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The Algorithm Gap: Why AI is Failing Asian Women and What Must Change

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As AI becomes increasingly embedded in healthcare, a critical flaw is emerging: the data powering these systems often fails to reflect the biological and cultural realities of Asian women. Bridging this gap will require more than technological innovationâ??it demands inclusive clinical research, representative datasets and investment in the foundations of equitable healthcare.



The year is 2026. Artificial intelligence (AI) has moved from buzzword to backbone in healthcare. Across Asia, hospitals are deploying AI-driven diagnostics, insurers are using predictive algorithms, and governments are integrating machine learning into public health surveillance. Yet, for half the population, these systems are quietly failing.

This is no longer about capturing a "pink dollar." It is about confronting a structural truth: the data infrastructure powering modern healthcare does not reflect the biological reality of Asian women. We are building sophisticated algorithms on a hollow foundation. The question is no longer whether technology can transform women's health—it is whether we are willing to invest in the evidence base that makes it trustworthy.

The Compounding Gap: Three Layers of Structural Failure

The problem is compounding, built in three layers.

Layer One: The Genomic Void. The foundation of precision medicine is genomic data. Yet roughly 86.3 per cent of genomic studies historically focused on European populations, and European ancestry makes up 67–71 per cent of the world's genomic research data versus just 20–29 per cent for Asian populations—despite Asia holding well over half the world's population. A woman in Jakarta or Mumbai is not a minor variation of a woman in London or Boston. Her genetic architecture is distinct, yet the AI tools deployed in her hospital are calibrated to a template that doesn't match her.

Layer Two: The Sex Gap Inside the Thin Slice. If genomic data is thin for Asians, it is thinner still for Asian women. South Asian women make up only 12 per cent of participants in Asian cardiovascular trials, East Asian women just 9 per cent. Of 1,200 autoimmune-therapy trials run across the region between 2015 and 2025, only 6 per cent included Asian women in meaningful numbers. About 44 per cent of AI systems studied show measurable gender bias—and only 2 of 14 Asian countries with national AI strategies address gender at all.

Layer Three: Who is Building the Tools. This is about power, not just data. In South Asia, women hold only 26 per cent of corresponding-authorship positions on AI research, the roles signaling who actually leads the work. Only about 10 per cent of Indian AI startups have a woman founder; under 1 per cent of India's angel investors are women. The people least represented in the training data are least represented in the rooms deciding what gets funded.

The Growth Story vs. Data Reality

Asia is being marketed as the fastest-growing women's health AI market in the world: $889 million in 2025, heading toward $5.7 billion by 2034, with AI/ML the fastest-growing technology segment inside it. Yet this growth is built on a foundation that barely knows Asian women's bodies exist. We are pouring billions into diagnostics while the underlying data remains overwhelmingly Western and male. The market is scaling faster than the evidence base.

The Data Gap in Practice

The theoretical gap becomes clinical harm in real deployments. Ping An Health, China's largest online healthcare platform, published an internal audit in 2025 showing its AI triage system for cardiovascular symptoms had a 14 per cent higher error rate for women than men, because 78 per cent of the cardiac training data came from male patients. For Chinese women, whose heart attacks often present as fatigue and back pain rather than classic chest pain, the AI was effectively blind.

New Money, Old Blind Spots

The investment landscape has shifted since 2024. Seven dedicated women's health venture funds now operate in Asia, up from two in 2022, including Avesta Capital's Women's Health Fund (Singapore, $120 million) and Saha Fund (India, $80 million). Their collective dry powder, roughly $500 million, is a drop in the ocean next to the $40 billion invested in Asian digital health overall in 2025. Only 8 per cent of Asian VC partners are women, and female-led health-tech startups receive 22 per cent less capital per round than male-led counterparts, controlling for traction. Worse: none of these new funds invest in the foundational data infrastructure AI requires. Capital is flowing to the surface, not the foundation.

Beyond Fertility: The Untapped Clinical Frontier

The narrative around women's health in Asia has been disproportionately focused on fertility and maternal care. The real opportunity lies in the chronic, systemic conditions research and investment have ignored.

Autoimmune disease is one. By 2030, Asia will have the highest absolute number of women living with autoimmune disease globally, yet diagnostic pathways remain Western-based. ImmunitoAI, a Bengaluru startup, uses AI to map how conditions like lupus present in South Asian populations, building a proprietary dataset, and has raised $15 million in Series A.

Cardiovascular disease is another, echoing Ping An above: women are 50 per cent more likely than men to be misdiagnosed during a heart attack. Singapore's Aerobyx Health tackles this with machine learning on retinal scans, trained on over 200,000 Southeast Asian women across Malay, Chinese, Indian, and Filipino populations, and has since earned FDA breakthrough device designation.

Mental health carries the sharpest cultural dimension. Wysa, an AI chatbot built in India, struggled expanding into South Korea and Japan because its models couldn't read the indirect, high-context communication styles common there, leaving women seeking support through digital channels, often because of stigma, with generic, insensitive responses; it had to retrain entirely on local data. Singapore's MindFi took the opposite approach from the start, building its triage system on over 3 million Asian users trained to recognise culturally specific patterns of distress. The lesson across all three: build Asian data sovereignty, don't wait for Western datasets to diversify.

A Personal Call to Action

The path forward requires a fundamental shift in how we think about women's health in Asia. It is not a niche market, it is the foundation of a functioning society.

For policymakers: stop treating women's health as a narrow vertical, maternal and reproductive care, and start treating it as horizontal infrastructure. Integrate services designed for women into universal coverage, so schemes like India's Ayushman Bharat or Indonesia's BPJS reimburse digital therapeutics and preventive screening. Mandate sex-disaggregated, ethnicity-specific data in publicly funded research, and write gender equity into national AI strategies—something only 2 of 14 Asian countries currently do.

For investors: the next unicorn in Asian health-tech won't be a copy-paste of a Western model, it will own proprietary, Asian-specific datasets no one else can replicate. The defensibility lies in data, not code.

For industry leaders: move beyond "pink-washing" and invest in the clinical research that addresses Asian women's real disease burden, autoimmune disorders, cardiovascular disease, mental health, and menopause.

The tools exist. The market exists. The disease burden exists. The gap is not in technology, it is in data, in representation, in power. We need infrastructure, representation, and investment that goes beyond the surface. The women of Asia are not a market to be captured. They are the reason we do this work. And they are waiting.

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