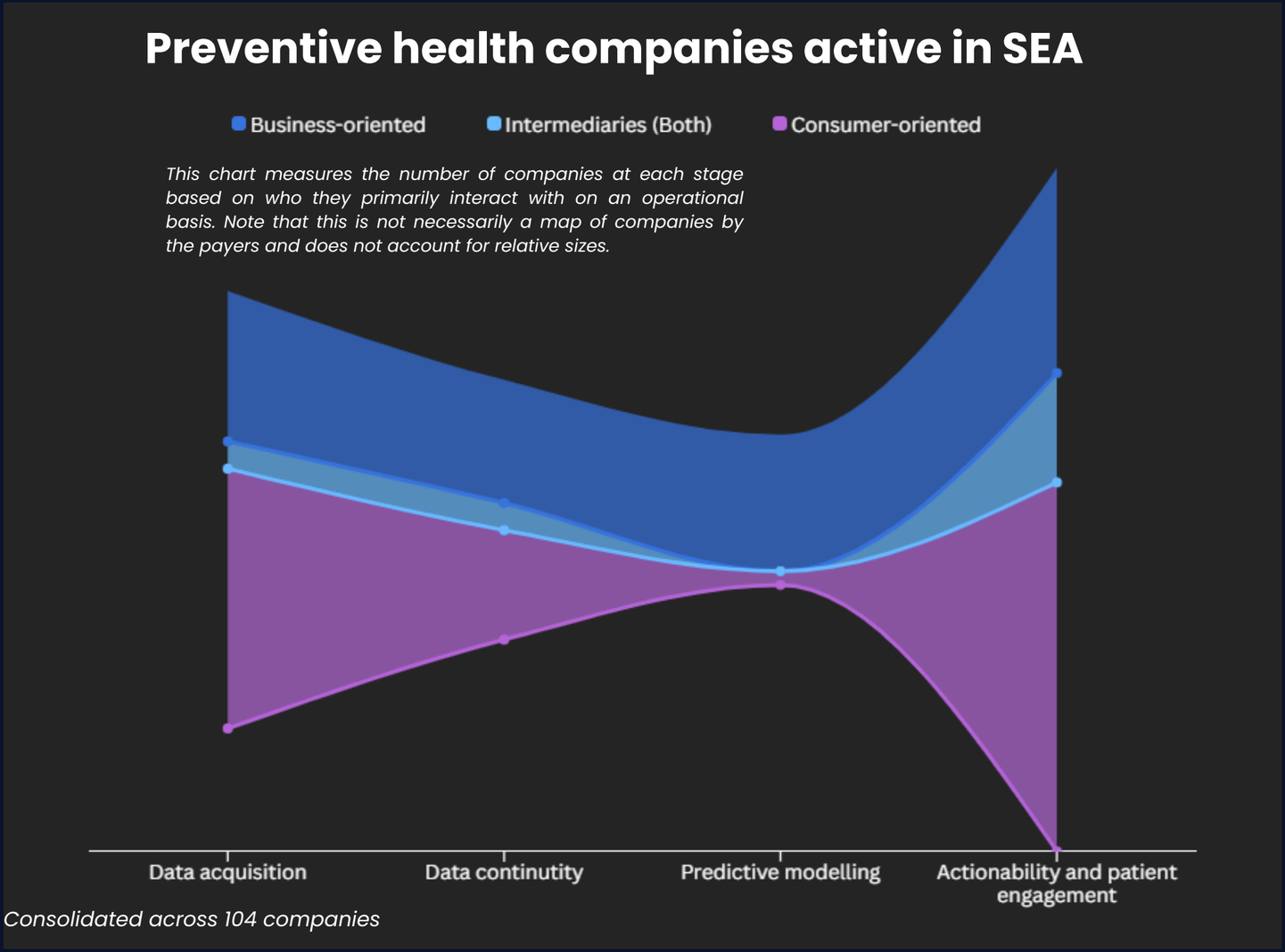
- Data acquisition: Whether there is sufficient and relevant data about a person's health signals - ranging from physiological metrics (e.g., heart rate, glucose levels) to behavioral, environmental, and genomic data. Multimodal, continuous inputs are often necessary for accurate early detection.
- Data quality / continuity: Whether signals are reliable, well-calibrated, and usable for longitudinal modeling. Incomplete, noisy, or fragmented data streams can severely limit predictive accuracy.
- Predictive modelling: The accuracy of prediction or early flagging of risk. Models must not only predict correctly, but also do so early enough to allow for meaningful intervention. This step often improves over time through feedback loops from actual outcomes, forming a learning health system.

Action involves:

- Actionability: Whether predictions translate into actual decisions or changes in care. This depends not just on accuracy, but also on clinical relevance, interpretability, cost-effectiveness, and integration into provider workflows.
- User engagement: Whether people care about and act on predictions. Engagement can be passive (e.g., taking a prescribed medication) or active (e.g., sustained lifestyle change, continuous data sharing).

Clinical actionability and system integration are bottlenecks: systems are useless if they can't act.

The preventive healthcare landscape of Southeast Asia



Across the SEA landscape, we see three key factors impeding greater adoption of preventive care:

- **Regulatory bottlenecks leading to poor data pipeline:** risk profiling at a clinical grade remains unreachable for most startups as regulatory certification poses a large hurdle. Most platforms capable of clinical grade predictive modelling directly serve healthcare providers and act as a software aid without directly anticipating treatment needs at the personal level.

- **Plenty of patient-level data is available, but is not being utilized sufficiently**: this provides an easy entry point, but consolidation and especially prediction are not considered. Instead they move directly to engagement, which bypasses the challenging points of adoption but also leads to market saturation.

- **Data continuity remains limited on a consumer level:** data consolidation across multiple biomarkers is used mostly for clinical use but is not consolidated on a consumer level for self-care and moderation.

Predictive modelling for consumers presents a major gap

The Gap

At the final stage of the data pipeline, consumer-oriented innovations fall to zero. This signals a structural absence of tools that:

- Translate data insights into understandable, personal action steps.
- Enable behavioral change, decision-making, or intervention without clinical gatekeeping.
- Close the loop between data generation and improved outcomes in daily life.

Why This Gap Exists

1. **Incentive Misalignment**
   - Most healthcare systems and startups are paid by institutions, not individuals, so startups optimize for enterprise use (e.g., hospitals, insurers).
   - Consumers often lack the willingness or literacy to pay for health tools they don't understand or trust.
2. **Data-Action Translation is Hard**
   - It's relatively easy to collect data (wearables, apps) and run models (via APIs or pre-trained LLMs). The hard part is what to do next: nudging behavior, adapting interventions, surfacing context-aware insights in a way that is timely, trustworthy, and non-overwhelming
3. **Liability and Regulation**
   - Delivering advice or care to consumers requires navigating clinical safety, liability, and compliance (e.g., FDA, CE mark).
   - Many teams shy away from this final mile because it exposes them to medical device regulation or malpractice concerns.
4. **Cognitive Overload**
   - Consumers are already overloaded with information. Most apps just push more data, but what users need is less noise and more clarity.

Points for consideration for future investments

- **Without clinical-grade predictive modelling and risk profiling, engagement will always be a challenge, especially for consumer-oriented platforms**
  - The lack of effective follow-through limits the effectiveness at delivering care and consequently places them in highly competitive markets.
    - Biomarker-based risk factor assessments do not provide a strong follow through as they do not necessarily add to the decision making process of the clinician. Therefore, while downstream services may complete the value chain, they do not necessarily benefit from the added components and complexity.
  - Consumers are data generators but aren't equipped to act on it meaningfully (e.g., lack of understandable insights or tools for intervention).
    - Automating triage on an individual level, if possible, will provide a major opportunity for preventive care.

- **Data is plentiful - new entrants should not look at acquiring more data but rather making use of it.**
  - There already exist many POC tests, wearable devices, self-assessment tools, etc. for consumers. New entrants will need strong distribution channels and significant resources to enter the market for marginal gain.
    - Exceptions are to be made for medical devices which require their own data acquisition methods to provide high-level predictive modelling.
  - Gaps still remain in data consolidation and quality monitoring, with data streams remaining fragmented. Consolidating data streams for given individuals, done at scale, to provide comprehensive health profiles for EMRs is still not done often.
    - In particular, intermediaries or platforms must not only aggregate data, but stay responsible for its full journey from data to action to feedback. To move beyond aggregation, intermediaries need to:
      - Build features that help users act on insights (e.g., recommend pathways, automate referrals)
      - Provide closed-loop workflows for clinicians or patients (e.g., flag → triage → action → follow-up)
      - Become active participants in patient journeys, not just passive data hosts

Appendix: preventive healthcare market map

	Data availability *Acquiring relevant data*	Data continuity *Consolidating and validating data*	Risk modelling *Clinical-grade assessment of risk profiles*	Actionability and engagement *Directly advising treatment decisions or downstream engagement*
Business-facing	Respiree, mirxes, ASA RÉN, SEKISUI, veredus, US2.AI, breathonix, GENE SOLUTIONS, PathGen Diagnostik Teknologi, AGTC GENOMICS, sunbirdbio, NUSANTICS, COVE, LUCENCE	mesh bio, AMILI, MOBIO INTERACTIVE, synapxe, MedCheck, Aptar digital health, QRITIVE, holmusk, ORION HEALTH, mirxes, ASA RÉN, ONCOSHOT	mirxes, ADVANX HEALTH, annalise.ai, Powered by Harrison.ai, See-Mode, VIDANEX, NUSANTICS, PathGen Diagnostik Teknologi, US2.AI, qmed.asia, Respiree	mednefits, ATTUNE, HealthCatalyst, DOCTORONCALL, ALODOKTER, DA hd, halodoc, KLINIK PINTAR, qmed.asia, SPEEDOC, hellohealth, COVE, docdoc, Maria Health, HealthMetrics, naluri, rey, SMARTER HEALTH, thoughtfull, intellect, botmd, HEALTHBEATS, MOBIO INTERACTIVE
Consumer-facing	GARMIN, Healthify, fitbit, AIA+ MY, Welling, Kroni Kare, PERKESO, intlife, aevice health, ASA RÉN, supagene, DEXAFIT Asia, qmed.asia, Air4Thai, BIORITHM, NalaGenetics, ADVANX HEALTH, breathonix, Prenetics Health. Reimagined., BEYOND HEALTH	hellohealth, rey, NalaGenetics, AIA+ MY, ASA RÉN, synapxe, PERKESO, MyDocLab™, DEXAFIT Asia, Health 2 Sync	aevice health	Prenetics Health. Reimagined., hd, Healthify, JOMRUN, FitHappy, DEXAFIT Asia, AIA+ MY, DIGI IDEAS, Welling, ADVANX HEALTH, plus vibes, NEUROWYZR, ooca, zennya HEALTH, DIID, AMILI, supagene, FIT HUB, MiCARE, ALODOKTER, halodoc, NalaGenetics, DOCTORONCALL, qmed.asia, DA, ORA, MINDFI, BookDoc, SPEEDOC, hellohealth, riliv, Sirka

Private and public primary care bring different strengths to the table

Preventive

Lower risks across population
Reduce likelihood of illness across population via general behavior modification or environmental control

Prediction and early intervention
Identify potential health risks or early signs before symptoms

Reduce harm in care
Preventing adverse outcomes due to improper or delayed self-care

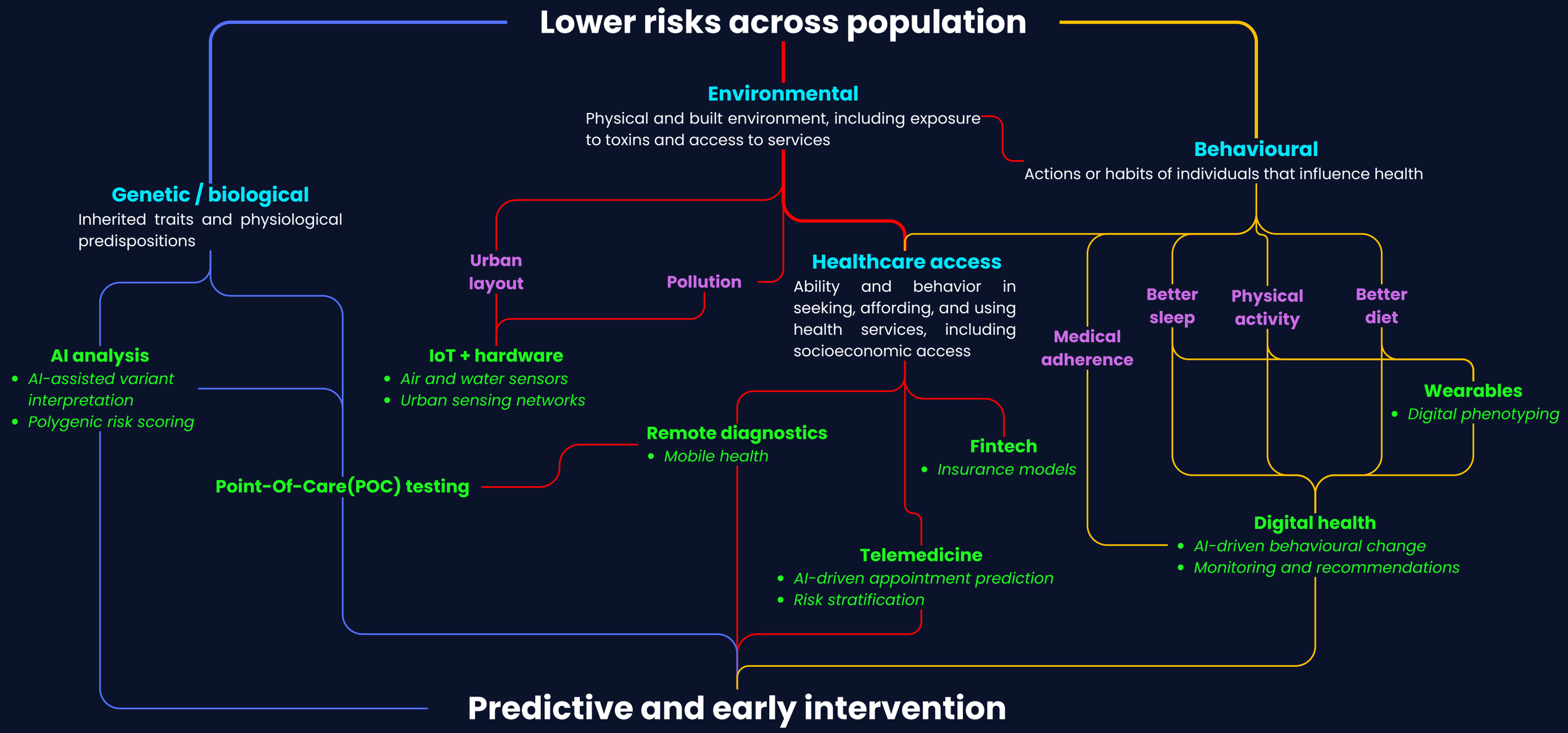
Diagnosis and stratification
Accurately identify conditions and determine severity or subtype, supporting decision making in choosing the best course of action.

Intervention and treatment
Deliver targeted therapeutic actions, deciding how to execute treatment effectively

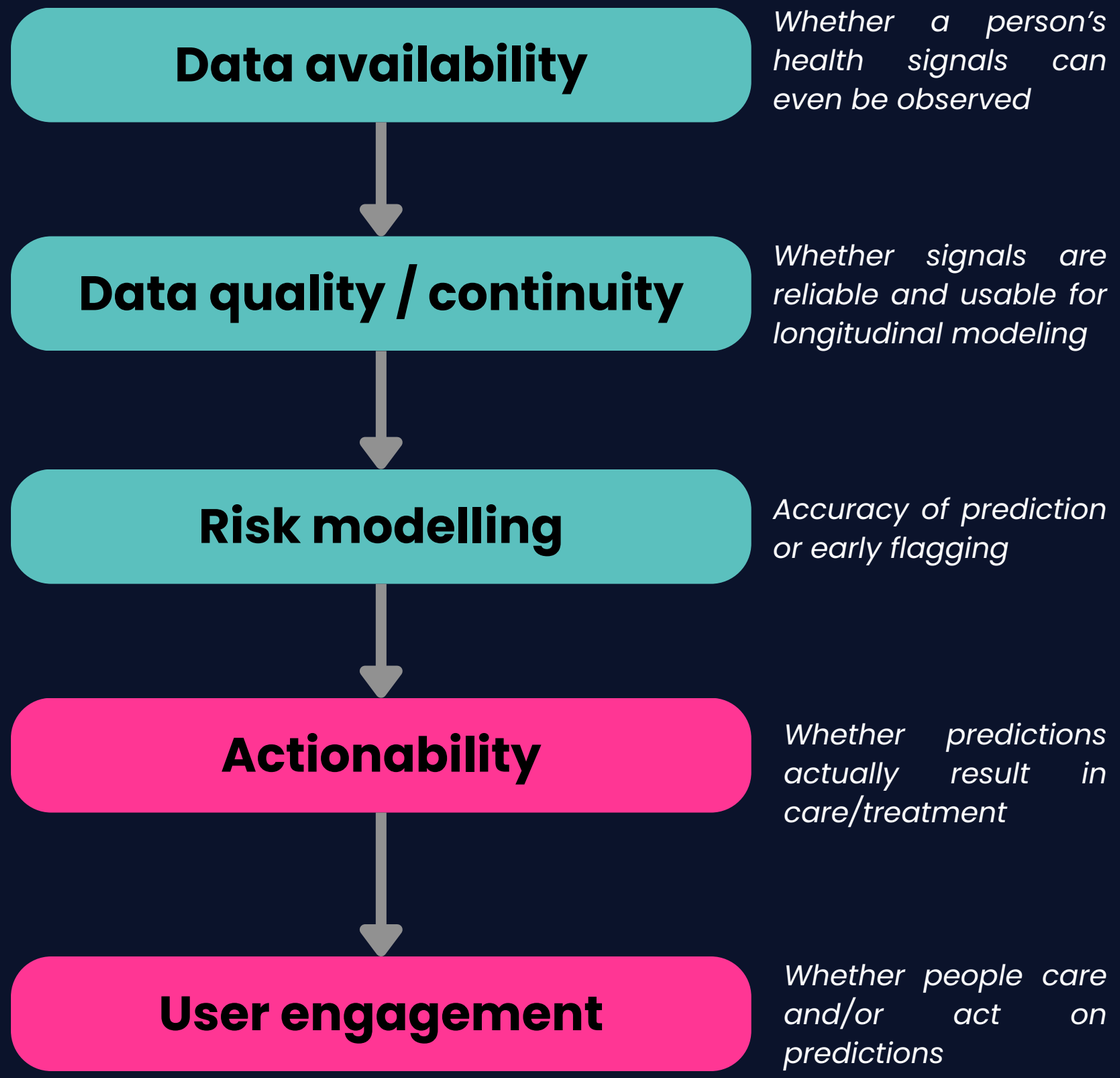
Recovery and recurrence prevention
Ensuring patient heals correctly and prevents relapse or worsening over time.

Curative

Technology landscape: population disease risk mitigation



Drivers for predictive and early intervention



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Drivers for predictive and early intervention

	Data availability *Acquiring relevant data*	**Data continuity** *Consolidating and validating data*	**Risk modelling** *Assessing risk profiles*	**Actionability** *Directly advising treatment decisions*	**User engagement** *Encouraging user adoption of care*
Genetic and biological	ASARÉN AI, SEKISUI, veredus, PathGen, ADVANX HEALTH, AMILI, mirxes, ASTC GENOMICS, NUSANTICS, breathonix, BEYOND HEALTH, NalaGenetics, supagene	mirxes, Aptar digital health, ONCOSHOT, QRITIVE, HealthCatalyst, annalise.ai Powered by Harrison.ai	mirxes, NalaGenetics, See-Mode, VIDANEX, annalise.ai Powered by Harrison.ai	NalaGenetics, KLINIK PINTAR, NUSANTICS, ADVANX HEALTH	
Behavioural and lifestyle	AIA+ MY, Welling, US2.AI, Kroni Kare, PERKESO, aevice health, Healthify, fitbit, GARMIN, Respiree, COVE KaHa Pte Ltd, HEALTHBEATS	AIA+ MY, Aptar digital health, HealthCatalyst, US2.AI, holmusk, mesh bio, MedCheck, MyDocLab, Health 2 Sync, PERKESO	aevice health, Respiree, mesh bio	AIA+ MY, thoughtfull, MyDocLab, naluri, KLINIK PINTAR, ooca, NEUROWYZR	AIA+ MY, DIET IDEAS, JOMRUN, FitHappy, Sirka, DIB, FIT HUB, ORA, Welling, COVE KaHa Pte Ltd, MINDFI, riliv, plus vibes, NEUROWYZR, Healthify
Environment	SAMSUNG, VOCSens Smart sensing solutions, dyson, Air4Thai, nafas, ACSON International, AiruFlo, intlife, uHoo, SIRIM	SIRIM	dyson, ACSON International	nafas	
Healthcare access		ATTUNE Innovation Infinite An ABI Health Company, hellohealth, HealthMetrics, SMARTER HEALTH, Maria Health, docdoc, mednefits	HealthMetrics, rey, Maria Health, SMARTER HEALTH, MiCARE	doc DOCTORONCALL, halodoc, DA, qmed.asia, SPEEDOC, BookDoc, medici, ALODOKTER, hellohealth, hd, KLINIK PINTAR, zennya HEALTH, docdoc	HealthMetrics, rey, Maria Health, SMARTER HEALTH

Drivers for predictive and early intervention

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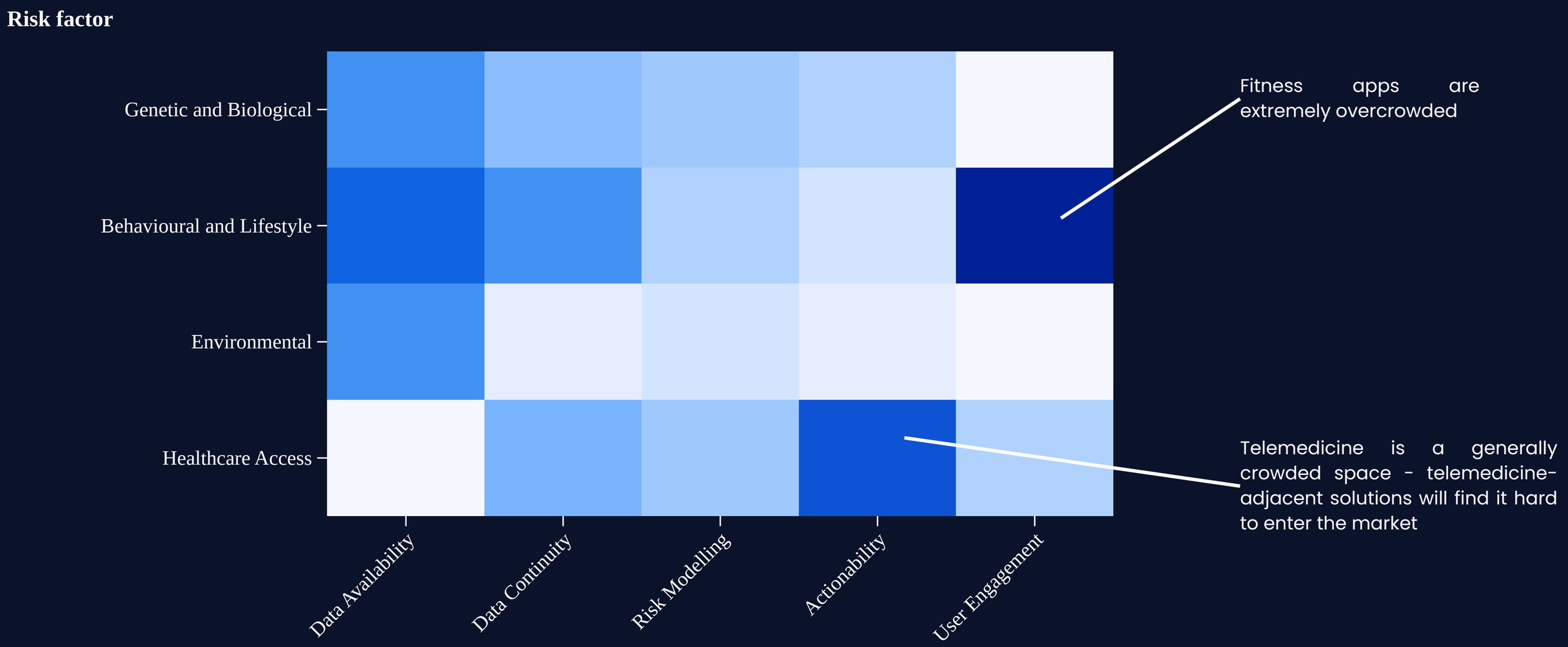
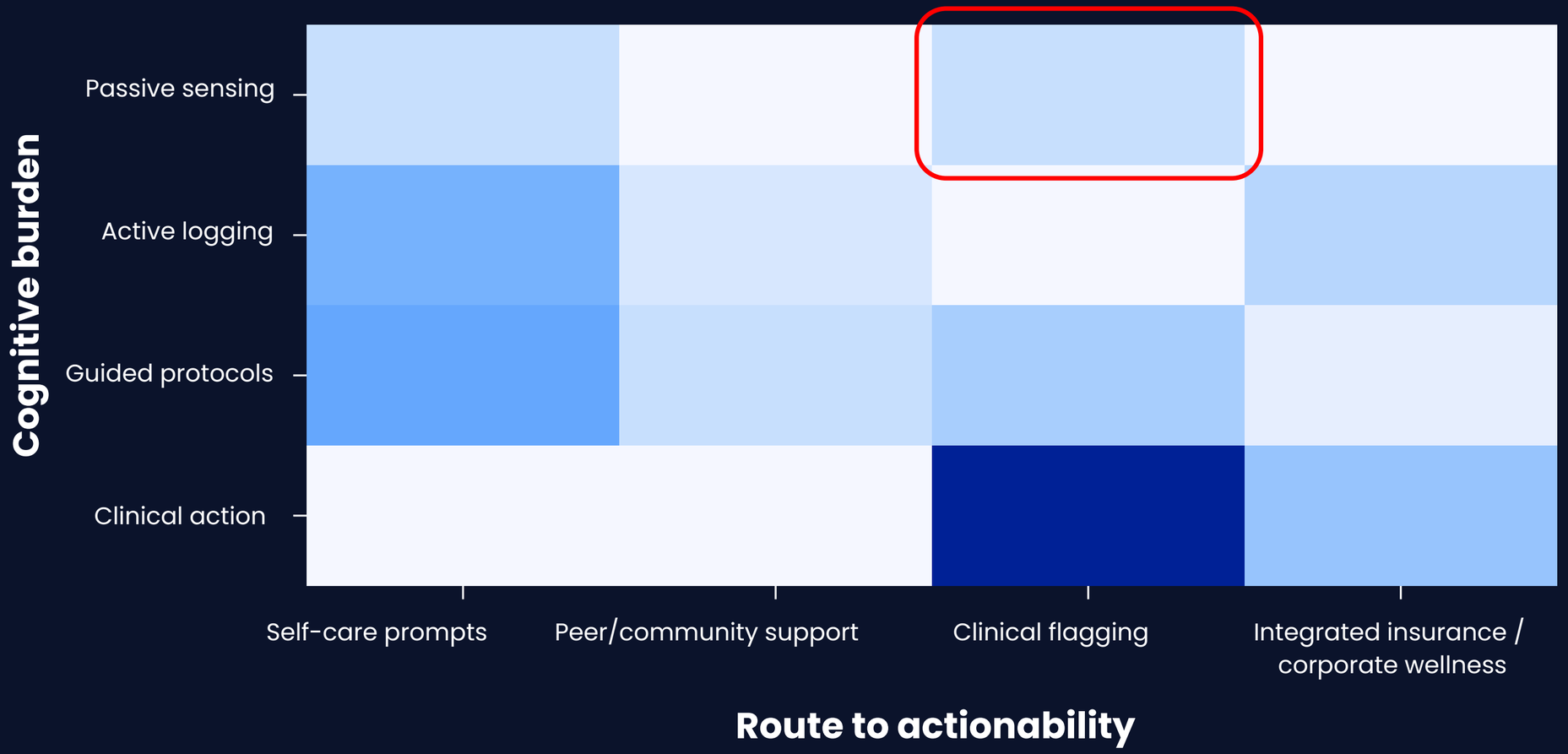
Genetic and biological	Large amount of D2C testing for genetic sequencing, but without major downstream treatment: field of pharmacogenomics still immature. Very few in-house POC tests found, largely reliant on PCR testing.	Surprisingly few providing comprehensive view of genetic/biological + behavioural/lifestyle for treatment.	Some AI screening more relevant here. Good to have but limited use without actionability, which almost none handle.	Very few players and largely offered by connected doctor networks.	Generally left to clinicians, noneed known that actively engage with patients
Behavioural and lifestyle			Risk assessments typically packaged lightly with data collected and do not factor into clinical treatments. The only ones seriously identifying risk factors typically provide downstream services too.	Relatively few players, largely relying on connecting patients to healthcare professionals rather than directly providing advice. Difficult to obtain regulatory clearance.	Dominated by consumer B2C apps - fragmented market. Few have the regulatory capacity to work upstream.
Environment	Dominated by major players (Samsung, Dyson, etc.) or governmental initiatives providing data.		Mostly constrained to public health and governmental policies.	Limited actionability available - environmental pollution affects the whole community, and little can be done on a personal basis.	
Healthcare access		Comprises insurtech plays and insurance policy marketplaces.	Mainly dominated by insurtech plays who use this for their own services in calculating premiums.	Dominated by telehealth especially post-COVID: relatively low barrier to entry. Limited downstream.	Mostly insurtech, only a few players who are established enough to directly engage with patients.


Risk factor
Genetic and Biological
Behavioural and Lifestyle
Environmental
Healthcare Access
Data Availability
Data Continuity
Risk Modelling
Actionability
User Engagement
Data pipeline
Fitness apps are extremely overcrowded
Telemedicine is a generally crowded space - telemedicine-adjacent solutions will find it hard to enter the market

Cognitive burden vs Route to actionability

	Self-care prompts	Peer/community support	Clinical flagging	Integrated insurance / corporate wellness
Passive sensing *e.g. wearables, sensors*				
Active logging *e.g. journals, food diaries*				
Guided protocols *e.g. guided at-home tests, rehab routines*				
Clinical action *e.g. doctor visit, telehealth consult*				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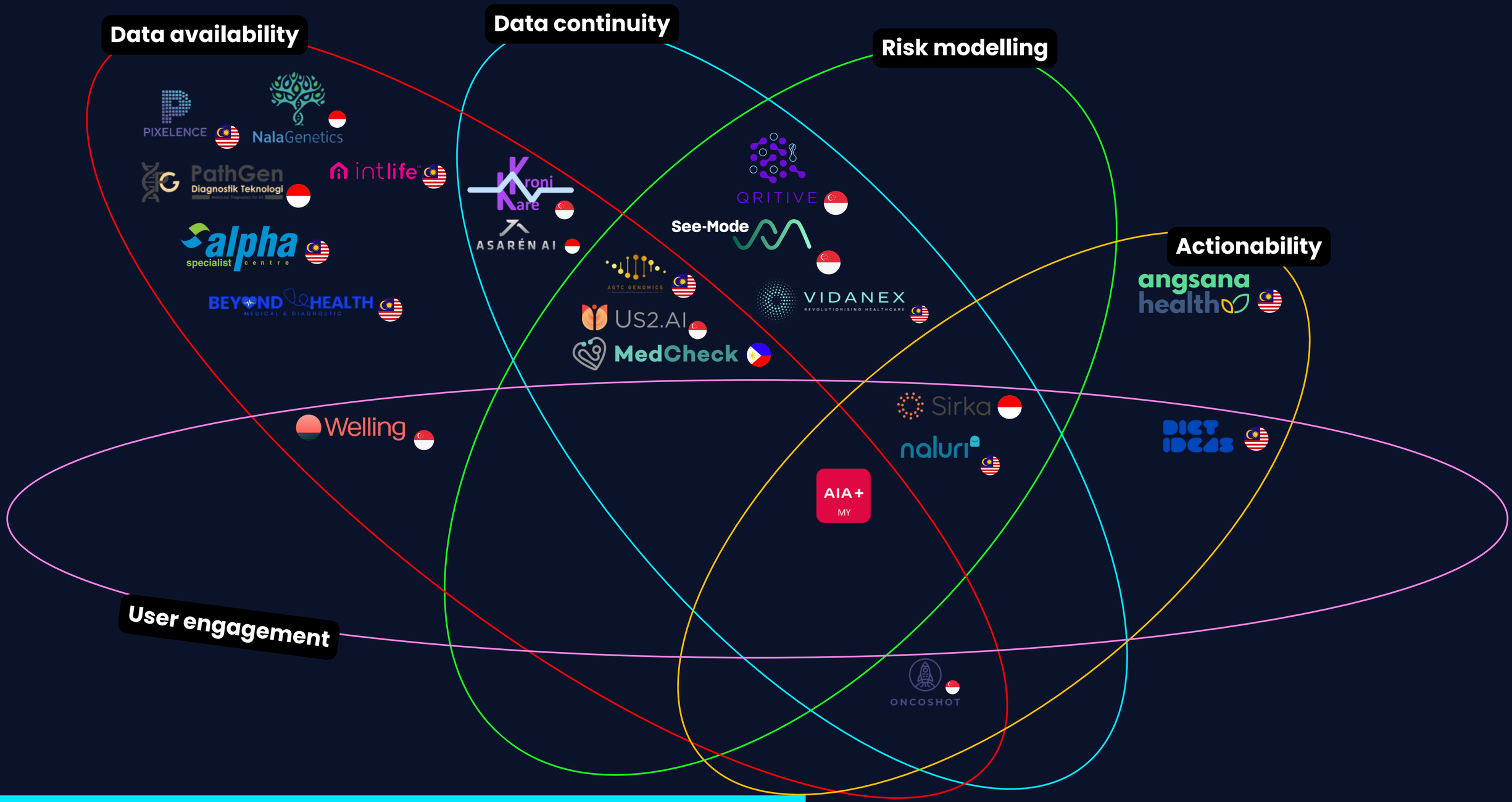
Drivers for predictive and early intervention



Private and public primary care bring different strengths to the table

Public health clinic

Director

Typically a family medicine specialist (FMS)

Medical Officers (MOs)

Resident doctors

Allied Health Professionals

- *Physiotherapists*
- *Dietitians*
- *Occupational therapists*
- *Etc.*

Assistant MOs

Pharmacists

Nurses

Private health clinic

Owner / Medical Director

Often the clinic is owned by an individual who also acts as the primary healthcare provider

General Practitioners

Clinical staff providing patient care, diagnosis, and treatment plans

Allied Health Professionals

- *Physiotherapists*
- *Dietitians*
- *Occupational therapists*
- *Etc.*

Pharmacists

Nurses

~3 in 4

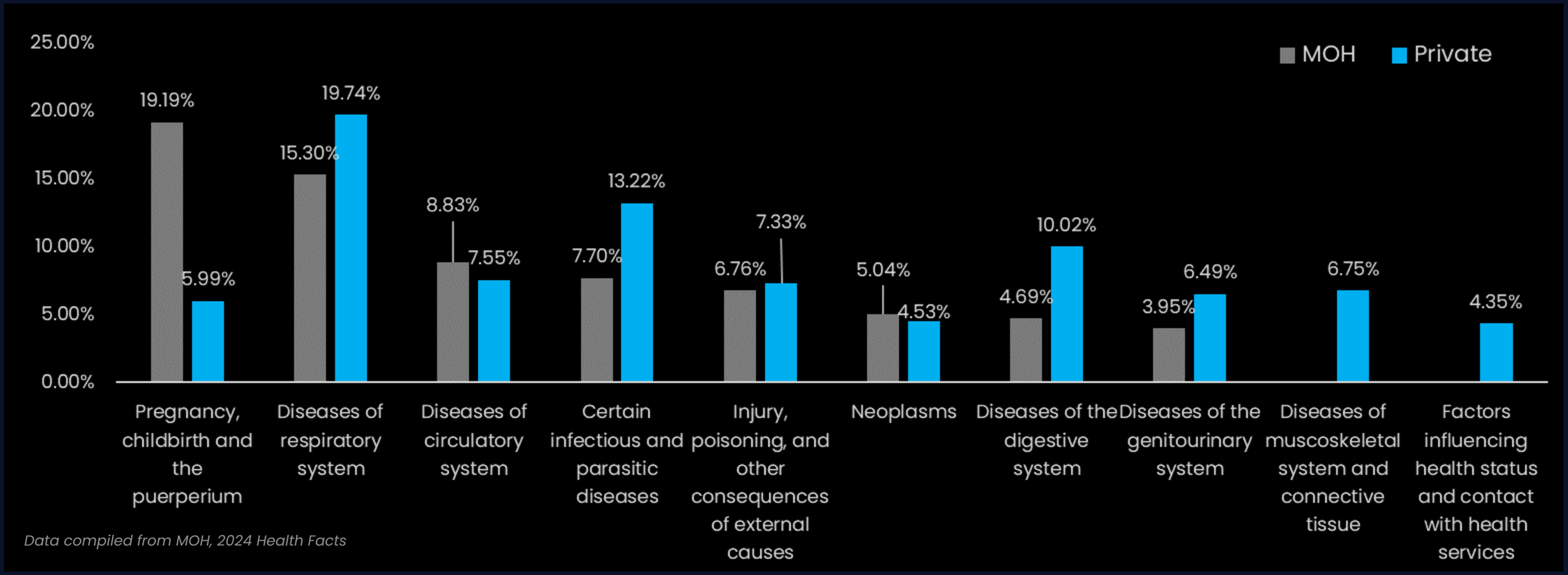
private clinics in Malaysia are operated as solo practices.

The public sector tends to be stronger in care coordination and comprehensiveness, as public practices tend to operate as shared practices with interactions across multiple primary care providers.

However, private clinics can provide better continuity of care through more personalised care, enabled by the smaller practices and different governance.

Sources:
Ong SM, et al. Comparative performance of public and private primary care service delivery in Malaysia: An analysis of findings from QUALICOPC. PLoS One. 2022
Siew P.C., Diabetes Care Model in Malaysia, 2015
Ramli, Anis & Taher, Set al. (2019). The Primary Health Care Performance Initiative (PHCPI): Issues and Challenges for Malaysia as a Trailblazer Country. Journal of Clinical and Health Sciences

Principal causes of hospitalisation in Malaysian hospitals



Data compiled from MOH, 2024 Health Facts