سدرة للطب
Sidra Medicine

Sidra Medicine

Transforming Lives Through Precision and Compassion



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Dr. Iyabo Tinubu-Karch, CEO at Sidra Medicine, on transforming lives



At Sidra Medicine, our vision is simple yet powerful: transforming lives through personalized medicine and empathy. In 2024, this vision informed every milestone – from pioneering clinical-grade genome sequencing for critically ill children to integrating AI into pediatric therapies, and delivering breakthrough maternal imaging that redefines safety in childbirth.

Yet our ambition goes beyond excellence in technology or research. At Sidra Medicine, we believe the future of health care lies in deeply understanding each patient's unique story and needs – and combining this insight with data, innovation and, human connection. In other words, we are reframing the narrative: not just as a precision medicine center, but as a personalized medicine institution – where empathy meets evidence, and where care is not only targeted but transformative.

This year's annual report outlines how that philosophy is shaping every part of our organization. Whether through early interventions in neurodevelopmental disorders that change the trajectory of young lives, or artificial intelligence (AI)-enhanced physiotherapy that offers new hope to families, our approach is integrated, multidisciplinary, and person-centered.

Crucially, our mission is aligned with the goals of Qatar National Vision (QNV) 2030 and the ambitions of Qatar Foundation. From supporting economic diversification through biotech and clinical research, to reducing long-term social costs via early intervention, Sidra Medicine is a catalyst for national progress.

Our commitment to advancing human capital is evident in our training of the next generation of Qatari clinicians and researchers, while our international collaborations, digital health architecture, and environmental initiatives reflect a broader alignment with innovation, sustainability, and global goals.

We believe that precision medicine is the tool – but personalized, empathetic care is the outcome. As this report highlights, we are proud to be part of a wider developmental agenda: one that sees science not just as a technical pursuit, but as a path to social impact.

With sustained collaboration and investment, Sidra Medicine is ready to help shape a healthier, more compassionate future for Qatar and the region.

Executive Summary

Anchoring Qatar's health care transformation, Sidra Medicine merges precision science with deeply personalized, empathetic care. In 2024 we advanced our mission through 259 peer-reviewed research studies, 46 pediatric subspecialties, and 1,391 births – over 25% classified as high-risk. Our institution is a national driver of personalized medicine, responsible for administering Qatar's first gene therapy treatments and sequencing more than 15,000 whole genomes. These achievements, grounded in QNV 2030's human and social development goals, highlight our role in shaping the future of health care in Qatar.

Highlights: Precision, People, and Impact

Sidra Medicine recorded significant gains across three key underpinning pillars

Care & clinical excellence

Births facilitated
1,391 births
25% classified as high-risk

Pediatric specialties
46 subspecialties offered
Personalized and complex care capacity

International patient reach
435 patients from 23 countries
QR139m in international revenue

Research, people & sustainability

Research output
259 peer-reviewed research studies
Driving regional health innovation

Global workforce
>3,200 staff | 100+ nationalities
High female leadership and Qatari inclusion

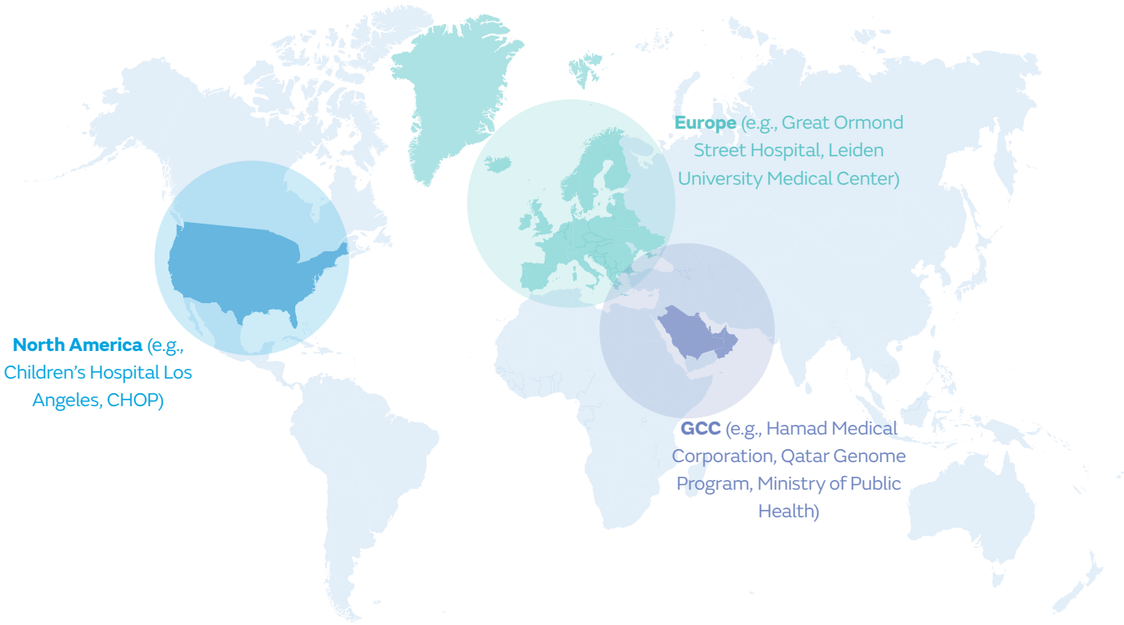
Environmental progress
↓15% energy | ↓18% water use
Operational alignment with QNV 2030

Organizational Profile and Mission

As a Qatar Foundation entity, Sidra Medicine is a leading academic medical center dedicated to the specialized care of women and children. Our mission – to transform lives through precision and empathy – is delivered through high-impact clinical care, rigorous scientific inquiry, and workforce localization, in full alignment with QNV 2030.

A global institution driving precision and innovation

Delivering scale, trust, and global reach at the frontiers of specialized care



Diverse & inclusive workforce

3,200 staff

100+ nationalities

50% female leadership

Research infrastructure & output

12+ advanced labs (stem cell, genomics, AI)

259 peer-reviewed publications in 2024

QR22m in external grant funding

Global reach & collaboration

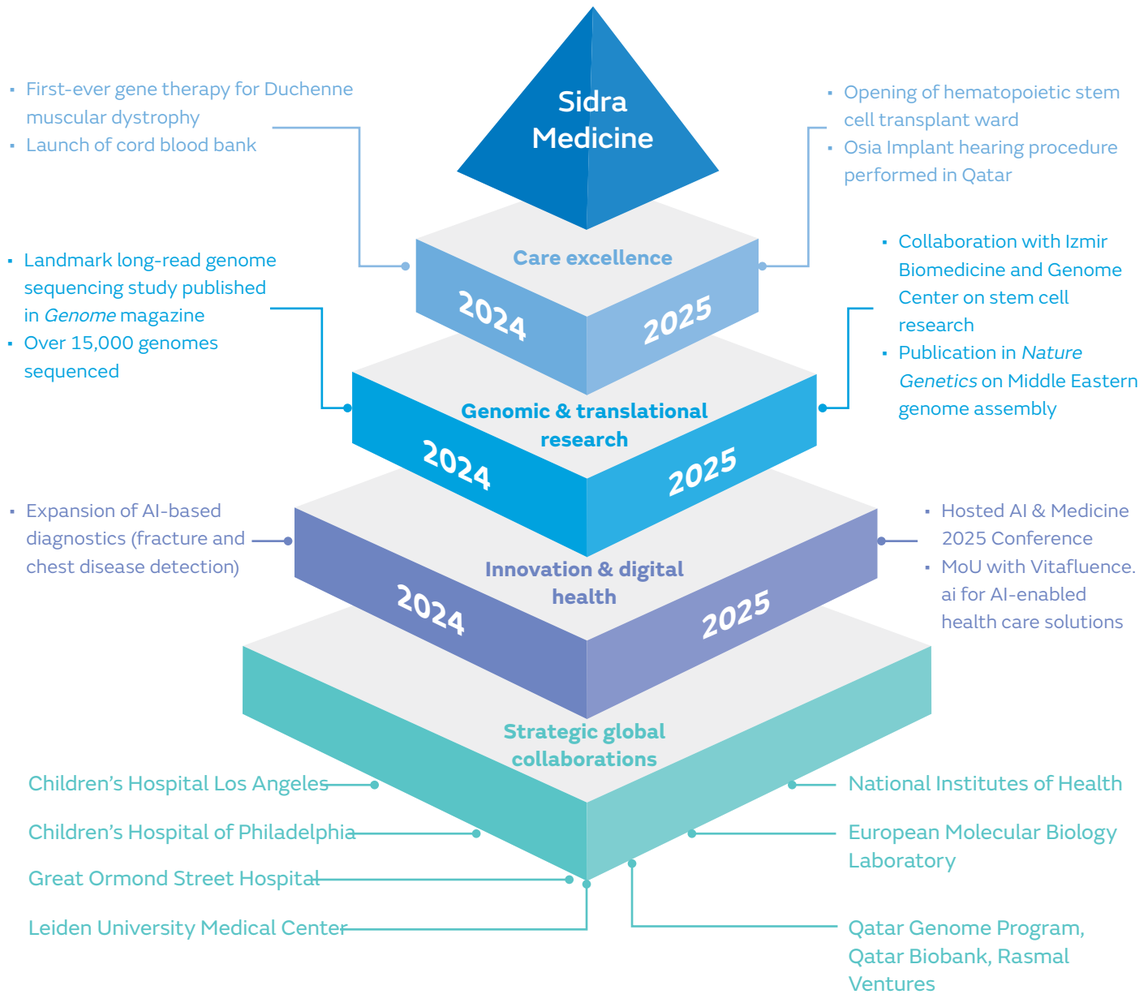
Strategic partnerships across **three** continents

Multilateral research programs in pediatric care, genomics, and AI

Sidra Medicine at a Glance

In 2024 Sidra Medicine published 97 peer-reviewed research studies, 58% in journals with an impact factor above 4.5. We performed over 2,200 pediatric surgeries and managed 1,391 births, including a significant proportion of high-risk cases. We treated 435 international patients, generating QR139m in revenue. Informed by QNV 2030's human development and innovation goals, these milestones reinforce our position in advancing regional health care. Advances in genomics enabled rapid whole genome sequencing and the introduction of pioneering gene therapies, alongside the launch of Qatar's first hematopoietic stem cell transplant ward.

Global milestones and strategic partnerships (2024-25)



Board of Governors

Our Board of Governors (BOG) brings together leaders in health care, business, policy, and academia, reflecting a strong commitment to clinical, scientific, and educational excellence in Qatar and beyond:



H.H. Sheikha Moza bint Nasser

Chairperson, BOG;
Founder of Qatar Foundation and global advocate for education and health



Prof. the Lord Darzi of Denham

Vice Chair, BOG;
Renowned surgeon and health policy expert;
leads Sidra Medicine's Executive Committee



Mr. Mohammed Khalid Al Mana

Member, BOG;
Managing Director of Sidra Medicine;
oversees operational leadership



H.E. Dr. Hanan Mohammed Al Kuwari

Member, BOG;
Public Health Affairs Advisor to the PM of Qatar;
key figure in national health care strategy



Dr. Swati Piramal

Member, BOG;
Vice Chairperson of Piramal Group;
advocate for innovation in public health



Dr. Yusuke Nakamura

Member, BOG;
Genomic medicine pioneer; Professor at the University of Chicago



Mr. Yousuf Al Jaida

Member; BOG;
CEO of Qatar Financial Center;
expert in economic development



Dr. Prem Kumar Nair

Member, BOG;
Health care executive with extensive hospital management experience



Dr. Stephen F. Kingsmore

Member, BOG;
President of Rady Children's Institute for Genomic Medicine



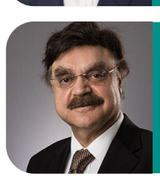
Prof. Stanislas Lyonnet

Member, BOG;
Director of Institut Imagine, France;
specialist in genetic disorders



Dr. Iyabo Tinubu-Karch

Ex-Officio Member, BOG;
CEO of Sidra Medicine;
leads clinical and operational strategy

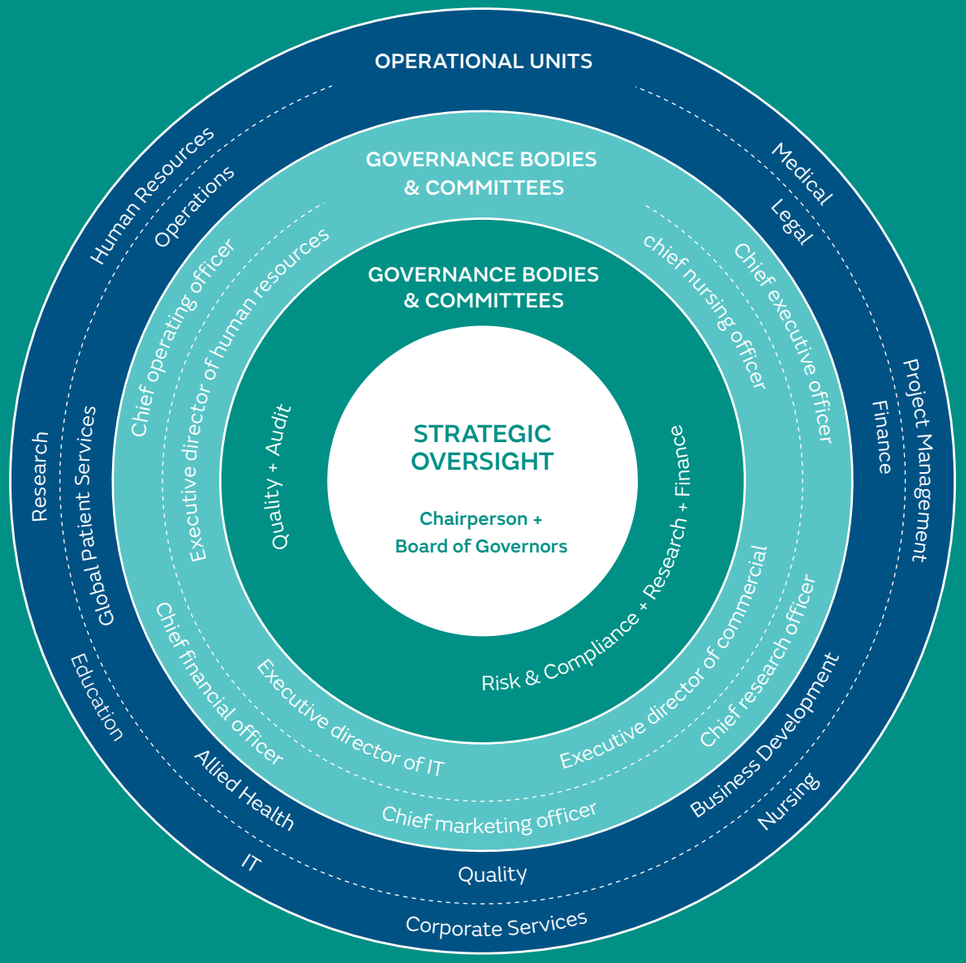


Dr. Javaid I. Sheikh

Ex-Officio Member, BOG;
Dean of Weill Cornell Medicine-Qatar;
champion of academic medicine

Governance & Oversight

Sidra Medicine's governance framework is designed to balance inclusivity, accountability, and strategic alignment. Oversight is exercised through multidisciplinary committees that bring together executive, medical, nursing, and community representation, ensuring diverse perspectives guide decision-making. Embedded mechanisms monitor compliance with national health priorities, regulatory standards, and risk management practices. By combining transparency, ethical integrity, and responsive leadership, we are reinforcing our standing as a trusted academic learning health system aligned with QNV 2030.



Strategic Priorities 2030

Strategic Priorities for 2030

Sidra Medicine's 2030 priorities drive innovation and sustainability while staying rooted in empathetic, patient-first care – enabled through governance-led strategic oversight

2025 — 2030

PRECISION MEDICINE & GENOMIC RESEARCH

Clinical-grade whole genome sequencing (WGS) launched for critically ill pediatric patients

Five clinical-research programs focused on genetic disorders, neurology, fertility, oncology, and immune dysregulation

AI-integrated diagnostics for imaging and biomarker analysis (target: **70%** imaging AI-enabled by 2027)

CLINICAL TRIALS & ADVANCED THERAPIES

Qatar's **first gene therapy** with Elevidys for Duchenne Muscular Dystrophy (DMD)

Clinical Trials Program tailored to Arab population; active pharma collaborations

Cord Blood Bank launched to support **future stem cell therapies**

QR22m in external grants secured (2023-24)

WOMEN'S & PEDIATRIC CARE

39 pediatric subspecialties and holistic maternal/reproductive care

First high-risk cesarean section in angiography suite in the region

Medical tourism strategy targeting GCC/MENA region; 1,000+ international patients

Zero preventable sepsis deaths in 2024 from IV antibiotic safety program

Core Agenda: Sidra Medicine's institutional agenda for 2030 centers on three interlinked priorities: advancing precision medicine and genomic research, expanding clinical trials and advanced therapies, and enhancing women's and pediatric care. These objectives embody a long-term commitment to patient-centric care and innovation, in line with the Human Development and Knowledge Economy pillars of QNV 2030.

Delivery: Under precision medicine, we have embedded clinical-grade WGS into care pathways for critically ill children and launched Qatar's first Good Manufacturing Practice laboratory for cell therapy. Five clinical-research programs are now operational, focusing on inherited disorders, neurology, fertility, oncology, and immune dysregulation. This underpins genomic biomarker discovery and facilitates treatment personalization.

In clinical trials and advanced therapies, Sidra Medicine established a platform targeting historically underrepresented populations in the Arab world. The hospital became the first in Qatar to administer Elevidys, a gene therapy for DMD, and launched the country's only national cord blood bank to support future regenerative treatments. These efforts are attracting global pharmaceutical partners and supporting Qatar's aspirations in biomedical innovation.

Enhancements to women's and pediatric services have included the introduction of 39 pediatric subspecialties, a region-first high-risk cesarean section performed in an angiography suite, and the development of integrated reproductive and preventive care services. Implementation is tracked through the Internal Research Council and the Project Management Office, ensuring cross-functional governance.

Impact: Sidra Medicine's measurable research outputs in 2024 included 259 publications, with 58% in the top 15% of global journals and an average impact factor of 8.7. More than QR22m in external research grants was secured. These indicators confirm that governance-led strategic execution is effectively translating national vision into transformative, evidence-based healthcare.

Role within Qatar Foundation & QNV 2030

Integration: Sidra Medicine operates as a flagship institution within Qatar Foundation's ecosystem for health, education, and research. Our position is central to realizing QNV 2030, aligned with key national priorities including human capital development, health care innovation, and social equity. As a national academic learning health system, the dual focus on clinical excellence and translational science anchors our role in shaping Qatar's future-ready health care landscape.

Alignment: Integration with Qatar Foundation is operationalized through academic, clinical, and research partnerships. These include joint faculty appointments with Weill Cornell Medicine-Qatar, a landmark national study on inherited metabolic disorders with the Qatar Precision Health Institute and collaboration with international centers such as Children's Hospital Los Angeles. In 2024 Sidra Medicine mentored 69 post-graduate students, hosted 12 visiting scientists, and filed two patent applications, enhancing capacity in health science and innovation.

Contribution: Policy alignment extends to participation in the Qatar Research, Development and Innovation Council's open innovation platform and health equity initiatives. Arab-focused clinical trials and the International Patient Program – serving over 1,000 patients globally – enhances Qatar's role as a health care leader.

Our contributions to sustainability, cost efficiency, and access directly address the societal pillars of QNV 2030. In fusing oversight and impact, Sidra Medicine's governance model features empathy, precision, and national alignment. Through partnerships, platforms, and strategic programs, we deliver advanced care and enable a resilient and knowledge-driven health system.

Sidra–Qatar Foundation–QNV 2030 Alignment

Sidra Medicine operates at the intersection of Qatar Foundation's innovation mandate and QNV 2030's development agenda – converting institutional strategy into national impact.

TIER 1 QF'S STRATEGY
Advancing Qatar's innovation and human capital

- Health, education, and research as national drivers
- Cross-sector innovation through science and technology
- Long-term nation-building through institutional excellence

TIER 2 SIDRA MEDICINE'S MISSION
Transforming lives through personalized care and empathy

Strategic Functions

- Equity in access and regional outreach
- Talent development and STEM education
- Women's and pediatric health leadership
- Precision and genomic medicine
- Translational research and clinical trials

TIER 3 QNV 2030 PILLARS
National Impact: Supporting QNV 2030

- Human development
- Social development
- Economic diversification
- Institutional excellence
- Knowledge economy

Sidra Medicine within Broader Health Care Trends

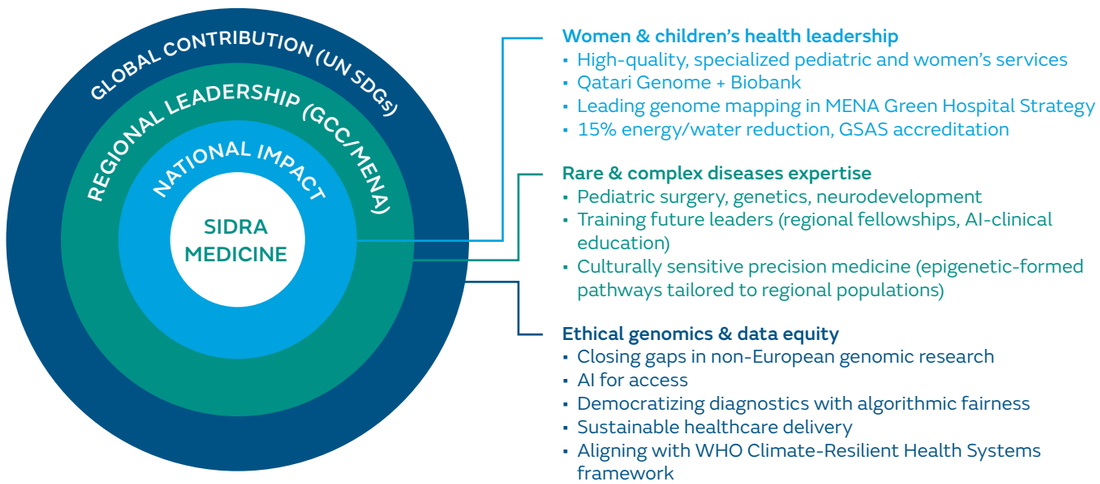
Global health care is undergoing transformation, driven by scientific breakthroughs and shifting patient expectations. Health disparities, the growing burden of chronic diseases, and the urgent need for sustainable health systems demand a new way of thinking: one that harmonizes innovation with equitable access and human-centered care. At Sidra Medicine, our 2030 strategy positions us not just as a regional leader but as a global contributor to this transformation, aligning with QNV 2030 while addressing universal challenges in line with the UN's Sustainable Development Goals (SDGs).

Global Challenges, Precise Solutions: Non-communicable diseases (NCDs) account for 74% of deaths worldwide, with low- and middle-income countries facing the steepest rise. At the same time, only 3% of genomic data comes from non-European populations, leaving critical gaps in precision medicine's reach. Sidra Medicine is tackling these disparities by sequencing over 15,000 whole genomes with a focus on Middle Eastern populations. We are thereby advancing early detection of women's cancers and pediatric rare diseases, and integrating AI-driven diagnostics to democratize high-quality care, taking our work well beyond Qatar's borders.

The Empathic Edge in a Digital Age: As AI and automation reshape medicine, Sidra Medicine anchors innovation in empathy and cultural relevance. Our epigenetic-informed care pathways adjust interventions based on neurodevelopmental risks, while multidisciplinary case reviews ensure treatment plans honor both genetic profiles and patient values. By ensuring that technology serves humanity, not the other way around, our vision is a viable blueprint for ethical precision medicine in an era of algorithmic health care.

Sustainability as a Clinical Imperative: With health care contributing to 4.4% of global carbon emissions, Sidra Medicine's net-zero roadmap demonstrates that environmental stewardship is inseparable from clinical excellence. Our green hospital strategy aligns with the World Health Organization's (WHO) Climate-Resilient Health Systems framework, proving that sustainability and cutting-edge care can, and must, coexist.

A Global Ecosystem of Innovation: Sidra Medicine's collaborations with global research networks, investment in AI-clinical training, and commitment to ethical genomics position us, and Qatar more broadly, as a model for next-generation academic medical centers and a way forward in medicine. As the world races towards UN SDG 3 (Health for All), Sidra Medicine strives to bridge the gap between ambition and action; proving that the most advanced medicine is also the most inclusive, sustainable, and profoundly human.



Interview

Prof. Ibrahim Janahi, Chief Medical Officer, Sidra Medicine, on driving clinical excellence through academic integration and precision health



What defines a compelling value proposition for a specialist academic medical center amid evolving health care systems?

JANAHI: The value proposition lies in the integration of education, clinical care and research into a unified academic medical ecosystem. Unlike conventional teaching hospitals, a fully integrated system ensures that medical education and scientific discovery are not separate functions but embedded in everyday clinical practice. This model fosters a dynamic environment where medical trainees gain hands-on experience; research continuously informs patient care; and education spans undergraduate, graduate and continuing professional development. For example, advanced training programs in pediatrics and allied health disciplines can enhance national capacity and position institutions as hubs for talent development. This approach, combined with a precision health strategy that tailors care to individual patient profiles, offers a strong foundation for both serving local populations and attracting international patients.

What global benchmarks best reflect clinical excellence, and how can health care providers in the Gulf adapt them to local needs?

JANAHI: Globally, benchmarks set by leading institutions such as the Children's Hospital of Philadelphia, Boston Children's Hospital, Texas Children's Hospital, SickKids in Toronto and Great Ormond Street Hospital provide strong models for clinical outcomes and patient safety. While these standards offer a valuable framework, adapting them to regional contexts requires a nuanced understanding of local health profiles, particularly in pediatric care. The Gulf faces unique epidemiological patterns, including a higher prevalence of certain genetic conditions shaped by consanguinity and environmental factors. By aligning global best practices with region-specific data, providers can deliver more precise, culturally appropriate care. This reflects the broader shift toward precision health, which recognizes the importance of inherited and environmental determinants in shaping outcomes.

Beyond infrastructure and technology, what underappreciated factors are driving clinical excellence in the Gulf?

JANAHI: A critical yet often overlooked driver of clinical excellence is the emphasis on quality systems within an academic framework. Accreditation that goes beyond hospital operations to encompass academic standards signals a deep commitment to continuous improvement and outcome-based care. The strength of graduate medical education, particularly in pediatrics, plays a key role in raising standards and expanding access to specialist expertise. Institutions that serve as leading producers of pediatric graduates outside North America exemplify how investment in human capital can rival physical infrastructure in delivering long-term health care value. These efforts also contribute to a cycle of clinical advancement, where local expertise reduces reliance on outbound medical travel, fostering regional self-sufficiency.

How can cross-border health care partnerships evolve from transactional to truly transformative collaborations?

JANAHI: Transformative partnerships move beyond short-term patient referrals or technology transfers to focus on sustainable capacity building. They link care delivery with knowledge sharing, joint research and institutional development across borders. Collaborations between academic systems, pharmaceutical partners and industry stakeholders can generate lasting impact by enhancing skills, infrastructure and innovation ecosystems in partner countries. For example, regional collaboration in patient care and education with GCC nations demonstrates how shared priorities can advance both clinical outcomes and workforce development. On a global level, research alliances with renowned children's hospitals in North America and Europe underscore the potential of high-impact collaboration to shape standards, accelerate discovery, and expand access to specialized care.

Performance

Sidra Medicine's performance reflects our pursuit of excellence in patient care, research innovation, and clinical outcomes. Defined by personalization, precision, quality, and impact, this performance supports Qatar's health care transformation goals under QNV 2030. From pioneering regional genomic therapies to scaling rare disease trials and cross-border collaborations, Sidra Medicine continues to elevate standards in specialized pediatric and women's health care across Qatar and the wider Gulf region.

Sidra Medicine – 2024 Performance at a Glance

PATIENT REACH
Expanding Regional Impact

259 peer-reviewed research studies and **97** peer-reviewed publications in 2024

Avg. Impact Factor: **8.7**

Children treated across MENA via rare disease trials

CLINICAL INNOVATION
Genomic Firsts

Launched Qatar's first cord blood bank (30+ year storage)

Whole genome sequencing diagnostics reduced turnaround from months to weeks

SPECIALIZED PROGRAMS
Pioneering Therapies

New bone marrow transplant (BMT) program

Operationalized rare pediatric trials with regulatory backing

BED OCCUPANCY
Efficient Utilization

H1 2024 **91.8%** (32,573/35,499)

H1 2025 **83.3%** (32,456/38,965)

PATIENT VOLUME
High Throughput

8,512 (overnight) Inpatients: **19,521** (same day)

Outpatients: **253,532**

WORKFORCE DEVELOPMENT
Building Talent

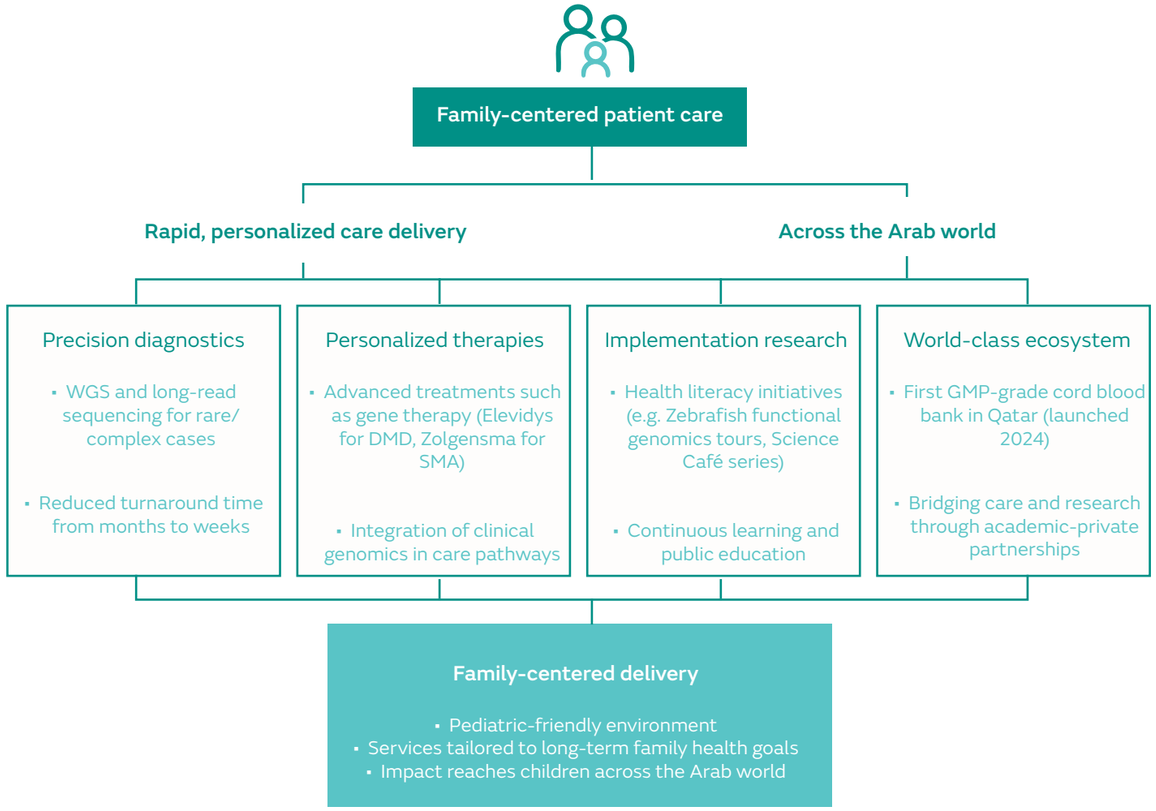
12+ externs and visiting scientists hosted

69 graduate students mentored (Masters/PhDs)

Value Proposition

Model of Care: Sidra Medicine's model of care is purpose built for complexity. Centered on women and children with rare or chronic conditions, our delivery approach merges cutting-edge diagnostics with translational research and a strong emphasis on family-centered environments. This four-pronged framework – Precision Diagnostics, Personalized Therapies, Implementation Research, and an integrated Ecosystem – aligns with best practices from global Academic Learning Health Systems and supports the Human and Social Development pillars of QNV 2030 by building a resilient, specialized health care system. At the clinical level, we continue to scale high-impact technologies such as clinical-grade whole genome sequencing (WGS) and long-read sequencing to help reduce diagnostic odysseys. In 2024, turnaround times for genetic diagnoses were cut from several months to mere weeks, enhancing clinical decision-making for critically ill children. That same year, we also launched Qatar's first GMP-grade cord blood bank, offering 30+ year cryopreservation to families seeking future-proofed care – demonstrating our contribution to long-term biomedical innovation and national health care preparedness.

Clinical Impact: Our model is distinguished by a capacity to translate benchside innovation into bedside value. As of 2024, Sidra Medicine became the first hospital in Qatar – and only the fifth globally – to administer gene therapy (Elevidys) for DMD. We also became the MENA centre for Zolgensma spinal muscular atrophy care, under the direction of Novartis, and continue to lead in expanding rare disease interventions across the region. These breakthroughs enhance care outcomes and position Qatar as a regional nexus for precision medicine – directly supporting QNV 2030's emphasis on knowledge-based economic diversification.



Clinical Excellence

Protocols: Sidra Medicine's clinical excellence is grounded in rigorous quality systems, including Joint Commission International accreditation, International Organization for Standardization (ISO) certifications, and internal audits. Our antimicrobial stewardship program – powered by BD Phoenix M50 – enables rapid, accurate pediatric infection treatment via direct antimicrobial susceptibility testing, a first in Qatar. In 2024 we performed the region's first high-risk cesarean in an angiography suite, integrating interventional radiology into maternal care. We also introduced Enhanced Recovery After Surgery (ERAS) protocols for pediatric patients, improving recovery times and reducing readmissions. These efforts align with QNV 2030's vision for high-quality care.

Diagnostics: We have reduced time-to-diagnosis for rare diseases from a regional average of five years to three to six months through WGS, long-read sequencing ,and functional genomics using Zebrafish models. This has enabled faster, more targeted care. Our Internal Research Fund (IRF) supports outcome-driven studies linking genomics to clinical impact. In 2024 IRF backed trials for rare pediatric diseases demonstrated measurable gains in admission outcomes and survival rates.

Quality: Clinical indicators reinforce this progress. Length-of-stay benchmarks improved, while infection control has been strengthened through evidence-based studies on pathogen resistance, particularly in neonatal and pediatric populations. The hospital's 2025 Ministry of Public Health inspection recorded 100% compliance, affirming adherence to national safety protocols and underscoring its role in driving systemic improvements in line with wider national strategic goals.

Clinical excellence at Sidra Medicine

Sidra Medicine's layered approach to clinical quality combines accreditation, innovation, and operational milestones

Accreditation & standards

- Joint Commission International accreditation
- ISO certification
- Reaccreditation by the College of American Pathologists (CAP)
- Institutional accreditation by the Royal College of Physicians and Surgeons of Canada
- 100% compliance with Ministry of Public Health License Renewal Inspection (2025)

Diagnostic innovations

Technologies & methods:

- Clinical-grade WGS
- Long-read sequencing platforms Zebrafish functional genomics models

Infection control & safety

Key tools & measures:

- Direct antimicrobial susceptibility testing via BD Phoenix M50 system
- Enhanced pathogen resistance tracking in neonatal and paediatric cases
- Adoption of ERAS protocols for children
- Integration of clinical microbiology with real-time infection control

Clinical milestones & firsts

Jun 2024 First hospital in Qatar to administer Elexadrol for Duchenne Muscular Dystrophy

Dec 2024 First-ever cesarean section in an angiography suite in Qatar

2024 First in Qatar to deliver gene therapy for rare diseases

2025 First in Qatar to conduct Osia® implant hearing surgery

2025 First in the Middle East to perform Intraventricular Baclofen Therapy

2025 Inauguration of Pediatric Hematopoietic Stem Cell Transplant ward

Outcome-driven research

Sidra Medicine's IRF mandates all research proposals be clinical outcome-linked

Measurable improvements in:

- Diagnostic precision
- Treatment efficacy
- Reduction in hospital length of stay
- Avoidance of readmissions

International Benchmarking

Performance: Clinically, we continue to surpass key benchmarks. The colorectal cancer microbiome study – published in Nature Medicine – demonstrated a 97% five-year survival prognostic rate using the novel mICRoScore. This exceeded international standards and underscored Sidra Medicine's strength in precision oncology. Through such advancements, Qatar is improving patient outcomes domestically and enhancing its global reputation for clinical excellence – a strategic objective embedded in QNV 2030's economic diversification framework.

Standing: In 2024 we published 97 peer-reviewed research studies, with 58% in journals with an impact factor above 4.5. Its average impact factor rose to 8.7, and its H-index across departments reached 26.4 – on par with leading international centers. These results support QNV 2030's ambition for Qatar to cultivate competitive, globally connected institutions across knowledge-driven sectors.

Sidra Medicine is also recognized for housing the region's largest genome cohort study, analyzing more than 6,000 Qatari genomes to map rare disease prevalence. Published in *Genome Medicine*, this work advances the country's role in genomic epidemiology and precision screening – while informing scalable population health strategies.

Engagement: Our global visibility was further reinforced through the 2024 Precision Medicine and the Future of Genomics (PMFG) Summit, which convened 1,100 stakeholders and 50+ speakers. The institution's leadership in precision medicine and academic publishing supports our continued inclusion in global research consortia and dialogues – helping Qatar elevate its footprint in medical science and technology, in line with national vision.

Sidra Medicine's academic and clinical benchmarks place us in the upper tier of global pediatric research hospitals – affirming our alignment with QNV 2030's international competitiveness and precision health care goals



Global Collaborations

Alliances: Sidra Medicine's collaborative footprint spans continents, with 74 active partnerships – including 36 international agreements – focused on research, diagnostics, and genomic innovation. These alliances directly support Qatar's ambition to become a center for cross-border medical research and life sciences under QNV 2030, while diversifying the economy through knowledge-intensive sectors. A key milestone was the BARAKA-Qatar autism study, which enrolled 1,500 participants in partnership with SickKids Canada and MSSNG. This has produced the largest Middle Eastern autism genetics dataset to date, enhancing global representation in neurodevelopmental research and reinforcing our role in international data sharing.

Innovation: In April 2024 we formalized a partnership with Genialis to incorporate RNA biomarker-based predictive modelling in oncology, tailoring care for diverse patient cohorts. Another high-impact project is the colon cancer atlas, co-developed with LUMC in the Netherlands, which leverages the mICRoScore to redefine survival pathways in regional populations Further, we joined the MENA Microbiome Consortium during its inaugural conference, bringing together key regional actors including the Ministry of Public Health; Children's Hospital of Philadelphia; and the Qatar Research, Development and Innovation Council.

Integration: Sidra Medicine's collaboration with Qatar Genome Program and Qatar Biobank continues to yield foundational data for national health strategies. Our shared clinical trials infrastructure with entities like Nova Meg and Roche links Qatar to a global pipeline of innovation, particularly in gene therapy and congenital disease management. We also signed memoranda of understanding in 2025 with Vitafluence.ai and the Izmir Biomedicine and Genome Centre, further enhancing our artificial intelligence and genomics portfolio. These partnerships enable the commercialization of core genomic platforms, now accessible to institutions across the Gulf region – contributing to the export of Qatari-developed scientific capacity on a global level.

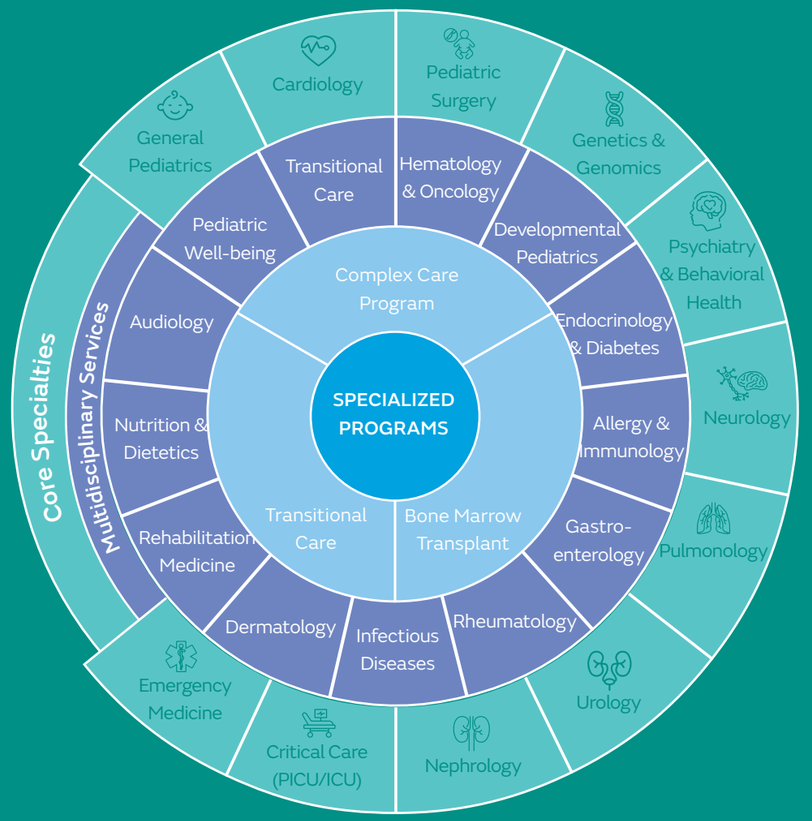


Pediatric Care

Sidra Medicine stands as Qatar's premier pediatric tertiary care center, offering more than 46 subspecialties ranging from cardiology and surgery to psychiatry, pulmonology, and genomics. Powered by advanced diagnostics and interdisciplinary collaboration, our care delivery model places the child and family at the center. As part of the country's investment in personalized and precision medicine, Sidra Medicine aligns with QNV 2030 by advancing system innovation, workforce specialization, and long-term pediatric health resilience.

Comprehensive pediatric care at Sidra Medicine

Sidra Medicine's Pediatric Care ecosystem is a multi-tiered platform of child health services aligned with QNV 2030's ambitions for system-wide capability, innovation, and continuity of care.



Key pediatric metrics | 2024 snapshot

Sidra Medicine's rising standing in alignment with QNV 2030's health metrics: access, quality, and satisfaction.

21
Pediatric subspecialties offered
Full spectrum from genetics to psychiatry

5,699
Main OR pediatric procedures (2024)
Plus 2,295 non-surgical cases

7.5 days
Avg. stay – Pediatric Care
PICU: 7.43 | NICU: 14.72 | Surgery: 2.64

Genetics & Genomic Medicine

Sidra Medicine is redefining rare disease care through a pediatric genomics pipeline that integrates advanced diagnostics with personalized therapies. Our program centers on Duchenne Muscular Dystrophy (DMD) and Spinal Muscular Atrophy (SMA) – two of the region's most pressing pediatric genetic conditions. In 2024 we became the first hospital in Qatar and the fifth globally to administer Elevidys, a groundbreaking gene therapy for DMD, including for older children beyond the approved age range. Similarly, our SMA program has delivered Zolgensma to nearly 50 infants, offering life-saving interventions and renewed hope to families across the Middle East.

Innovation: Precision medicine is embedded into daily clinical workflows, supported by whole genome sequencing, long-read and single-cell sequencing, and deep cellular phenotyping. These tools enable earlier, more accurate diagnoses, reduce hospital stays, and guide access to novel therapies. In a region with elevated rates of inherited conditions, our approach is transforming outcomes.

Clinical Trials: Our Clinical Trials Program strengthens our impact, targeting rare pediatric diseases through ethically governed Phase 1-4 studies. These trials not only expand treatment options but also address the data gap for Arab populations, contributing to global genomic equity.

Holistic care: In 2024 care teams expanded their scope to support gene therapy recipients – particularly children with DMD and SMA – through integrated rehabilitation, neurodevelopmental monitoring, and psychosocial services. Each patient is guided by a dedicated pathway that includes genetic counseling, physiotherapy, and long-term follow-up, ensuring continuity from diagnosis to recovery.

New service protocols now embed therapeutic readiness assessments, caregiver education, and post-treatment tracking into routine practice. For families navigating rare disease diagnoses, this model offers more than clinical intervention – it delivers sustained, personalized support



Neurology & Gastroenterology



Neurology: The Neurology Department at Sidra Medicine is a leading center for clinical care and translational research, advancing the understanding, diagnosis, and treatment of pediatric neurological disorders. Our work spans epilepsy, neurodevelopmental disorders, and neuromuscular diseases, with collaborations linking Sidra Medicine's research center to global teams. A flagship achievement has been our contribution to the Neuroscience Translational Research Program, which investigates the genetic basis of neurodevelopmental disorders in the MENA region. This effort has identified novel mutations and syndromes, enhancing global genomic databases and ensuring regional populations are represented in neuroscience literature. Clinical innovation continues to shape care. Our Epilepsy Surgery Program reached 60 procedures since its launch, underscoring our expertise in complex interventions. The Seizure-Smart Schools initiative has trained more than 2,800 teachers, nurses, and administrators across 100 schools in Qatar, building community-wide awareness and preparedness. In neuromuscular research, Sidra Medicine achieved a historic breakthrough in 2024 by becoming the first hospital in Qatar – and the first outside the US – to administer gene therapy for DMD in children over six years of age.

Gastroenterology: Sidra Medicine's pediatric gastroenterology division continues to lead the region in precision-based digestive care, combining advanced diagnostics, multidisciplinary collaboration, and translational research. In 2024 the division's footprint expanded with the launch of Qatar's first Liver Transplant Clinic, and the approval of the liver transplant business case now awaits ministerial endorsement.

Motility Innovation: The Pediatric Neurogastroenterology and Motility Center remains the only pediatric facility in the Middle East offering colonic and antroduodenal manometry, alongside anorectal and esophageal studies. New services include electrogastrography, pH-impedance monitoring, and botulinum toxin therapy for motility disorders. A soft launch of biofeedback therapy for chronic constipation further enhances individualized care.

Holistic Care & Research: Our gastrointestinal (GI) team manages a wide spectrum of conditions – from inflammatory bowel disease and liver disease to eosinophilic esophagitis and GI food allergies. Integrated care pathways include nutrition, psychology, and speech therapy, ensuring support for complex cases. The division also won the Global Grants for Gut Health best abstract prize and secured an Internal Research Fund grant for early diagnosis of non-IgE mediated cow milk allergy.

These endeavors reflect Sidra Medicine's commitment to QNV 2030, advancing health care innovation, research excellence, and regional leadership in pediatric gastroenterology. With rising international patient volumes and streamlined endoscopy pathways, we continue to deliver high-impact, family-centered care that meets the evolving needs of Qatar's population.

Developmental Pediatrics & Mental Health

Mental Health: Sidra Medicine's Child and Adolescent Mental Health Services (CAMHS) place emotional well-being at the center of pediatric care, recognizing its equal importance to physical health. The service supports children aged five to 18, alongside their families, through confidential, compassionate, and expert care.

The CAMHS outpatient clinic, based in the Sidra Outpatient Building, provides a wide range of services. Our internationally trained team addresses a broad range of mental health and neurodevelopmental disorders, combining individual and group psychotherapy and medication management, tailored to each child's unique needs.

The team is actively providing vital psychological support to children and young people arriving from Gaza and Afghanistan. Recognizing the trauma and displacement these children have experienced, the team offers culturally sensitive care, therapeutic interventions, and a safe space to help them rebuild emotional resilience and adjust to their new environment.

A centralized intake process ensures that urgent referrals are seen within seven days, while routine cases are addressed within 30 days, reflecting a commitment to timely, equitable access. In mental health emergencies, including suicidal ideation or acute psychosis, CAMHS works closely with Sidra Medicine's Emergency Department to stabilize patients and coordinate follow-up care.

Developmental Pediatrics: Sidra Medicine's Developmental Pediatrics service has become Qatar's leading center for neurodevelopmental care, operating as a fully private, self-pay service since 2022. Demand continues to grow, with around 53 new referrals per week and around 300 children diagnosed with autism annually, of whom 56% are Qatari nationals. Diagnosis is guided by global protocols, including the Autism Diagnostic Observation Schedule, multi-disciplinary testing, and IQ batteries suitable for children with autism. Each case is followed by a tailored care plan, which may include individualized therapy roadmaps, family coaching, educational placement guidance, genetic testing, pharmacological treatment, and coordination with subspecialties such as audiology, neurology, ophthalmology, and CAMHS.

In 2024 the service played a central role in the Qatar National Autism Plan and the Qatar Foundation Autism Strategy, while strengthening advocacy in education, primary health care and community awareness.



Heart Center



The Heart Center at Sidra Medicine delivers fully integrated care for congenital and acquired cardiac conditions in children, from advanced diagnostics to surgical repair and rehabilitation. In 2024 the center performed 283 cardiac surgical procedures, with a 30-day mortality rate of close to 4% in keeping with international standards for high-complexity interventions. In parallel, 314 catheter procedures with a very low morbidity rate, also in keeping with international best standards.These outcomes reflect Qatar's vision under QNV 2030, which aims to foster specialized centers of excellence.

Innovation: Sidra Medicine has pioneered several technological advancements in pediatric cardiac care, including real-time cardiac MRI and 3D-printed heart models. A novel hybrid strategy for managing Hypoplastic Left Heart Syndrome, combining catheterization and surgical techniques, has reduced intervention frequency and maintained a mortality rate below 10%. The introduction of bioresorbable stents, the Impella system, and the Myval implantable valve in 2024 broadened the therapeutic options available at Sidra Medicine, while a new portable C-arm expanded imaging capacity across intensive care and operating environments.

Care model: Our multidisciplinary model brings together cardiologists, surgeons, anesthesiologists, and Cardiac Intensive Care Unit staff in daily joint rounds and care pathways that promote real-time collaboration. This ensures coordination from diagnosis to recovery, enabling high survival rates, shorter hospital stays, and fewer complications. As Qatar invests in care infrastructure, our heart program sets a precedent for maximizing health care impact through coordinated, high-acuity pediatric services.

Research & Future-readiness: Translational research on genetic cardiomyopathies and novel imaging biomarkers is integrated into care delivery, reinforcing Qatar's shift toward a knowledge-based health economy. The center's accreditation in pediatric echocardiography strengthens diagnostic excellence and professional development – reducing outbound medical travel and positioning Qatar as a regional hub for innovative pediatric cardiac care.

Pediatric Surgery

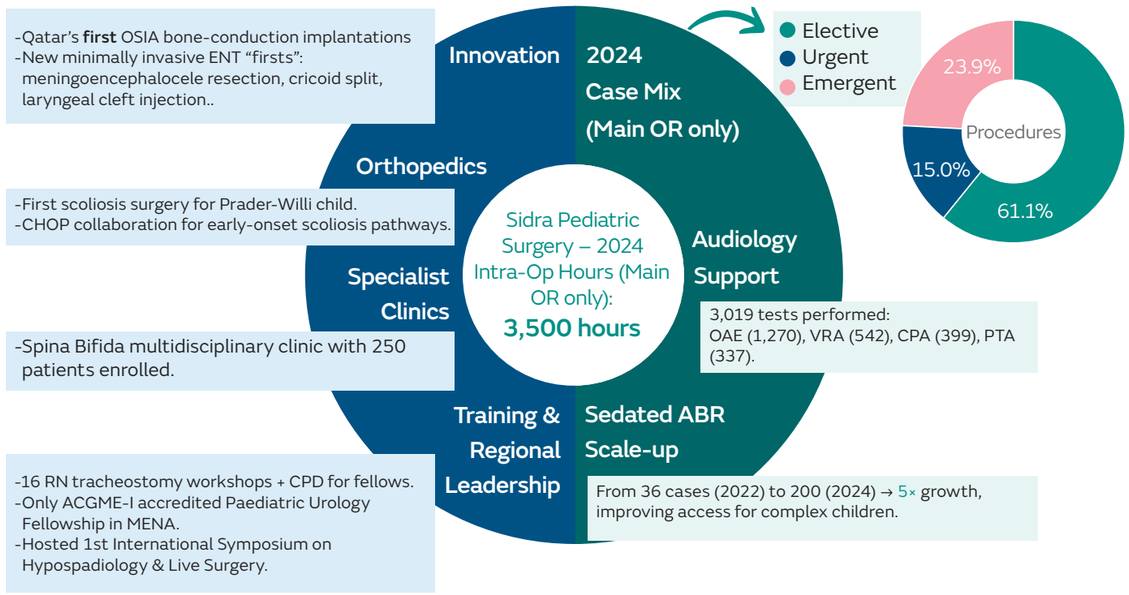
Pediatric Surgery: Sidra Medicine continued to broaden the overall scope of pediatric surgical and peri-operative care in 2024, building local capabilities that significantly reduce the need for overseas referrals. Audiology services supported a total of 3,019 diagnostic tests, led by otoacoustic emissions (1,270) and visual reinforcement audiometry, thereby ensuring robust pre-surgical assessment and seamless continuity of care. Sedated auditory brainstem response procedures rose more than five-fold in just two years, increasing from 36 in 2022 to 200 in 2024, enabled by multi-disciplinary theatre coordination and ongoing institutional support.

Innovation: We achieved multiple firsts for Qatar in 2024, including OSIA bone-conduction implantations for children with complex otologic needs and pediatric ear, nose, and throat interventions such as endoscopic resection of nasal meningoencephalocele, pyriform aperture stenosis drill-out, and laryngeal cleft injection laryngoplasties – minimally invasive approaches, reducing recovery and family burden.

Short Bowel Service: Since 2024, long-term care has been expanded by enrolling five new children, treated three international Kuwaiti patients, and completed the Qatar Short Bowel Registry groundwork. The team increased outreach through multiple talks, introduced teduglutide for intestinal rehabilitation, and published outcomes in Pediatric Surgery International.

Specialist Expertise: Complex care extended across divisions. Orthopedics delivered Qatar's first scoliosis surgery for a child with Prader-Willi syndrome and partnered with CHOP to establish early-onset scoliosis pathways. Pediatric urology advanced laparoscopic and robotic procedures, performed renal transplantation where indicated, and operated specialist clinics such as the Spina Bifida clinic, with 250 patients enrolled.

Building Capacity: We further strengthened our role as a recognized regional leader through education and training. The CPD-accredited tracheostomy workshop series improved safety and caregiver confidence, while the Pediatric Urology Fellowship – the only program certified by the Accreditation Council for Graduate Medical Education-International in the Middle East – trained future specialists. Hosting the first International Symposium on Hypospadiology & Live Surgery further embedded Sidra Medicine within the global pediatric surgery community, furthering QNV 2030 goals to foster



Urology and Nephrology

Sidra Medicine's urology department has emerged as a regional leader in pediatric surgical and clinical care, combining cutting-edge treatments with pioneering research. In 2024, the service recorded 11,563 outpatient appointments and performed more than 400 surgical procedures. Three multidisciplinary clinics were established – for spina bifida, disorders of sexual development and voiding dysfunction – which remain the only dedicated services of their kind in Qatar. The department also organized two international symposia on hypospadias and hydronephrosis, reinforcing its role as a knowledge center.

Research: Academic achievements have been equally significant. The team delivered 37 presentations at international meetings, published 10 scientific papers, and now runs 13 ongoing, carefully monitored institutional review board-approved projects. A biobank for hypospadias was also established, underlining Sidra Medicine's contribution to advancing understanding of rare pediatric urological conditions. Excellence is further validated through global recognition: the fellowship program is certified by the Accreditation Council for Graduate Medical Education-International, while faculty distinction includes Dr Tariq Abbas being ranked in the top 2% of scientists globally by Stanford, and Dr Ananda Nunes serving on the board of the European Society of Pediatric Urology Nurse Chapter.

Minimally invasive surgery continues to drive patient outcomes, with laparoscopy and endoscopic approach central to the therapeutic model. These approaches reduce hospital stays, improve recovery and consistently support family well-being and resilience.

Nephrology: The nephrology team delivers essential kidney-related therapies. In the past year, 68 plasma exchange treatments, four red blood cell exchanges and four stem cell collections were undertaken. Critically ill children received 2,274 hours of continuous renal replacement therapy, while 1,875 dialysis visits provided sustained support for chronic patients. These services highlight the department's integrated and expanding role in complex, multidisciplinary pediatric care.



Gaza Humanitarian Care Program

In December 2023, Sidra Medicine responded to a national call to provide critical care for Palestinian children injured in the Gaza conflict. We opened a dedicated 22-bed ward to receive pediatric patients suffering from poly-trauma, neurological injuries, and severe surgical complications. By mid-2024, nearly 170 children had received inpatient and outpatient services, with follow-up care continuing for more than 150.

Integrated Trauma Care: Patients often required complex surgical interventions, skin grafts, orthopedic repair, and neurological assessments. Coordinated efforts across trauma surgery, rehabilitation, general pediatrics, and pain management ensured that each child received comprehensive, staged care. These efforts resonate with QNV 2030's vision of strengthening Qatar's role in international health diplomacy through responsive, high-impact intervention.

Psychosocial Support: We adopted culturally sensitive, trauma-informed protocols throughout the care journey. Arabic-language counselling, play therapy, and structured caregiver support were offered both during hospitalization and in outpatient settings. The mental health team also led staff debriefings to enhance internal resilience and maintain care quality under emotionally intense conditions.

Continuity & Capacity: Collaboration with humanitarian agencies, Gaza-based hospitals, and international NGOs facilitated a more streamlined approach to triage and post-discharge planning for affected patients. Our chief medical officer acted as national pediatric lead, playing a key role in helping standardize care across institutions and further reinforcing Qatar's leadership in coordinated humanitarian medical response.

Beyond reflecting empathic care, this program underscores Qatar's capacity to operationalize advanced medical systems in the service of vulnerable populations. In doing so, we directly contribute to QNV 2030's Social Development pillar, demonstrating that empathy, excellence, and strategic foresight can coexist in one of the region's most ambitious health platforms.



Global Patient Services

Nationality	Number of Patients
Afghan	305
Algerian	3
American	2
Australian	1
Bahraini	1
British	4
Canadian	1
Egyptian	1
Emirati	2
Greek	1
Indian	1
Iraqi	6
Jordanian	5
Kuwaiti	106
Lebanese	2
Nigerian	1
Omani	3
Pakistani	7
Saudi	1
Sudanese	1
Swedish	1
Syrian	2



Sidra Medicine' Global Patient Services (GPS) exemplifies how world-class clinical expertise can be paired with seamless patient support. In a healthcare environment where patient choice extends across borders, the ability to deliver not only cutting-edge treatments but also an integrated journey of care is becoming a decisive factor in attracting international patients.

Sidra Medicine's core strength lies in its specialisation in women's and children's health, with advanced services ranging from congenital cardiac surgery to gene therapy for rare paediatric diseases. These flagship clinical programs are benchmarked against leading institutions in Europe and North America, ensuring outcomes that meet global standards. Yet the institution's differentiation within the competitive medical tourism market extends beyond clinical outcomes: it is the comprehensive GPS framework that transforms treatment into a holistic experience.

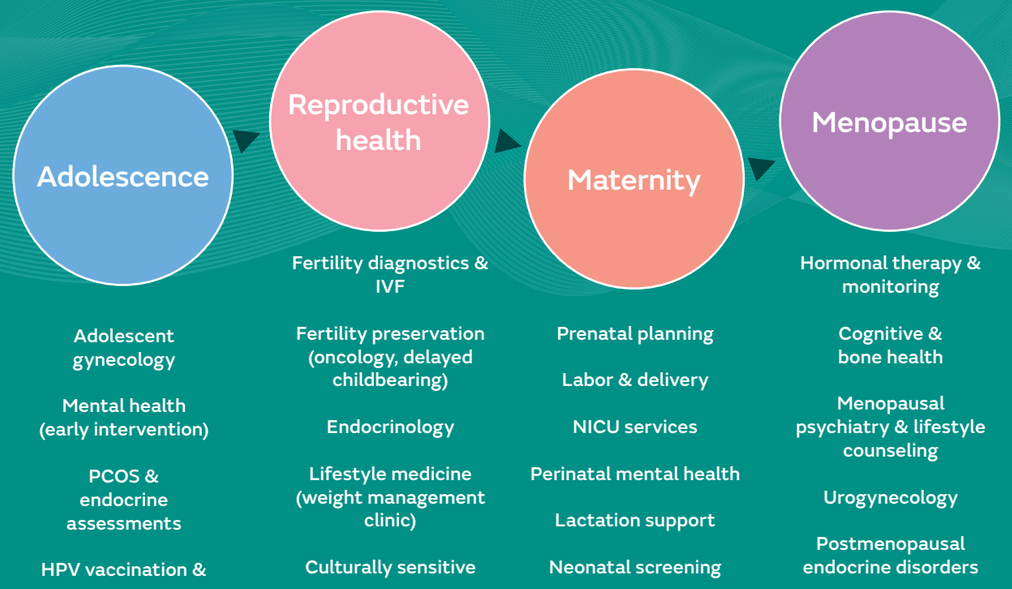
The service portfolio addresses the logistical, cultural and emotional challenges faced by families seeking treatment abroad. From visa facilitation and airport transfers to accommodation booking, cost-of-care guidance and multilingual interpretation, the model is designed to reduce friction at every stage. Importantly, GPS also ensures continuity of care post-discharge through digital health records, coordinated follow-ups, and medical summaries shared with physicians in patients' home countries. This dual emphasis on world-class clinical care and wraparound patient support reflects an understanding that medical tourism requires both trust in the quality of medicine and confidence in the overall journey.

Sidra Medicine's approach is strategically aligned with Qatar's broader goals under the National Vision 2030, where health system excellence and economic diversification are priorities. By combining advanced clinical innovation with a patient-centered service.

Women’s Health

Sidra Medicine stands at the forefront of women’s health in Qatar, integrating personalized medicine, genomic science, and culturally attuned care to support women across every stage of life. With a predominantly women-led research workforce and targeted investment in maternal and reproductive health, our ecosystem embodies QNV 2030 goals for human and social development. From genomics-driven diagnostics to nutrition-led interventions, women’s health at Sidra Medicine is underpinned by a transformative model of care that centers empathy and scientific rigor.

Care Spectrum: Women’s Health Across Life Stages at Sidra Medicine



At a glance: Women’s health metrics, 2024

2.9 days	Average inpatient stay (women’s services)
70%	Share of female researchers
1,391	Total deliveries
958	Women’s surgical procedures (main operating room)
527	Women’s surgical procedures (non-invasive)

Reproductive Medicine

Sidra Medicine’s reproductive services exemplify how patient-centric innovation can address national priorities in fertility and family building. In 2024 the Reproductive Medicine Unit performed 444 in vitro fertilization treatment cycles, with a pregnancy success rate of 61% in patients under the age of 34 and 66% among those aged 38-40. These figures place Sidra Medicine above several regional benchmarks. Fertility preservation services for oncology and time-sensitive cases – such as sperm cryopreservation – are complemented by an ovarian tissue program that is now in its final validation phase. Protocols reflect local ethical standards and cultural values, in alignment with the social dimensions of QNV 2030.

Precision & integration: Endocrine care is pivotal to our personalized fertility model. A dedicated endocrine clinic collaborates closely with genomic medicine labs to tailor treatments for hormonal disorders. Hormonal profiles, metabolic status, and psychological readiness guide individualized interventions, including monitored use of GLP-1 agonists. Our PreNutri Lab links nutrition, epigenetics, and gut microbiota to infertility treatment, while the Laboratory of Reproductive Biology uses Zebrafish models and next-generation sequencing to identify genetic causes of fertilization failure in Qatari patients.

Regional leadership: Sidra Medicine’s scientific leadership is demonstrated by our role as host of the 2024 Middle East Fertility Society Conference – the region’s largest fertility conference. Our institution also won the Samir Abbas Best Research Award for groundbreaking findings on embryo transfer efficacy. With over QR7m in internal research funding, we are driving regionally relevant studies in reproductive genomics. Our ACGME-accredited fellowship in reproductive endocrinology – unique outside the US – further reflects a robust commitment to QNV 2030’s education and health care innovation pillars.

Personalised Fertility Pathway at Sidra Medicine

Stage 1
DIAGNOSIS & ASSESSMENT
- Hormonal evaluation
- Genetic testing (infertility gene panels)
- Lifestyle and metabolic profiling
- Psychological screening
- Cultural/ethical suitability review

Stage 2
PERSONALISED TREATMENT PLANNING
- IVF or ICSI selection
- Fertility preservation (oncology, age-related)
- Endocrine treatment for PCOS
- Weight optimisation (GLP-1 agonists)
- Nutrition-based counselling (via PreNutri Lab)

Stage 3
CLINICAL INTERVENTION
- Ovarian stimulation
- Oocyte retrieval & fertilisation
- Fresh or frozen embryo transfer
- Genetic testing (PGT-A)
- Partner-inclusive sessions and procedural support
- Monitoring for emotional well-being

Stage 4
OUTCOME MONITORING
- Pregnancy success tracking
- Repeat embryo transfer (if needed)
- Complication monitoring
- Data feedback into clinical research (e.g., fertility genomics, nutrition effects)
- Post-treatment counseling & referrals

Reproductive care by the numbers, 2024

444	Total IVF cycles performed
273	Oocyte retrievals
66%	Pregnancy success rate (Age 38-40)
63%	Pre-implantation genetic testing (PGT-A) success rate, Predominantly Elective Single-embryo Transfers (eSET)
61%	Pregnancy success rate (Age <34), eSET

Maternity

Built for Safety: Protocols Supporting Positive Birth Outcomes



In 2024 Sidra Medicine facilitated 1,391 births, with over 25% classified as high risk and 15.8% requiring NICU admission. Clinical excellence is supported by structured safety bundles, infection control protocols, and real-time monitoring. An infection prevention system enables best practices across obstetric pathways. These standards enhance Qatar's maternal and neonatal outcomes, in keeping with the goals of QNV 2030.

Continuity of care: Our maternity care model spans prenatal counselling to postpartum recovery, integrating patient education, lactation consulting, and pain management. Feedback is gathered through interviews to inform quality improvement initiatives. Birth plans are co-designed during the prenatal stage and multidisciplinary teams – including midwives, anesthetists, psychologists, and social workers – support emotional and physical readiness. The average women's inpatient stay is 2.9 days, reflecting operational efficiency in routine and high-risk cases alike.

Research pipeline: Our research enterprise advances clinical outcomes through applied science. The Microbiome and Biomarkers Discovery Lab investigates gestational diabetes and preterm birth using omics-based microbial markers. Research on maternal-fetal nutrition and epigenetics are informing breastfeeding protocols and trauma prevention strategies. At the genomic level, Zebrafish models are used to study congenital anomalies and refine prenatal diagnostics. Initiatives in stem cell therapy and regenerative medicine, particularly using cord blood, target improved outcomes for NICU patients.

Mental Health

Sidra Medicine's mental health services address the distinct psychological needs of women from adolescence to menopause. In 2024 the facility provided 4,787 consultations for women, bringing the total since inception to over 33,000. Care is tailored to stressors including perinatal depression, fertility-related anxiety, adult ADHD, early dementia, and trauma-related disorders. Worldwide, one in five women are affected by perinatal mental health conditions and our protocols – spanning medication, therapy and social support – ensure comprehensive and effective management.

Integrated models: Mental health is embedded within every facet of women's services. Co-location with OB/GYN and reproductive clinics facilitates early screening and coordinated interventions. Mental health teams are notified of all high-risk obstetric cases, postpartum admissions, and NICU placements involving maternal distress. Nurses and midwives are trained to detect early symptoms, ensuring swift escalation. These referral pathways extend to lifestyle services such as the Weight Management Clinic, where psychology is part of a holistic intervention framework.

Research & innovation: The Hi-FIT KID Study and Laboratory of Immunoregulation are advancing our precision approach by linking inflammation and neuropsychiatric conditions in women. Flow cytometry and imaging are used to identify biomarkers for postpartum psychiatric illnesses, improving detection and care planning. Multilingual genomic counseling protocols address the mental health implications of inherited conditions. Engagement metrics such as PHQ-9 and GAD-7 scores, and attrition tracking ensure patient responsiveness is monitored. By integrating research with service delivery, we advance the goals of QNV 2030 and address barriers to mental health access and stigma.

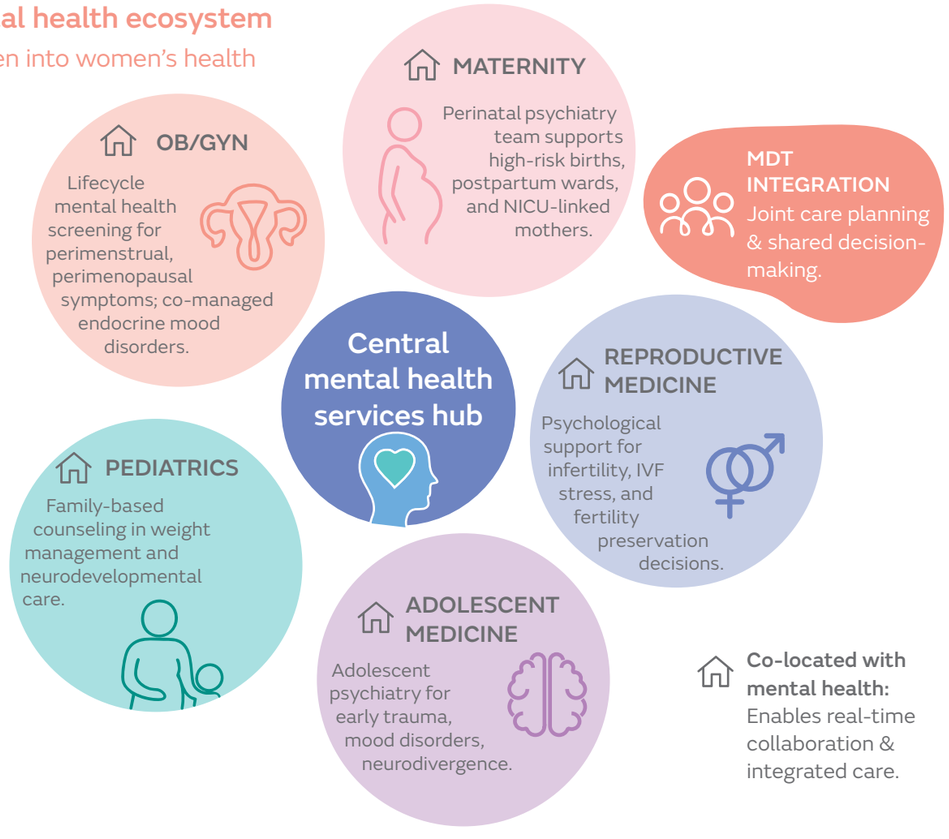
Integrated mental health ecosystem

Mental health woven into women's health at Sidra Medicine

4,787
Annual mental health consultations (2024)

33,236
Cumulative consultations (2017-2024)

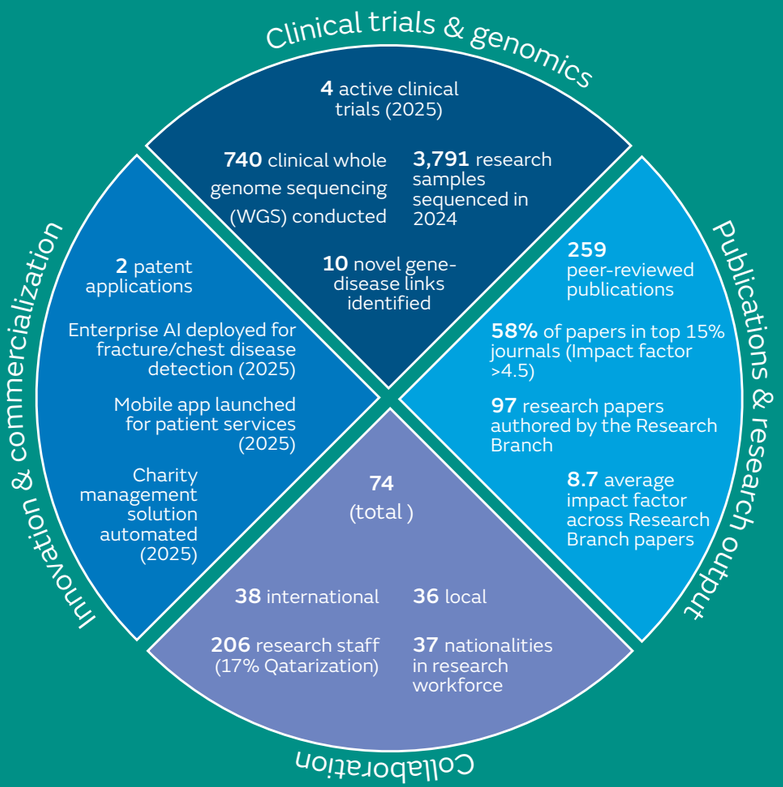
6,024
Projected consultations (2025)



Research & Innovation

Sidra Medicine plays a pivotal role in advancing Qatar's biomedical research agenda, serving as a regional center for precision medicine, genomics, and cell therapy. In line with QNV 2030, Sidra Medicine supports the development of a knowledge-based economy and strengthens health care innovation. In 2024 we recorded 259 peer-reviewed publications, QR22m in research grant funding, and more than 140 active collaborations, reaffirming the institution's growing impact on regional health research ecosystems.

Key Performance Indicators 2024-25



Sidra Medicine – 2024 highlights

226 Ongoing research projects

58% Research papers in top 15% of journals worldwide

2 Patent applications filed in 2024

740 Clinical whole genome sequences completed

259 Peer-reviewed publications

QR22m In external research grant funding

74 Total collaborations (local & international)

13,888 Patients enrolled in research studies

Translational Research Impact

Sidra Medicine's translational research division, spanning programs in Congenital Malformations, Immune Dysregulation, Metabolic and Mendelian Disorders, Neuroscience, Pediatric Oncology, and Reproductive and Perinatal Health, continues to demonstrate measurable clinical value, in line with QNV 2030's emphasis on health care innovation and human development.

Pediatric oncology: Sidra Medicine's Pediatric Precision Oncology Program expanded its reach in 2024, offering comprehensive molecular profiling – including WGS – to all pediatric oncology patients. Today, a multidisciplinary molecular board reviews each and every case, thus further enabling therapy customization based on individual tumor genetics.

Notably, a two-year-old Burkitt's lymphoma patient underwent WGS at Sidra Medicine, which revealed actionable mutations and facilitated a targeted treatment plan. This reduces diagnostic turnaround time from months to weeks, enhancing survival chances and family support. Complementing this, the launch of CAR T-cell therapy trials marked a critical advancement in cellular immunotherapy for childhood cancers.

Reproductive & perinatal health: Sidra Medicine also deepened research into preeclampsia and preterm birth, both major contributors to maternal and neonatal mortality. A 2024 study on placental microbiomes uncovered microbial biomarkers with diagnostic potential. Clinical protocols were updated accordingly, resulting in a 5% improvement in neonatal survival rates at the institution's NICU.

Rare disorders: We advanced rare disease research through our Zebrafish-based platform, enabling precise modelling of patient-specific genotypes. By decoding genetic variation from cell to organism level, the facility helped validate gene functions, clarify diagnoses, and guide treatment strategies. By translating cutting-edge science into frontline care, Sidra Medicine enhances outcomes, reduces inefficiencies, and elevates Qatar's standing as a biomedical innovation leader – fulfilling our institutional mission and national development strategy.

Sidra Medicine's integrated research platform

ADVANCED DIAGNOSTIC CORES

Integrated Genomics Cores

Clinical Genomics Laboratory
Medium to high throughput short-read sequencing; CAP accredited clinical whole genome sequencing (WGS)

Omics Core Facility
Biospecimen storage, long-read sequencing and genotyping

Genomic Data Science Core
AI-powered genomic interpretation, data modelling, and visualisation

Deep Phenotyping and Disease Modeling Cores

Advanced Imaging Core
High-throughput and in-vivo imaging, and diagnostics for research-clinical feedback loop

Flow Cytometry Core
Advanced diagnostics through cellular, molecular, and functional phenotyping

Zebrafish Functional Genomics Core
In vivo validation of gene-disease associations

THERAPEUTIC CORES

Advanced Cell Therapy Core (ACTC)
GMP-certified manufacturing of cell and gene therapies

Clinical Trials Office
Phase I-IV trials coordination, protocol design, regulatory navigation

Research Infrastructure

In 2024 core facilities – including the Clinical Genomics Laboratory, Omics Core, Flow Cytometry Core, Advanced Imaging Core, Genomic Data Science Core, and Zebrafish Functional Genomics Core – continued to advance translational research to a global standard.

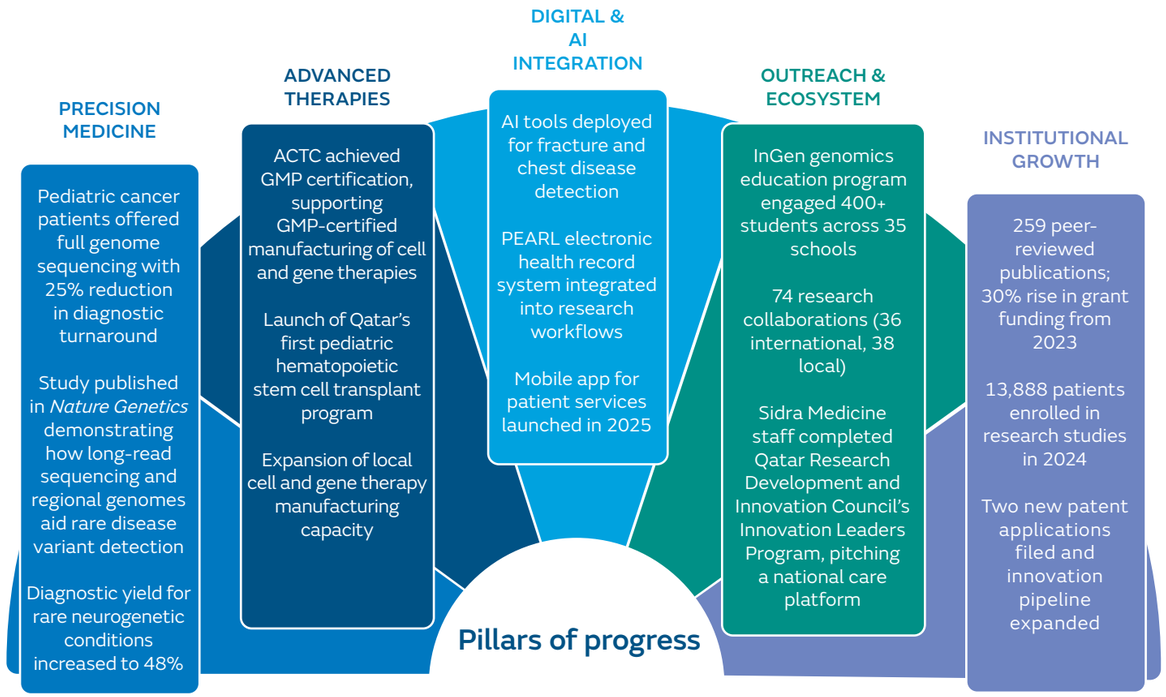
Clinical trials expansion: In 2024 the Clinical Trials Office supported a diverse portfolio of investigator-initiated and sponsored trials across pediatric, oncology, and maternal health domains. A notable milestone was the launch of Qatar's first pediatric hematopoietic stem cell transplant program, enabling treatment for sickle cell anemia, leukemia, and other conditions previously referred abroad.

Data & digital platforms: Significant upgrades reinforced our digital infrastructure. The proprietary PEARL health record system now supports real-time research access and longitudinal tracking. A Pharmacy Benefit Management solution was introduced in 2025 to Streamline pre-authorization – speeding up access to medications. AI-driven tools, including computer-aided imaging and fracture detection tools, enhanced research and care quality.

Cell & gene therapy: The ACTC achieved full Good Manufacturing Practices (GMP) certification, positioning it as Qatar's leading center for the production of cell and gene therapies. This facility enables the rapid translation of experimental therapies into clinical protocols. By manufacturing autologous and allogenic treatments on site, Sidra Medicine reduces dependency on external suppliers and accelerates care delivery.

Governance & compliance: Sidra Medicine maintains global research standards, adhering to Good Clinical Practice and Good Laboratory Practice protocols. The Clinical Genomics Laboratory aligns its protocols with College of American Pathologists accreditation requirements, while the ACTC pursued both NetCord-FACT and JACIE-FACT certifications.

Sidra Medicine's robust infrastructure ensures that the institution is well positioned to scale its research and development outputs that align with QNV 2030's vision of integrating innovation across the fields of health and science, among others.



Partnerships



Sidra Medicine's partnerships form a critical component of our 2024 strategy to strengthen Qatar's biomedical innovation landscape. Through strategic alliances with Qatar Foundation, Hamad Medical Corporation, Weill Cornell Medicine-Qatar, and the Qatar Genome Program, Sidra advances national objectives outlined in QNV 2030. Globally, ties with institutions such as the US National Institutes of Health and European Molecular Biology Laboratory expanded the diversity and depth of Sidra Medicine's clinical trial portfolio. Our participation in the sunRIZE Phase III trial for congenital hyperinsulinism exemplifies Qatar's emergence as a credible host for high-impact pediatric research.

Talent development: In parallel, Sidra Medicine continues to build national capacity in medical science. In 2024 the institution welcomed 12 visiting scientists, 69 externs and volunteers, and 11 PhD students, reflecting a broad engagement with 25 academic institutions. The InGen genomics outreach program, run in partnership with the Ministry of Education, exposed over 400 high school students to hands-on training in bioscience, promoting early interest in research careers. Professional development was also evident in our participation in the QRDI Corporate Innovation Leaders program. Staff members pitched an online continuity-of-care platform for patients in the Arabic-speaking world, highlighting a focus on scalable, locally anchored innovation.

Commercialization pipeline: Under the Technology Transfer and Innovation function, we accelerated our innovation-to-commercialization trajectory in 2024, with two new patent applications filed. The integration of biobanking, AI analytics, and regulatory expertise has further positioned Sidra Medicine as a pipeline for commercializing health care solutions.

By anchoring scientific excellence in collaboration and capacity building, Sidra Medicine offers a scalable model for research and development leadership.

Medical Education

Medical education is a defining pillar of Sidra Medicine's institutional identity, reinforcing Qatar's commitment to human capital development under QNV 2030. Through a future-focused academic ecosystem, the hospital prepares a Qatari-led clinical workforce equipped to deliver specialized care in women's and children's health. Accredited by the Accreditation Council for Graduate Medical Education International (ACGME-I) and the Royal College of Physicians and Surgeons of Canada, the institution has graduated over 400 residents and fellows since 2018, while delivering more than 136,900 continuous professional development (CPD) credit hours annually. With over 1,000 medical students completing clinical clerkships to date, Sidra Medicine continues to elevate the standards of medical education and healthcare delivery in Qatar and the GCC.

Sidra Medicine | Medical education key performance indicators (2024-25)

192 Total graduate medical education trainees

90 Total residents currently in training (2025)

102 Total fellows currently in training (2025)

162 Medical students completing clerkships

3,921 Learning activities in 2024

136,000+ Annual CPD credit hours delivered

14 Strategic leadership programme graduates (2025)

16 Qatari-sponsored students supported

Sidra Medicine – Key milestones in medical education (2018-25)

2018
Program launch
Inauguration of Sidra Medicine's residency and fellowship programs.

2019
ACGME-I accreditation
Sidra Medicine receives institutional accreditation from ACGME International.

2024
Royal College accreditation
Institutional accreditation granted by the Royal College of Physicians and Surgeons of Canada.

2024
Leadership certificate launch
Strategic Leadership Certificate Program launched in partnership with Georgetown University-Qatar.

2025
First leadership cohort graduates
14 health care managers complete leadership program, supporting Qatar's health sector governance.

Academic Medical Centre (AMC) & Training Programs

AMC: Sidra Medicine functions as a leading AMC, advancing healthcare excellence in Qatar through the integration of clinical care, medical education, and research. This tripartite model is central to the goals of QNV 2030, which emphasizes institutional excellence, knowledge transfer, and the development of a skilled, homegrown workforce.

Sidra Medicine's AMC status is underpinned by its internationally accredited residency and fellowship programs, CPD offerings, and close collaboration with renowned academic partners such as Weill Cornell Medicine-Qatar, Qatar University, and Hamad Bin Khalifa University. The presence of global academic advisors and experienced international faculty further reinforces the institution's educational caliber, fostering a innovation.

Learning at Sidra Medicine is also shaped by cutting-edge pedagogy and digital technologies. High-fidelity clinical simulation is used for routine and high-stakes scenarios, promoting team-based learning and situational preparedness. This is complemented by blended learning models that include interactive e-learning modules, virtual reality simulations, gamified content, and microlearning designed to enhance retention and knowledge transfer.

Training Programs: Sidra Medicine offers one residency program and 41 fellowship programs. As of 2025, 90 residents and 102 fellows are in training across more than 20 accredited specialties, including pediatric critical care, emergency medicine, neurology, cardiology, urology, psychiatry and genetic medicine. In addition to the 192 current trainees, more than 400 residents and fellows have graduated since 2018 – many of whom now serve in specialist and leadership roles across the healthcare sector.

Each program is structured within a competency-based education framework, supported by robust onboarding, continuous skills validation, and opportunities for professional certification. Technology-enhanced learning platforms augment traditional instruction and allow for greater flexibility and learner engagement.

A total of 1,482 life support and simulation activities, involving 5,621 participants, have been conducted under this approach – supporting diverse learning styles and promoting skills development.

Education and research are fully integrated via Sidra Medicine's emphasis on clinician-led inquiry. Residents and fellows are embedded in research projects and encouraged to engage with emerging fields such as artificial intelligence in healthcare, digital diagnostics, and precision therapeutics.

Innovation in medical training at Sidra Medicine



MICROLEARNING
Bite-sized content, quizzes, and achievement tracking to boost retention

HIGH-FIDELITY CLINICAL SIMULATION
Immersive, scenario-based team training for critical care

INTERACTIVE E-LEARNING PLATFORMS
Modular, self-paced learning aligned with clinical pathways

Technology-enhanced education supports clinical excellence, teamwork, and future-readiness.

Sustainability & Resilience

Sidra Medicine exemplifies a values-driven health care model that integrates environmental stewardship, ethical medical practice, and institutional resilience in alignment with the goals of Qatar National Vision (QNV) 2030. With sustainability woven into our operations and governance, the institution is building a health care ecosystem responsive to both climate imperatives and social equity.

Our environmental, social, and governance (ESG) strategy reflects a proactive commitment to long-term impact. From integrating sustainability metrics in procurement policies to piloting resource optimization in clinical and support functions, Sidra Medicine is creating a low-carbon, high-integrity operating model.

This convergence of climate action and health equity underpins our institutional ethos. As climate-related risks and health care demands intensify across the GCC, Sidra Medicine is emerging as a regional exemplar – building adaptive capacity, advancing environmental performance, and reinforcing its mission to deliver equitable and resilient care for women and children in Qatar and beyond.

Sidra Medicine: Advancing resilience & sustainability in health care

Low-carbon operations

2024 Energy audit completed to identify emissions hotspots

2024 Smart HVAC and lighting systems deployed

Q4 2024 Target Tunnel wash system achieves 65% water and 40% energy savings

Annual impact Over 815 tonnes of CO_2 emissions avoided through laundry and RFID systems

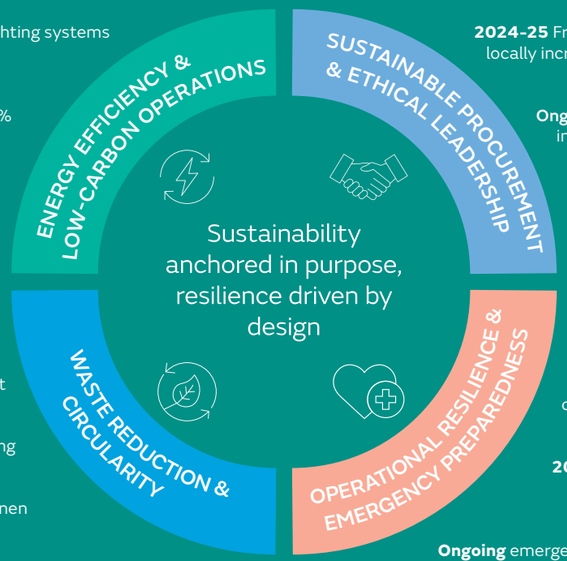
Community health equity

2024 Leanpath system launched – food waste cut by 11,087 kg/quarter

2024-25 Linen repurposing program launched

Target 50% of unusable linen repurposed by Q4 2025

Chemical use 15% reduction via automated dosing and Tersano system



Ethical leadership

ESG weighting introduced in unit procurement policy

2024-25 Fresh produce sourced locally increased from 2,055 kg to 8,212 kg

Ongoing Supplier vetting includes sustainability and ethical sourcing standards

Emergency preparedness

2024 GSAS Platinum Operations certification achieved (score: 2.07)

2024 Climate-resilient infrastructure audit completed

Ongoing emergency supply chain and infrastructure risk assessments embedded in ESG reporting

GSAS Certification & Net-Zero Ambitions

Global Sustainability Assessment System (GSAS): In 2024 Sidra Medicine enhanced its environmental standing by achieving the GSAS Operations Platinum certification, earning an overall score of 2.07 across its hospital buildings, outpatient clinics, and support facilities. This milestone affirms Sidra Medicine's progress in energy performance, waste management, and indoor environmental quality. As one of the GSAS's highest-ranking health care facilities in the GCC, Sidra Medicine demonstrates how sustainability benchmarks can be instilled into the operational fabric of complex clinical institutions.

Smart hospital systems: Automated heating, ventilation, and air conditioning, as well as high-efficiency lighting, have been deployed to minimize energy usage, while building automation continues to optimize performance. These technologies reduce operating costs and contribute to the national decarbonization agenda outlined under QNV 2030.

Broader relevance: The GSAS certification extends beyond infrastructure; it signals institutional alignment with the QNV 2030 goals of sustainable urban development and environmental management. In health care, where energy intensity is high, performance indicators affirm climate-conscious design and resilient operations can coexist with advanced clinical care. GSAS certification is a technical achievement and values statement, enhancing Sidra Medicine's standing as a climate-aware health institution.

Waste circularity: Sidra Medicine's comprehensive approach to sustainability also includes robust waste minimization protocols, with a growing emphasis on circularity. Efforts to reduce single-use plastics and manage hazardous waste are underpinned by clear vendor guidelines and clinical participation, ensuring safety and environmental integrity. These actions extend beyond isolated interventions to form part of a coordinated strategy to align operations with global climate science and national priorities.

Environmental (E)

- ~846 tonnes/year CO_2 avoided
- 65% water savings
- 40% energy savings

Social (S)

- 435 international patients (23 countries)
- 3,600+ students reached on mental health
- >85% patient satisfaction

Governance (G)

- ESG weighting in procurement active (2024)
- local sourcing up from 2,055 kg to 8,212 kg
- 100% supplier vetting

Resilience & Preparedness

- GSAS Platinum (2024)
- climate-resilient audit (2024)
- ongoing supply chain risk assessments

Responsible Operations

Sidra Medicine's operational sustainability strategy integrates responsible procurement, waste reduction, and energy efficiency – priorities that mirror the environmental and economic diversification pillars of QNV 2030.

Procurement: The Procurement and Contracts unit operates under a centralized model ensuring accountability, cost efficiency, and quality assurance. ESG criteria are carefully incorporated into vendor evaluations, ensuring suppliers are aligned with our culture of sustainability consciousness. This has enabled the hospital to prioritize local and low-impact sourcing, equating to an estimated 12.3 tonnes of CO_2 emissions avoided annually.

Waste: Our waste management protocols reflect both regulatory adherence and proactive innovation. Waste is rigorously segregated into medical and non-medical streams, with targeted reductions in hazardous and single-use materials. For instance, the hospital has implemented a digital food waste tracking system (Leanpath), which has already reduced food waste by an average of 11,087 kg per quarter. These reductions are estimated to avoid 12.3 tonnes of CO_2 emissions annually, providing both cost savings and environmental performance.

Technological upgrades and smart infrastructure: The hospital also introduced Tersano aqueous ozone cleaning systems and automated chemical dosing in its housekeeping and laundry units. These systems have reduced chemical waste by 15%, translating to nearly 2.96 tonnes of CO_2 emissions avoided by the end of 2025. The installation of a tunnel wash system has yielded 65% water savings and 40% energy savings compared to traditional systems. These improvements, combined with RFID-based linen tracking to optimize laundry cycles, are estimated to deliver over 815 tonnes of CO_2savings per year.

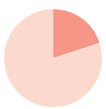
By aligning its facilities, supply chains, and resource systems with ESG best practices, Sidra Medicine is translating principles into measurable impact, placing it firmly within the implementation phase of QNV 2030's sustainable development vision.

Sustainable operations in action: Sidra Medicine's impact by the numbers

PROCUREMENT

Local fresh produce sourced:
2,053 kg → 8,213 kg

Target:
20%
local sourcing by end-2025



Estimated CO_2 savings:
12.3 tonnes/year

WASTE MANAGEMENT

Food waste reduction:
11,087
kg/quarter
(via Leanpath)

Chemical use cut by:
15%
using Tersano + dosing

ENERGY & WATER OPTIMIZATION

Tunnel wash water savings: **65%**

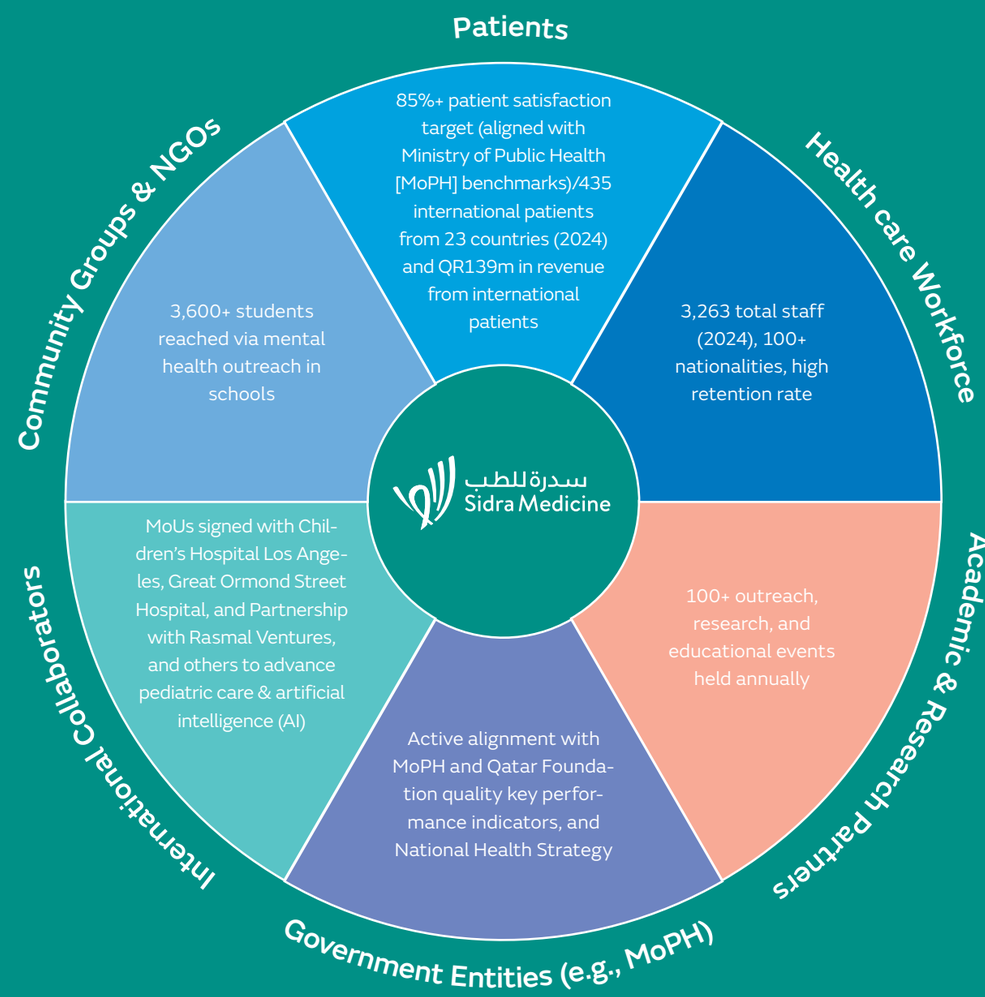
Energy savings (laundry): **40%**

Annual CO_2 savings (RFID + Tunnel Wash):
815 tonnes/year

Total combined annual CO_2 savings:
~846 tonnes per year (approximate total from energy, procurement, and waste)

Stakeholder Ecosystem

Sidra Medicine is shifting from a traditional institution-centric structure to a stakeholder-responsive ecosystem that centers around patients, health care professionals, academic collaborators, government agencies, international institutions, and community partners. This integrated model reflects our commitment to generating shared value across clinical care, research, and medical education, in alignment with QNV 2030's pillars of human development, social advancement, and health care excellence.



Patient Ecosystem

In tandem with QNV 2030's goal of achieving human and social development via health care excellence, our patient ecosystem is designed to empower individuals through inclusive engagement, personalized care pathways, and continuous feedback mechanisms. The model places patients and their families at the core of clinical operations and planning.

Collaborative care: Central to this approach are Multidisciplinary Team Clinics and daily rounds, fostering collaborative decision-making with patients, families, and providers. Care Coordinators guide patients through their journey, supported by multilingual, culturally sensitive materials that promote understanding and autonomy. For international patients, a dedicated team ensures a seamless, high-touch experience from arrival to discharge.

Feedback loops are systematically embedded throughout the patient journey. Our Patient Experience Department administers surveys grounded in frameworks developed by the US Agency for Health care Research and Quality and adapted to Qatar's MoPH standards. These instruments – deployed across inpatient, outpatient, and emergency settings – collect structured data and open-text narratives, providing a comprehensive view of patient satisfaction and experience. In 2024, this feedback led to concrete improvements in appointment scheduling, waiting times, and staff-patient communication.

Digital engagement: Beyond surveys, direct and indirect feedback is collected through multiple channels including emails, phone calls, and social media. Sidra Medicine also facilitates ongoing dialogue through our Patient and Family Advisory Councils, which span pediatric, youth, adult, and governance segments. Patient engagement is further deepened through digital health platforms such as wellness apps and secure portals that offer access to medical records, test results, and personalized health education – reinforcing Qatar's national ambitions for world-class, patient-centered care.

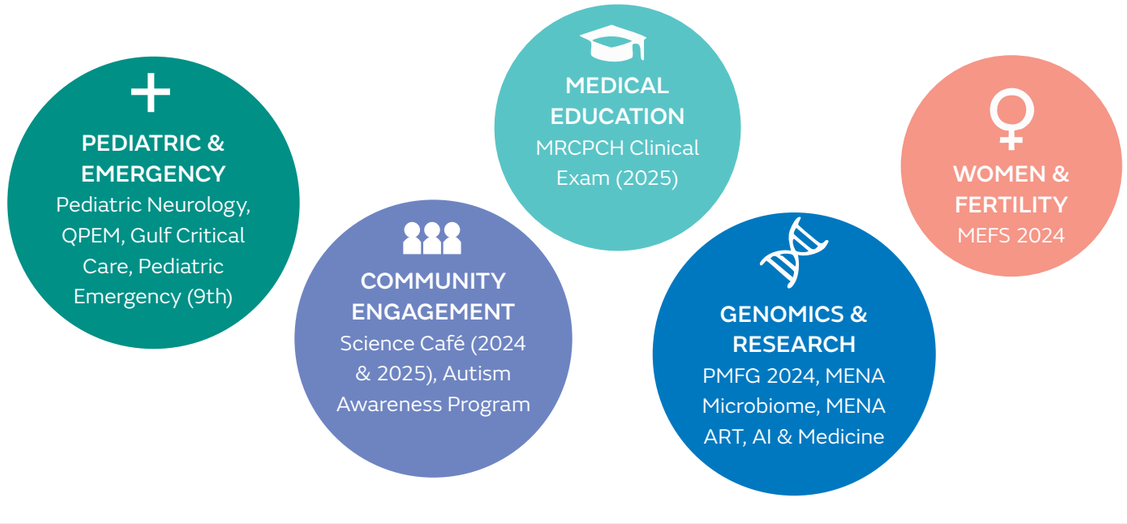
Aligning with QNV 2030's goals for inclusive, tech-enabled, and patient-driven care

ONBOARDING	DIAGNOSIS & PLANNING	ACTIVE CARE DELIVERY	DISCHARGE & TRANSITION	RECOVERY & FOLLOW-UP	LONG-TERM IMPROVEMENT LOOP
Multilingual patient registration, culturally sensitive orientation, and initial triage Care Coordinators guide families; tailored patient education materials; Autism-Friendly Hospital Initiative launched in 2025	**Collaborative treatment planning via MDT clinics and rounds** Multilingual patient registration, culturally sensitive orientation, and initial triage	**Inpatient and outpatient care for women and children; complex interventions for rare diseases** Multilingual patient registration, culturally sensitive orientation, and initial triage	**Structured handover via Mission Control; post-discharge counselling and educational support** Discharge calls from nursing staff; digital medication instructions; customer relationship management system for patient financial engagement launched	**Remote monitoring, repeat consults, and family-centered rehabilitation support** Mobile app for Patient Services launched (2025) enabling appointment tracking, follow-ups, and wellness education at home	**Service refinement based on feedback analysis and quality dashboards** Inputs from patient and family advisory councils (PFACs); SMS-based satisfaction surveys; Automated Charity Management platform used for financial access & support



Partner Engagement

Sidra Medicine's collaborative impact: Key conferences & community events (2024-25)



12+ major events hosted or co-hosted (2024-25)

Thousands of attendees from Qatar and beyond

Collaborations with HMC, Msheireb Museums, RCPCH, and more

Sidra Medicine engages a wide network of institutional, governmental, and community partners to advance Qatar's health care system in line with the collaborative and capacity-building objectives of QNV 2030. These partnerships facilitate knowledge exchange, drive innovation, and extend Sidra Medicine's social impact well beyond its campus.

Global collaborations: Core institutional alliances include those with Qatar Foundation, Weill Cornell Medicine-Qatar, Hamad Medical Corporation, and the MoPH. Internationally, Sidra Medicine has forged links with Children's Hospital Los Angeles and Great Ormond Street Hospital in London, among others. Recent memoranda of understanding have focused on joint globally leading efforts in pediatric cardiac care, rare disease management, and AI-based diagnostics – sectors of strategic importance for Qatar's long-term health agenda.

Community outreach: Sidra Medicine leverages these partnerships through a variety of dynamic engagement channels. Community health events, such as the "Innovating Care. Transforming Lives" awareness campaign, align closely with QNV 2030 strategic priorities by promoting public engagement in the advancement of women's and children's health. Annual scientific symposia, including the Precision Medicine and the Future of Genomics summit, bring together international researchers and clinicians to foster scientific exchange and inspire local talent.

In 2024 alone, we participated in or organized over 100 public health campaigns, conferences, and workshops – engaging thousands of individuals on topics ranging from mental health and fertility to genomic research. These initiatives were amplified through strategic collaborations with organizations such as Rasmal Ventures, which supported the development of AI-driven telemedicine. Together, these efforts are raising public awareness, expanding access to quality care, and positioning Sidra Medicine – and Qatar's broader health care ecosystem – as a regional and global center for medical innovation.

Workforce & Culture

Sidra Medicine's highly skilled workforce is central to our mission and a cornerstone of Qatar's broader drive to build a world-class, knowledge-based healthcare system under Qatar National Vision 2030. With more than 3,200 dedicated employees representing over 100 nationalities, we combine international expertise with a strong focus on Qatarization, ensuring that local talent is supported and fully empowered to confidently lead the future of healthcare delivery.

Professional growth: We are committed to ensuring that all employees – both clinical and non-clinical – have meaningful opportunities to learn, grow, and advance in their careers. Professional development is comprehensively supported through access to leading international e-learning platforms, structured career development pathways, and leadership training. Our annual performance review and goal-setting process provides clarity on expectations while helping staff identify future opportunities. Flagship initiatives such as the GENEStars program nurture emerging talent in research and genomics, while tailored scholarships and graduate schemes create clear routes for Qatari professionals to develop and progress.

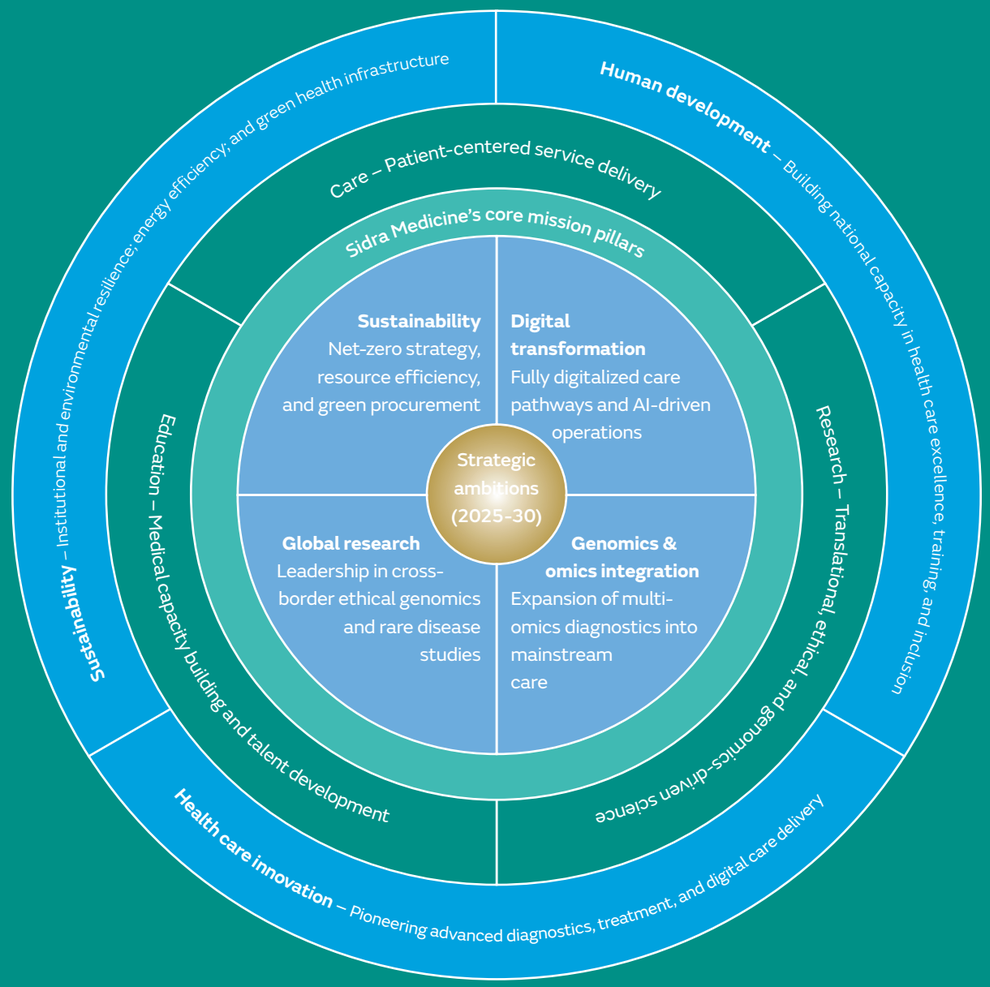
Well-being and engagement: We recognise that staff well-being is critical to delivering high quality care. Annual surveys, combined with proactive monitoring of workload and leave patterns, enable us to identify potential challenges early and address them effectively. We are enhancing employee engagement by creating a culture where concerns are acknowledged and addressed constructively, reinforcing fairness, respect, and inclusion. Regular staff forums and open dialogue with leadership ensure employees feel heard and supported, while wellness resources promote resilience in demanding clinical environments.

Organizational resilience: Our staffing strategy is designed to balance short-term operational needs with longer-term goals of sustainability and localisation. This approach enables us to attract and retain talent while reducing turnover and ensuring continuity of care. High retention rates reflect a culture of recognition, where performance is rewarded formally through appraisal systems and informally through peer acknowledgment. By cultivating adaptability, inclusivity,, and continuous learning, Sidra Medicine is building an organization that can meet the evolving healthcare needs of Qatar.



Looking Ahead

As we enter a pivotal phase of strategic transformation, our 2025–30 roadmap reflects a commitment to Qatar National Vision (QNV) 2030 by merging scientific precision with empathy. Through the convergence of genomics, artificial intelligence (AI)-enabled diagnostics, and emphatic care models, we are building a forward-looking institution rooted in clinical excellence, national relevance and global impact. The journey ahead reinforces our core mission – care, research and education – while advancing Qatar's ambition to lead in health innovation and human development.



By the numbers: 2025-30 targets

- 75% — of Sidra Medicine departments projected to integrate AI-enabled tools by 2027
- 50% — increase in international research collaborations by 2030
- 40% — growth in personalized treatment pathways projected by 2028

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Future Roadmap

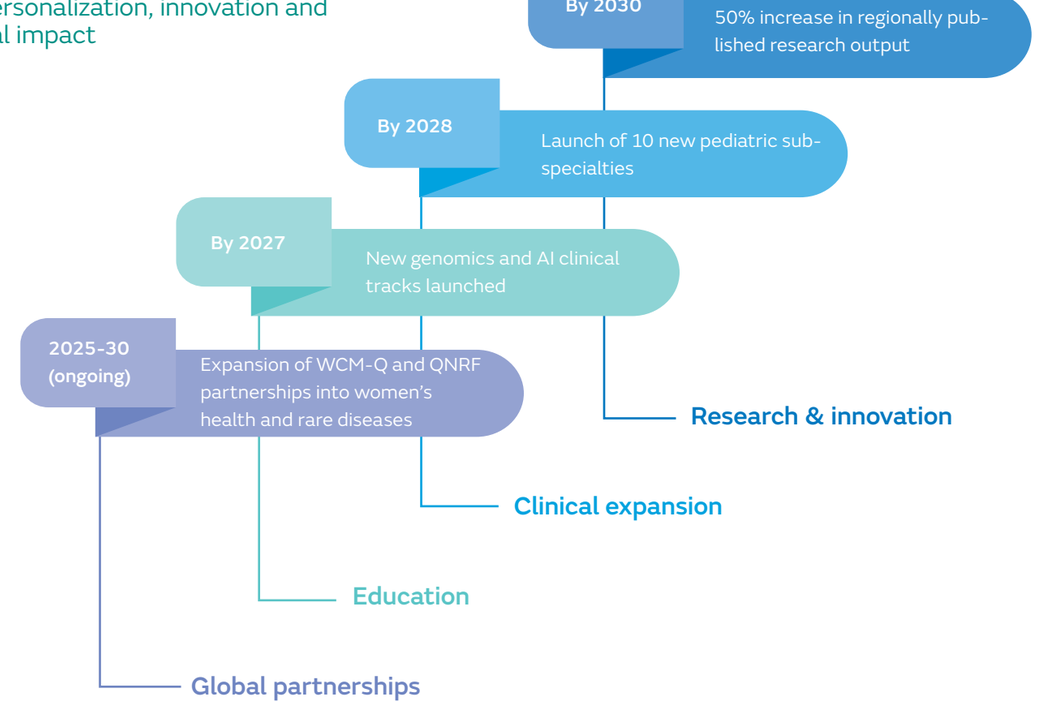
Care expansion: Sidra Medicine's 2025-30 strategy outlines a future built around clinical innovation, regional leadership and digital transformation. One of the most ambitious expansions will occur within genomics and multi-omics care. The Clinical Genomics Program is being scaled to include integrated diagnostics for early detection of women's cancers and pediatric rare diseases. This furthers a medical imperative and fortifies QNV 2030's Human Development pillar by enhancing national capacity in advanced, personalized care.

Digital pathways: We are accelerating our transition toward a fully digitalized patient journey, with over 75% of departments expected to deploy AI-enabled diagnostics and monitoring tools by 2027 as part of a broader digital transformation strategy. These developments are set to culminate in the full integration of digital care pathways by 2026, enabling more efficient, personalized, and accurate interventions while aligning with national goals of health care innovation.

Regional leadership: We are strategically positioning Sidra Medicine as the GCC's leading center for maternal-fetal medicine and the treatment of rare pediatric disorders. In addition to traditional service expansion, we are actively piloting new models of care – such as remote fetal monitoring and virtual pediatric consultations – with satisfaction rates consistently exceeding 85%. These innovations reflect our responsiveness to changing patient needs and commitment to access and quality.

Sustainability & education: We will implement a comprehensive and forward-looking net-zero strategy by 2030. In 2024 alone, the hospital successfully reduced energy intensity by 15% and water use by 18%. In parallel, simulation-based training, AI-clinical tracks, and digital anatomy labs will be strategically scaled in line with Qatar Foundation's education agenda – developing a workforce equipped for tomorrow's medicine and future health care challenges.

Toward 2030: A future defined by personalization, innovation and global impact



Global Horizons

Global momentum: Across the globe, health care systems are transitioning toward precision-first models. Powered by AI and big data, these systems increasingly leverage integrated multi-omics, digital twins and predictive analytics to tailor diagnostics, treatment, and prevention. Clustered Regularly Interspaced Short Palindromic Repeats-based therapies for sickle cell disease and scalable companion diagnostics are no longer theoretical – they represent a real and growing standard. The international precision medicine market is projected to reach $470bn–530bn by 2035, growing at approximately 16% per year. In this dynamic context, Qatar has a rare opportunity to lead in equitable, tech-driven care delivery.

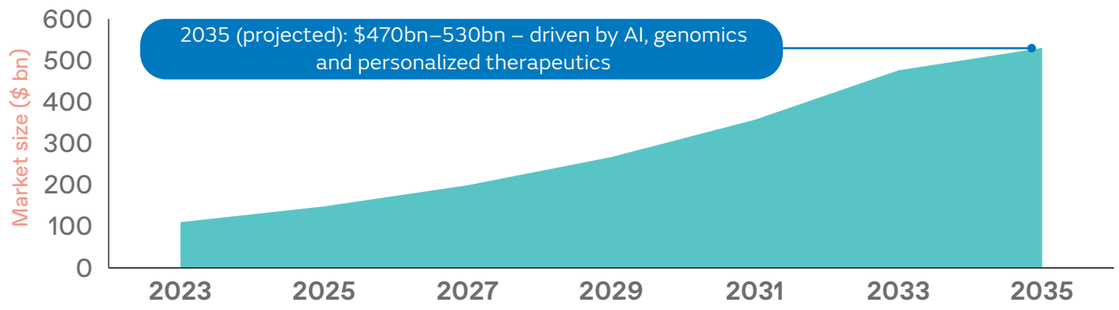
Strategic positioning: Sidra Medicine stands at the forefront of this transformation in the Gulf region by combining scientific rigor with personalized patient pathways. Our multi-disciplinary omics teams are advancing genomic science and translating it into individualized care across pediatrics, oncology and maternal health. For example, pharmacogenomic profiling is now guiding drug selection in pediatric oncology, helping physicians identify optimal therapies based on a child's genetic response. In women's health, AI-enhanced prenatal genomics are being used to identify maternal risk profiles and enable early interventions in high-risk pregnancies. As of 2024 we have sequenced over 15,000 whole genomes, with clinical integration expanding rapidly. These personalized approaches reflect a systemic move away from one-size-fits-all care – aligning completely with QNV 2030's Human Development targets of enhancing health care quality and responsiveness.

Empathic care: Personalization at Sidra Medicine is not limited to molecular data – it is deeply rooted in empathy and cultural context. Ethical genomics practices, such as family-centered consent protocols and culturally appropriate patient communication, ensure that care is both inclusive and respectful. Clinically, Sidra Medicine is pioneering epigenetic-informed pathways that adjust early-life interventions based on markers of neurodevelopmental or metabolic risk, offering children customized care trajectories. In rare pediatric disorders, integrative case reviews unite geneticists, counselors and clinical specialists to co-design treatment plans that reflect both the genetic profile and patient preferences and psychosocial needs. This holistic model ensures that precision at Sidra Medicine is always personalized and human-centered.

Global collaborations: Sidra Medicine's impact extends beyond national borders. We are a vital partner in the Qatar Genome Program, targeting approximately 350,000 sequenced genomes for system-wide pharmacogenomics. Its 2025 publication in Nature Genetics marked the first long-read de novo genome assembly for Middle Eastern families, a milestone in equitable genomics. Through platforms such as the Qatar Research Development and Innovation Council, Sidra Medicine is championing international-local innovation – transforming lives through science, partnership, and empathy.

Global precision medicine market growth (2023–35)

Sidra Medicine is well positioned to capitalize on the global expansion of precision medicine



Final Reflections & Call to Action

Women's Services: Sidra Medicine expanded culturally sensitive maternal care with dedicated perinatal mental health screening and AI-based prenatal risk tools. Collaborative research with Qatar National Research Fund is improving management of gestational diabetes and preterm birth, reinforcing women's health as a national priority.

Pediatrics: We advanced rare disease care with multi-omics diagnostics and personalized therapies across oncology and neurodevelopment. With over 15,000 pediatric genomes sequenced in 2024, we aim for full genomic integration across all tertiary pediatric care by 2028.

Stakeholder engagement: Sidra Medicine deepened collaborations with regional hospitals and global academic institutions, while also contributing to national policy on digital health and rare diseases. Public engagement campaigns on maternal mental health and pediatric genomics broadened our role in inclusive health discourse.

Research & innovation: Research and clinical units were fully integrated to advance bedside application of omics-based insights. With 313 publications – of which 45% were internationally co-authored – Sidra Medicine strengthened its standing as a regional leader in ethical, translational research aligned with national research, development, and innovation goals.

Performance: Clinical quality improved in 11 of 14 tracked indicators. AI-assisted dashboards enhanced operational oversight, and early pilots of digital patient pathways achieved more than 90% satisfaction – demonstrating measurable progress toward national health system modernization.

Medical education & training: In partnership with Qatar Foundation, Sidra Medicine launched genomics and AI tracks in clinical training. Simulation-based modules and digital pathology labs were introduced, ensuring alignment with evolving care models and future-proofing Qatar's health care workforce.

Governance & oversight: Governance reforms supported faster ethical reviews and digital risk mitigation. Sidra Medicine also developed AI governance frameworks and updated data security protocols to ensure regulatory alignment and institutional resilience.

Sustainability: Sidra Medicine reduced energy and water usage by 15% and 18%, respectively. A net-zero roadmap is under way, featuring green procurement and waste circularity. The Green Hospital strategy was recognized regionally, with new KPIs launching in 2025.

Stakeholder call to action: Partner with Sidra Medicine to shape the future of personalized care – where ethical innovation, research excellence, and national purpose converge.



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