Public Health Impact through Al (PhixAi)

Innovation Compendium 2024



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» Foreword

As the world faces growing public health challenges, the role of artificial intelligence (AI) in transforming health care has become undeniable. I am excited to introduce the Public Health Impact Through Artificial Intelligence (PhixAi) initiative, launched by PATH India in March 2024. PhixAi is a pioneering effort to harness AI to address critical health needs in low- and middle-income countries (LMICs), where the potential for impact is immense.

At its core, PhixAi champions South-South collaboration, recognizing that solutions for LMICs must be created from within these regions. Too often, global health innovations are shaped by perspectives that overlook the unique realities of resource-limited settings. PhixAi shifts this focus, driving innovations that are grounded in local contexts, fostering sustainable solutions for pressing health issues.

Through key initiatives such as Tech Challenge, HealthOn, and the Global Virtual Pitch, PhixAi has uncovered AI-driven solutions in areas ranging from non-communicable diseases to maternal and child health. These innovations, emerging from the Global South, reflect the power of local expertise to tackle local problems and demonstrate the value of collaboration across similar contexts.

As we look ahead, PhixAi is committed to turning these innovations into action, ensuring AI solutions are not only technologically sound but also accessible, relevant, and sustainable for the communities they aim to serve. By fostering partnerships and supporting implementation, we seek to create a future where AI empowers health systems and advances health equity.

This report highlights the transformative potential of AI in public health and invites stakeholders across the global health community to join us in this critical mission. Together, we can accelerate progress toward universal health coverage and a more equitable world.

Deesay

Neeraj Jain Country Director India Director Growth Operations, Asia, Middle East & Europe (AMEE) PATH

» Acknowledgement

The success of the Public Health Impact Through Artificial Intelligence (PhixAi) initiative reflects the collective effort and shared vision of many dedicated individuals and organizations. I am truly grateful to everyone who played a part in this groundbreaking initiative.

First, I want to acknowledge our partners, whose expertise and support have been instrumental in driving PhixAi forward. My deepest thanks go to The Commonwealth of Nations, the Organisation for Economic Co-operation and Development (OECD), the Rockefeller Foundation, the Department of Emerging Technologies, Government of Telangana, the Stanford Center for Innovation in Global Health, Stanford Byers Center for Biodesign, A2i (Aspire to Innovate, Government of Bangladesh), Elsevier, the University of Colombo, Sri Lanka, AI & Robotics Technology Park (ARTPARK), People+AI, Digital Square at PATH, and Yo.DH at PATH. Their unwavering commitment to advancing AI in public health and addressing the unique needs of low- and middle-income countries has been invaluable.

I am also deeply appreciative of the participants in Tech Challenge and HealthOn. Your innovative Aldriven solutions and dedication to improving health care in resource-limited settings inspire us all. You exemplify the immense potential of AI in transforming public health.

To the esteemed members of our jury, I express my sincere gratitude. Your expertise and thoughtful evaluations were crucial in identifying innovations with the greatest potential for impact. Your contributions were vital to the success of this initiative.

I am immensely proud of the PhixAi team at PATH. Your creativity, hard work, and passion have been the driving force behind this initiative. I cannot thank you enough for your dedication.

Lastly, I want to express my gratitude to the global health community for your ongoing support and engagement. Your insights and collaboration continue to shape our efforts to leverage AI for universal health coverage and equity.

Together, we are forging a path toward a more equitable and efficient global health landscape driven by localized AI solutions.

Thank you for being part of this important mission.

Sameer Kanwar Director, Digital Health India and South Asia PATH

» Executive summary



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To map and drive AI for public health innovations, PhixAi launched two flagship initiatives: Tech Challenge and HealthOn. These challenges aimed to identify and highlight innovations addressing key public health gaps, drawing on local expertise and diverse perspectives across a wide range of viewpoints, experiences, and expertise from participants.

The shortlisted innovations address key public health areas, including noncommunicable diseases, reproductive, maternal, neonatal, and child health (RMNCH), infectious diseases, climate health, and health systems strengthening. The applicability of artificial intelligence (AI) spans across several areas, to include screening, diagnostic assistance, and treatment support.

Both challenges culminated in the Global Virtual Pitch 2024 (GVP24), held from August 12-16, 2024, where 62 innovative Al solutions in health care were showcased. The innovations were evaluated by a panel of experts representing governments, donor agencies, international development organizations, technology partners, and academic institutions. A robust assessment of the innovations was conducted based on 11 parameters for Tech Challenge and 6 parameters for HealthOn, providing valuable insights to help advance the innovations toward real-world application in resource-constrained settings. Based on the evaluation 10 innovations from Tech Challenge and 5 from HealthOn were selected.

Drawn from the extensive showcase of innovations from Tech Challenge and HealthOn, the AI for public health innovations compendium highlights Al-driven solutions that enhance health outcomes. It offers stakeholderspolicymakers, donors, development agencies, innovators, and health care providers-a structured overview of the AI innovation landscape in public health, helping them asses, compare, and adopt relevant technologies by offering insights on scalability, regulatory and technical milestones, and impact. The compendium promotes informed decision-making and collaboration, driving the responsible use of AI and advance global health equity.

The PhixAi initiative demonstrates the potential of AI in advancing the public health outcomes in low- and middleincome countries (LMICs). By fostering innovation, collaboration, and strategic implementation, PhixAi aims to pave the way for a more equitable and efficient global health landscape, driven by localized and fit-for-purpose AI solutions.



PhixAi at PATH

Building the AI for Public Health Ecosystem

Accelerating Innovation through South-South Collaboration

Introduction

The artificial intelligence (AI) health innovation landscape is predominantly shaped by perspectives from the Global North, often resulting in solutions that do not align well with resource-limited settings. The Global South countries, despite having abundant talent and facing unique health challenges, are frequently isolated from each other. This limits the cross-pollination of ideas and resources, perpetuates dependency on external technologies, and hinders the development of a robust, contextappropriate AI health ecosystem for low- and middleincome countries (LMICs). Through South-South collaboration, there is a need to unite representatives from governments, donor agencies, international development organizations, innovators, technology partners, and communities to tackle real-world health care challenges.

Leveraging AI to enhance public health services in resource-constrained settings can support coordinated efforts to build a comprehensive AI health ecosystem across Global South nations. The Public Health Impact Through Artificial Intelligence (PhixAi) program is dedicated to strengthening these collaborations and innovations by exploring how AI for public health innovations can effectively be implemented and scaled to address public health issues and ultimately achieve universal health coverage (UHC) and health equity.

HEALTH CARE TREATMENT MEDICAL CARE INVENTION DIAGNOSE DISCOVERY RESEARCH INNOVATION TECHNOLOGY IDEA SOLUTION INSPRIRATION

Public Health Impact through Al

An initiative at PATH

Vision

The program aims to accelerate the scale of innovations at the intersection of Al and public health to sustainably achieve UHC and health equity.

Objectives

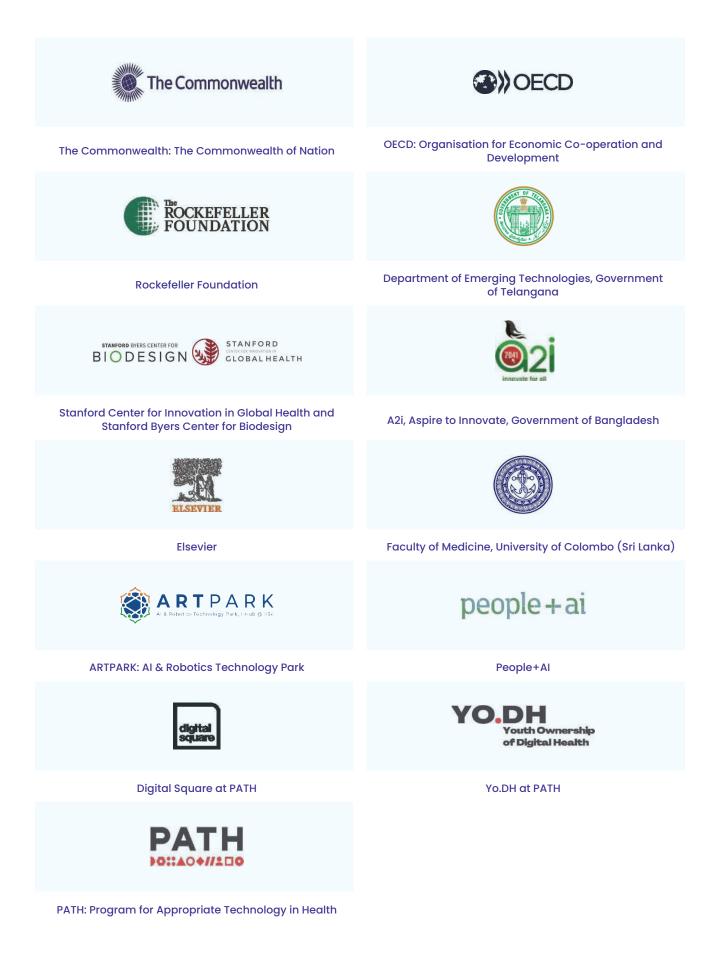


Harnessing AI to amplify the delivery of public health services.

Promoting equity and inclusion across Al solution development and deployment as part of the health systems.

Partners

The selected partners were chosen for their commitment to advancing AI in public health and tackling challenges faced by LMICs. With their expertise in navigating regulatory, sustainability, and scalability barriers, these partners are essential collaborators in promoting equitable health outcomes globally. These partners encompass government agencies, international organizations, development agencies, technology firms, and academic institutions. See Table 1.1 Table 1.1. Partners for PhixAi



» Driving AI for public health innovation: PhixAi Tech Challenge and HealthOn

2.1. Overview

Al innovation encompasses the development of new knowledge, tools, and ideas through simulating human intelligence in machines. This includes machine learning, deep learning, neural networks, and reinforcement learning. By enabling machines to think and act more like humans, Al innovation plays a vital role in addressing healthcare challenges and uncovering fresh opportunities.¹²

Health care systems around the world are grappling with significant challenges in achieving the 'quadruple aim': improving population health, enhancing patient experiences, promoting caregiver well-being, and reducing costs.^{34,5} The integration of technology and AI presents a promising opportunity to address these issues, with AI advancing health care delivery, particularly in resource-limited settings.

The growing availability of multimodal data—such as genomics, demographic, and clinical data—combined with advancements in mobile technology and the Internet of Things (IoT), signals a crucial convergence of health care and technology. This intersection is poised to fundamentally transform health care delivery models through AI-enhanced systems.⁶ AI plays a critical role in improving disease surveillance, outbreak prediction, diagnostics, and treatment decisions, all the while addressing gaps in accessibility, efficiency, and affordability. In low- and middle-income countries (LMICs), where health care systems face high demand and limited resources, AI optimizes resources, delivers precision care, and strengthens health systems. This leads to improved disease detection and public health monitoring, especially in areas with health care workforce shortages.

As Al's impact on health care grows, it becomes essential to map and showcase innovations addressing key public health challenges. In this context, PhixAi launched two initiatives— Tech Challenge and HealthOn—to identify transformative solutions in public health. These initiatives underscore the vital role of Al innovations in addressing key health challenges, setting the stage for a detailed exploration of innovations and their impacts in the following sections of this report.

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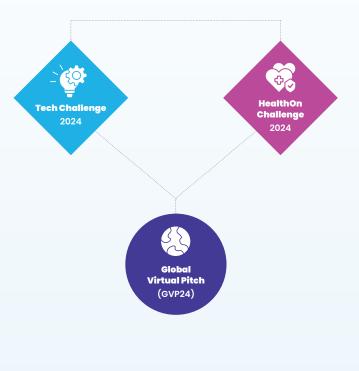
2.2. Tech Challenge and HealthOn

In early 2024, PhixAi launched two flagship initiatives to identify and promote Al-driven health solutions: Tech Challenge for mature innovations and HealthOn for youth- and student-led ideas. These challenges aimed to spotlight innovations that address key public health and technological gaps, particularly in low-resource settings.

From over 100 registered applications, 41 mature innovations were shortlisted in Tech Challenge, while HealthOn highlighted 21 early-stage solutions. These innovations came from Asia, the Americas, Africa, and Europe, targeting critical areas such as non-communicable diseases (NCDs), reproductive, maternal, newborn, and child health, infectious diseases, climate and health, and health systems strengthening. The AI solutions spanned functional areas such as screening, diagnostic support, treatment assistance, workflow efficiency, disease surveillance, and outbreak prediction. A key outcome of Tech Challenge was showcasing innovations at high technology readiness levels (TRL 8-9), indicating that many solutions were mature, validated, and ready for deployment. Special attention was placed on the operational scalability, regulatory compliance, and the feasibility of implementing these technologies in resource-constrained settings.

Both Tech-Challenge and HealthOn culminated in the Global Virtual Pitch 2024 (GVP24), where the shortlisted innovations were showcased. See Figure 2.1.

Figure 2.1. PhixAi and its initiatives





Global Virtual Pitch 2024

The culmination of both challenges was the Global Virtual Pitch 2024 (GVP24), held from August 12-16, 2024. This event serves as a global platform for innovators to present their Al-driven public health solutions to experts, funders, and strategic stakeholders. In total, 62 innovations were showcased—41 from Tech Challenge and 21 from HealthOn.

The GVP24 had global representation, with strong participation from India, Africa, the USA, and Europe. A jury of 19 experts from government, international development agencies, academia, non-profits, and the private sector evaluated the innovations on parameters such as scalability, innovation, and relevance to LMICs. The event connected participants with global thought leaders, potential investors, and key partners, paving the way for impactful collaborations and deployments across public health ecosystems. See Table 2.1.

Table 2.1. Jury members for Tech Challenge and HealthOn



Dr. Harpreet Singh Indian Council of Medical Research (ICMR)



Rama Devi Lanka Government of Telangana



Raghu Dharmaraju ARTPARK

Rohit Satish

ARTPARK



Kachina Chawla USAID



Dr Bhaskar Rajakumar ARTPARK



Roshan Nair USAID



Tanuj Bhojwani People + Al



Dr. Radika Kumar The Commonwealth



Tanvi Lall People + Al



Dr. Matthew Arentz FIND



Lakshmi Sethuraman Sattva Consulting



Anurag Mairal Stanford University



Prof. Mona Duggal Post Graduate Institute of Medical Education & Research, Chandigarh (PGIMER)



Prof. Anurag Agrawal Ashoka University



Prof. Sarang Deo Indian School of Business



Dr. Priyanka Bajaj PATH



Dr. Kumar Dron Srivastava PATH



Mayank Sharma PATH



2.4. Evaluation and innovation performance score overview

The evaluation process for both **Tech Challenge** and **HealthOn** was rigorous. Jury members assessed each innovation based on critical factors such as **problem identification**, **innovation novelty**, **technological readiness**, **public health impact**, **and scalability**. This comprehensive approach ensured that the most promising Al-driven health care innovations were identified, offering valuable feedback to help advance these solutions towards real-world application and significant impact on global health systems.

The key evaluation aspects are as follows:



Tech Challenge evaluation involved the following:

- Eleven parameters: These included problem identification, innovativeness, publication, technology readiness level, operational scalability/simplicity to scale, validation, regulatory compliance, useability and acceptability, go-to-market strategies, team competence, and ability to answer questions raised.
- Emphasis on real-world deployment in resource-constrained settings and regulatory readiness.

HealthOn evaluation involved the following:

- **Six parameters:** These included problem identification, solution, technological approach, potential impact, development plan, and long-term viability.
- Emphasis on how solutions address public health problems and the sustainability of the innovation.

The detailed evaluation methodology is attached in Annexure 1.

2.5. Factsheets

The Tech Challenge and HealthOn fact sheets provide a summary of the diverse contributions and global engagement. It spotlights regional representation, showcased across various public health thematic categories, their technology readiness levels (TRLs), regulatory compliances, the end users they serve, etc. See Table 4.2.





EvalynDx by Evalyn Healthcare (India):

Al-powered rapid diagnostic platform for mass screening

AiSteth by AI Health Highway (India): Al-enabled smart stethoscope for cardio-respiratory disorders

> VinCense by MedloTek Health Systems (India): IoT health tech platform for non-invasive hemoglobin monitoring

> > **EzeCheck by EzeRx (India):** Non-invasive hemoglobinometer

> > > **Qritive (India):** Al modules for cancer detection and grading

TOP 10 PhixAi Tech Challenge innovations

qXR by Qure AI (India): Al-powered integrated respiratory screening pathway

DeepEcho (Morocco): Al-driven prenatal diagnostics using ultrasound

Mocxa Health (India): Home-based video-EEG solution with AI-based seizure tagging

Onward Assist (India): Al for improving cancer biopsy diagnostic reporting

Moskeet by TrakitNow (USA): Al and IoT platform for mosquito-borne disease prevention

Top 5 HealthOn innovations

- Erudita (India): mHealth platform for sickle cell disease patients
- MADAD (India): AI for student mental health monitoring
- IHME-Verbal-Autopsy-LLM (USA): Integrating large language models into verbal autopsy workflows
- VaxiCool Innovators (India): Al-enhanced sustainable cold chain solutions for vaccines in India
- **GEORISK (India):** Mapping access to mother and child health services using a geographical risk stratification model.

» Conclusion and Way forward

This compendium offers a comprehensive overview of AI's transformative potential in public health, enabling stakeholders to make informed decisions, foster partnerships, and promote the responsible integration of AI technologies to advance global health equity.

Policymakers can use this resource to evaluate AI solutions to address regional health challenges and guide their integration into health care systems. Development partners will benefit from identifying impactful AI innovations that align with their funding goals and will help steer strategic investments in public health Al solutions. Innovators can benchmark their technologies against peers, explore collaboration opportunities, and scale their innovations further. Implementation partners can draw on the insights to shape technical assistance programs, support South-South collaboration, and facilitate large-scale deployment of Al solutions. Lastly, health care providers can explore Al tools that enhance diagnostics, treatment planning, and patient monitoring, while also assessing their usability and operational fit for health care settings.



3.1 A comprehensive strategy for PhixAi going forward



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Encourage knowledge exchange and dissemination through an Al-health learning hub and best practices repository PhixAi intends to establish a discovery platform to act as a central repository for AI-health innovations and best practices. This hub will enable innovators, governments, public health professionals, and development agencies to access scalable solutions, exchange knowledge, and collaborate on initiatives.



PhixAi is committed to ensuring that Al innovations it supports are inclusive and equitable. This involves co-designing implementation strategies with local communities to ensure cultural relevance and accessibility, particularly in resourceconstrained environments. By actively engaging marginalized groups and underrepresented innovators in the Al-health ecosystem, PhixAi aims to integrate their perspectives throughout the implementation processes, fostering a more inclusive ecosystem.

Only through collaboration can PhixAi continue to accelerate AI-driven public health innovation, effectively overcome scaling barriers, and foster an ecosystem that promotes health equity and sustainable outcomes across LMICs.

Annexures

» Annexure 1: Scoring methodology

A.1.1. Tech Challenge evaluation process

The Tech Challenge comprised **11 parameters**, each carrying a maximum of **5 marks**, resulting in a total of **55 marks** per jury member. Each innovation was evaluated by **three jury members** either during the Global Virtual Pitch 2024 (GVP24) event or based on recorded videos and presentations submitted by the innovators. The scoring was conducted based on the steps mentioned below.

A1.1.1 Parameters of evaluation

The **Tech Challenge** employed an in-depth evaluation across **11 parameters**, providing a holistic assessment of each innovation's current readiness and future development potential. Each parameter was scored on a scale of 1 to 5, with a maximum of 5 marks assigned per category. The parameters are given in Table A.1.

S. No.	Parameter	Explanation
1.	Problem identification	Has a specific problem or need been clearly identified?How relevant is the solution to the identified problem?
2.	Innovativeness	 Will the innovation lead to disruptive and nonlinear impact? What is the novelty and inventive factor in the technology solution? How new and creative is it in terms of solving the gap/health systems problem it intends to cater to?
3.	Publications	• Is the novelty factor of the innovation supported by publications, patents, and reports?
4.	Technology readiness level (TRL)	 Product innovation (product stage): At what stage is the product? We are looking for TRL 8 or plus-level innovative solutions applied in their final form and operation. Process innovation: What is the maturity level of the innovation?
5.	Validation	 Has the technology been validated? What evidence has been generated in support of the innovation?
6.	Operational scalability/ simplicity to scale	 The technology will be evaluated on its performance data from real-world deployments (pilot or large scale). The sophistication of clinical skill/technical deployment requirements for operating the solution. The feasibility of deployment in the region of interest of interest to be considered.
7.	Regulatory compliances and certifications	Are regulatory compliances and certifications obtained?
8.	Usability and acceptability	• The technology will be evaluated on end-user and health care acceptance and programmatic fit in the region of interest.

Table A.1: Parameter for used for Tech Challenge

S. No.	Parameter	Explanation
9.	Introduction roadmap for the target region of interest/roadmap ahead	 Assessment of the market entry plan and key strategic ideas on introduction in the region of interest, including plans to navigate the necessary regulatory approvals. Does the business have a clear vision of how they want to go forward?
10.	Team	 Does the business have a competent leadership team to efficiently execute its business plan? How likely is the team to stick to the mission? What are the core team capabilities, strengths, and complementarities?
11.	Jury Q&A	• The team's ability to address questions raised by the jury.

This evaluation approach allowed for a comprehensive understanding of each innovation's readiness for widespread adoption and its challenges in future development.

A.1.2. Scoring process

- Initial evaluation: Each jury member independently evaluated the innovations against the 11 parameters during the GVP24 or based on the recorded presentations. Each parameter was scored on a scale of 0 to 5, where:
 - 5 = Excellent
 - 4 = Very Good
 - 3 = Good
 - 2 = Fair
 - 1 = Poor
 - 0 = Not addressed
- Aggregate score calculation: Each jury member's total score for innovation was calculated by summing their marks across all 11 parameters, with a maximum of 55 marks per jury member.
- Gross total score: The scores from all three jury members were added to generate the gross total score out of a maximum total of 165 (3 jury members per evaluation) for each innovation.

This was calculated as follows:

Gross total score = Aggregate score of Jury 1 + Aggregate score of Jury 2 + Aggregate score of Jury 3

A.1.3. Conversion to percentage

To standardize the results and facilitate comparison across all innovations, the gross total score was converted into a percentage. The formula used for this conversion was as follows:

Innovation performance score = (Gross total score) × 100/165

The innovation performance score was then used to rank the innovations based on their overall evaluation.

A.1.4. HealthOn evaluation process

The HealthOn challenge utilized a slightly different framework, consisting of **six parameters**, each carrying a maximum of **5 marks**, leading to a total of **30 marks** per jury member. Similar to the Tech Challenge, **three jury members** evaluated each innovation, and the scoring was carried out as follows (see Table A.2):



Table A.2. Parameters of evaluation

S. No.	Parameter	Explanation
1	Problem identification	 Is the public health challenge clearly defined and well-understood? Does the challenge address a critical public health issue with a significant impact on communities? Is the target population for the solution clearly identified?
2	Solution	 Does the solution propose a new and innovative approach using Al? Does the solution target the problem statement? How well does the proposed solution align with the needs and dynamics of the healthcare industry?
3	Technological approach	 Are the chosen AI techniques well-suited to address the identified problem? Does the solution consider data availability, quality, and ethical use? How is the flow of data used?
4	Potential impact	 Is the potential impact of the solution significant? Does the solution impact the problem and target population effectively? Are metrics used to showcase the impact ideal and relevant?
5	Development plan	 Is the development plan realistic and achievable? Does the development plan include a strategy for evaluating the solution's effectiveness at different stages? Does the plan include a clear timeline?
6	Sustainability and viability	 Is the Idea sustainable and cost-effective in the long term? Can the solution be adapted to different contexts (i.e., resource-constrained settings)? Has the team mentioned a realistic scaling strategy?

A.1.5. Scoring process

- **Initial evaluation**: Similar to the Tech Challenge, each jury member scored the HealthOn innovations based on six parameters, scoring each on a scale of 0 to 5. The jury members evaluated the innovations based on either live presentations or recorded videos and documents submitted by the innovators.
- **Aggregate score calculation**: Each jury member's total score was calculated by summing their marks across all 6 parameters, with a maximum score of 30 marks per jury member.
- **Gross total score**: The gross total score for each innovation was obtained by adding the scores provided by all three jury members out of a maximum score of 90, calculated as:

Gross total score = Aggregate score of Jury 1 + Aggregate score of Jury 2 + Aggregate score of Jury 3

A.1.6. Conversion to percentage

To standardize the results, the gross total score was converted into a percentage using the following formula:

Innovation performance score = (Gross total score) × 100/90

The **innovation performance score** was used to determine the ranking of innovations within the HealthOn challenge.

Annexure 2: AI for public health innovations showcase

Tech Challenge Innovation Showcase

>> Evalyn Healthcare Solutions Pvt. Ltd

Intelligent Analyzer eXpress (iaX) – EvalynDx: Mass screening and disease detection platform

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Technology has been applied in its final form, is operational, and is in the market.



Innovation

Score

Performance



Categorization

#General pathology #Screening and diagnostic assistance device #Deep learning enabled image analysis

Problem statement

Inefficiencies in mass testing, LFA diagnostic accuracy, and data management in real-time.

Innovation description and technological approach

- a. Evalyn unites iaX, an AI-based diagnostic reader, with the EvalynDx platform, built on AWS services with highly scalable backend technology, ensuring rapid, reliable disease screening. This reader swiftly deciphers results from diverse rapid diagnostic tests (RDTs), including immunofluorescence assay (IFA).
- b. The iaX integrates a camera and a multi-color LED with diffusers and computes analytics using a powerful embedded computing board with an Intel Core CPU and GPU to process massive test data in real-time. Onboarded with over 100 assays (LFA) profiles can be securely processed and stored on AWS, interfacing seamlessly with HMIS/LIMS platforms using the OpenBio API.
- c. Designed for affordability and accessibility, iaX connects through Wi-Fi or 5G within secure networks. It offers high-output and precise readings of various lateral flow tests, empowering medical professionals and patients with instantaneous, encrypted diagnostic data.

>> Scale

- a. Pilot deployments in Maharashtra.
 - i. Across tribal regions of Raigad district, in collaboration with Ashwini Hospital, involved in screening 60-80 people.
 - ii. Garade village, Pune district, screening 200 people.

Name of founder/CEO and location

Sumit Uttam Jagdale (CEO) and Harish Jagdale (COO) Mumbai, Maharashtra, India

>> Regulatory compliances

- a. Brazilian Health Regulatory Agency (Anvisa)
- b. EU Medical Device Regulation (MDR) and In Vitro Diagnostic Regulation (IVDR)
- c. Bureau of Indian Standards (BIS)
- d. Government of India Ayushman Bharat Digital Mission (ABDM) compliant

>> Ai Health Highway India Pvt Ltd

AiSteth – Al-enabled smart stethoscope to screen, detect and predict cardio-respiratory disorders. detection platform



Technology has been applied in its final form, is operational, and is in the market.





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Categorization #Cardiovascular and Pulmonary diseases

#Screening device

#Combination of a convolutional neural network (CNN) and a long short-term memory (LSTM) networkenabled sound analysis

Problem statement

India has approximately 5,500 cardiologists for a population of 1.4 billion. Echocardiographs, the gold standard for diagnosing valvular heart disorders, are time-consuming and require trained specialists, making access difficult for those in rural and semi-urban areas.

Innovation description and technological approach

- a. AsMAP AiSteth Murmur Analysis Platform helps health care professionals detect Murmur for screening and early detection of valvular heart disorders at primary health care centers. AiSteth is an Al-enabled smart stethoscope with three key components: (i) Device: Records 30-60 seconds of heart/lung sounds and streams via Bluetooth to a smartphone; (ii) Data: Mobile application on Android and iOS that converts the acoustics into visual signature patterns for smart interpretation; (iii) Intelligence: Al/machine learning models that analyze the heart/lung sound signature patterns and help physicians detect anomalies.
- b. General practitioners' murmur detection using traditional stethoscopes has an accuracy of 50-60% due to their lack of experience, surrounding noise environments, and subjectivity. AsMAP%AiSteth Murmur Analysis algorithm%has an end-to-end model architecture, combining a convolutional neural network (CNN) and a long short-term memory (LSTM) network.

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>> Scale

- a. 12+ states, 34,000+ patients screened.
 - Adult valvular heart disorder screening as part of Smart primary health care centers initiative by the Government of Maharashtra PATH: A total of 4,810 patients have been screened across 19 primary health care centers by 40+ doctors and auxiliary nurse midwives.
 - ii. Pediatric/school health screening for congenital heart disorders: Screened more than 1791+ school children

Name of founder/CEO and location

>> Regulatory compliances

- Central Drugs Standard Control Organization
 Manufacturing License (CDSCO) Manufacturing
 License Class A & Test License for Class B
- b. ISO13485
- c. Design for manufacturing (DFM) and design for assembly (DFA) analysis
- d. Passed the electromagnetic compatibility and International Electrotechnical Commission EMC/IEC 60601-2 tests in a National Accreditation Board for Testing and Calibration Laboratories (NABL) certified lab

Dr. (Maj.) Satish Jeevannavar, MBBS, Exec MBA, IIMB/Founder and CEO Bangalore, Karnataka, India

>> MedIoTek Health Systems Private Limited

VinCense mHealth platform



8

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Technology has been applied in its final form, is operational, and is in the market.





Categorization

#Non-communicable diseases #Preventive and wellness measures #Vitals and Hb monitoring

Problem statement

VinCense aims to address the pressing need for accessible and non-invasive health care solutions, particularly within public health services. The focus is on early detection and management of non-communicable diseases like hypertension and anemia.

Innovation description and technological approach

- a. VinCense is the internet of things (IoT), mobility, cloud, analytics, and AI/machine learning health tech platform built around India's first clinical-grade wearable that measures pulse rate, oxygen saturation, respiratory rate, and skin temperature. Stakeholders can access real-time data via a user-centric interface.
- b. The innovative machine learning algorithm represents a transformative leap in health care technology. It processes photoplethysmography (PPG) signals captured by the wearable device, offering accurate blood pressure (BP) measurements in real time.
- c. The company has also developed an algorithm to measure hemoglobin noninvasively from the PPG signal and stratify whether a person is anemic, which is particularly helpful for antenatal care. This facilitates hyper-local, personalized health care delivery, optimizing clinical outcomes.

>> Scale

a. Deployment in rural areas of India, reaching 500+ customers

Regulatory compliances

a. ISO 13485

Name of founder/CEO and location

Sharmila Devadoss, MD Chennai, India

>> EzeRx

EzeCheck: India's first ICMR-RMRCBB (Indian Council of Medical Research-Regional Medical Research Centre, Bhubaneswar) validated non-invasive hemoglobin screening device



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Technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score

88

#Haemotological disorder #Diagnostic assistance

Problem statement

Categorization

Traditional methods of hemoglobin-level monitoring often involve invasive blood tests, which can be painful, time-consuming, and require professional assistance, posing barriers to regular monitoring, particularly in resource-constrained settings. Additionally, these methods contribute to medical wastage and increased healthcare costs.

Innovation description and technological approach

- a. EzeCheck, the Al-driven solution, addresses the identified problem by providing a noninvasive, pain-free, and affordable method for monitoring hemoglobin levels. Utilizing advanced algorithms, the device accurately measures hemoglobin levels within minutes, eliminating the need for invasive blood tests and professional assistance. This accessibility empowers individuals to proactively manage their health, especially in underserved communities or regions with limited resources. Additionally, the solution's portability and ease of use facilitate widespread adoption, contributing to improved health outcomes and reduced medical wastage. Through innovation and technology, the team tackles the challenge of inaccessible and costly hemoglobin testing, making health care more accessible and efficient for all.
- b. The model training process primarily relied on data gathered from controlled experiments, user trials, and surveys conducted during the product development phase. These primary sources provided essential insights into user interactions, preferences, and behaviors, ensuring the model reflected the real-world conditions of the target market. Additionally, secondary sources, including relevant medical literature, publicly available datasets, and industry reports, enriched the training dataset, offering a comprehensive understanding of the domain.

>> Scale

 a. Operational validation studies conducted at Solan Hospital, Himachal; ICMRRMRCBB; Maharashtra Medical Council; Ulhasnagar Hospital, Bhubaneshwar; Central Hospital, Bhubaneshwar; Kamla Nehru Hospital, Shimla; and Capital Hospital, Bhubaneshwar.

Name of founder/CEO and location

Partha Pratim Das Mahapatra, Founder Bhubaneswar, Odisha, India

Regulatory compliances

- a. ISO 13485 Med Certified
- b. IEC-6060
- c. CDSCO

23

>> Qritive Al India Private Limited

Al modules for the grading and detection of cancer



38

Technology has been applied in its final form, is operational, and is in the market



Innovation Performance Score





Categorization

#Prostate and colon cancer#Diagnostic assistance#Deep learning-enabled image analysis

Problem statement

Pathology is at a turning point as health care systems get impacted by the rapid growth of cancer cases (19 million new cases in 2020 versus 30 million in 2040) and the declining number of pathologists (30% drop expected between 2010 and 2030). This is particularly sensitive as the diagnosis of patients has critical implications on care delivery and is a complex craft, with high inter-observer variability that can lead to delays and inaccuracies.

Innovation description and technological approach

- a. Qritive's AI modules streamline cancer diagnosis by enhancing workflow efficiency through digital pathology, addressing the global shortage of pathologists. The AI reduces reporting time, lowers diagnostic inconsistencies, and provides objective case-level summaries from multiple slides.
 Specialized for prostate and colon cancer and offering generic tools for screening lymph nodes and IHC samples, Qritive's vendor-neutral technology integrates with various digital pathology systems. Backed by a network of 400 pathologists across 22 countries, Qritive ensures global relevance and clinical accuracy.
- b. Qritive's AI automates key diagnostic tasks, accelerating cancer reporting and guiding pathologists to critical areas. It reduces diagnostic discordance with objective analysis and supports telepathology, enabling remote diagnosis. Operating 24/7, the AI continuously analyzes data sourced from diverse biobanks, ensuring broad applicability and enhanced diagnostic precision.

>> Scale

- a. QAi prostate grade AI module deployed at Rajiv Gandhi Cancer Institute (Delhi) to improve tumor detection and prostate cancer grading.
- b. User acceptance testing (UAT) ongoing at Metropolis Healthcare and Core Diagnostics, India.

Name of founder/CEO and location

Bruno Occhipinti India and Singapore

- c. UAT in progress at Data Pathology, Morocco.
- d. Conditional approval from the Department of Health, Abu Dhabi, with clinical validation underway at Cleveland Clinic Abu Dhabi.

>> Regulatory compliances

- a. CE-IVD (vitro diagnostic (IVD)
- b. Class A HAS
- c. HSA (Class C IVD)

24

>> Qure.Ai Technologies Private Limited

AIR – PATH, qXR's: AI-powered integrated respiratory screening pathway



Technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score



Categorization

#Respiratory diseases#Lung cancer#Screening and diagnostic assistance#Deep learning-enabled image analysis and natural language processing (NLP)

Problem statement

Respiratory diseases cause nearly one-fifth of global deaths in individuals aged five and older, with lung disorders making up 20-30% of primary care visits. Similar clinical signs and risk factors among respiratory diseases complicate diagnosis and management, often leading to misdiagnosis. Symptom-based screening lacks sensitivity and specificity, especially in settings with insufficiently trained health care professionals and infrastructure, causing delays in diagnosis and treatment. Poor follow-up and treatment adherence further worsen lung health outcomes.

Innovation description and technological approach

- a. Qure.ai's innovation, aligned with the World Health Organization's Practical Approach to Lung Health (PAL), leverages AI-powered respiratory screening to enhance lung care in resource-limited settings. Integrating tools such as cough analysis, chest X-rays, and pulmonary function tests on a care-coordination platform streamlines early and incidental detection of respiratory diseases. By creating and reinforcing community-and facility-based care pathways, Qure.ai's AI-driven tools enable evidence-based triage, empower health care workers, optimize resource utilization, and strengthen health systems for improved lung health outcomes.
- b. qXR's development dataset comprises 4.4 million chest X-rays, each paired with radiologist reports. Labels were extracted using a custom natural language processing (NLP) algorithm. Additionally, 35% of the dataset was pixel-level annotated by 18 radiologists, focusing on scans flagged as abnormal by the NLP algorithm. For internal testing, 300,000 scans were independently reviewed by seven radiologists, with ground truth established through a majority vote. The dataset is geographically diverse, representing adults with approximately 60% males and a wide range of ethnicities.

Scale

- a. qXR has been deployed at over 2,800 sites across 85 countries, including 372 sites in India.
- b. In partnership with FIT Vietnam, qXR integrated lung cancer screening into TB-focused chest X-ray (CXR) screening, creating a sustainable pathway for multi-lung disease detection and referral at the primary care level.
- c. To date, qXR has screened 106,000 individuals for tuberculosis, identifying 1,109 (1.5%) with potentially malignant lung nodules. This led to

Name of founder/CEO and location

Dr. Prashant Warier, Founder and CEO Mumbai, Maharashtra, India 387 CT scans, confirming malignant nodules in 59% of cases and diagnosing 78 individuals with lung cancer

Regulatory compliances

- a. CE0123 b FDA
- c. European Union General Data Protection Regulation (EU-GDPR) Compliant
- d. HIPAA Compliant
- e. ISO Certification

>> DeepEcho

Democratizing quality ultrasound



70.30

Technology has been applied in its final form, is operational, and is in the market.

Innovation Performance Score



38

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Categorization

#Maternal and child health #Diagnostic assistance

Problem statement

Inadequate prenatal care and lack of access to skilled sonographers in low-resource settings result in undiagnosed conditions, preventable complications, and higher maternal and infant mortality. Enhanced access to quality prenatal diagnostics, like those provided by AI technologies, can significantly improve these outcomes by enabling early detection and management of potential health issues, reducing the burden on health care systems and improving overall public health resilience.

Innovation description and technological approach

- a. DeepEcho's Al-driven solution addresses the shortage of prenatal care specialists by using machine learning to interpret ultrasound videos with a high degree of accuracy. This system assists non-specialist health care providers in performing complex prenatal diagnostics, which can lead to early interventions and better management of pregnancy-related issues. It effectively extends the reach of expert prenatal care to underserved populations, ensuring that critical health insights are not missed and improving the overall pregnancy outcomes. This innovative approach integrates deep learning and computer vision techniques, allowing their solution to accurately identify a wide range of fetal conditions. By emulating expert sonographers, DeepEcho ensures high diagnostic accuracy and consistency.
- b. The AI model is trained on a diverse dataset of ultrasound videos from partner hospitals in New York, Morocco, Kenya, and Nigeria, ensuring robustness and accuracy. Rigorous preprocessing standardizes video quality and expert sonographers provide annotations, allowing AI to effectively detect a wide range of fetal conditions across diverse populations and health care settings.

>> Scale

a. Deployed in hospitals across Morocco, the USA, Kenya, and Nigeria

Name of founder/CEO and location

Youssef Bouyakhf, CEO Dover, DE USA

>> Regulatory compliances

- a. No regulatory compliance listed by the organization.
- b. Validated the technology through a peer-reviewed study published in Nature Communications. The study highlights the technology's diagnostic accuracy, exceeding 95%, in detecting fetal anomalies.

26

>> Mocxa Health

Portable, user-friendly at-home video-EEG solution



Device: The technology has been applied in its final form, is operational, and is in the market.

TRL 6 Al model: The prototype is being tested in a simulated operational environment or in a high-fidelity laboratory environment.



Innovation Performance Score

88

Neurological disorders#Epilepsy#Diagnostic assistance#Patient monitoring#Deep neural network-based AI model

Problem statement

Categorization

Undetected seizures can lead to serious health consequences, including morbidity and long-term cognitive impairments, especially in underserved regions with limited neurological resources. This lack of access to timely diagnostics exacerbates health care disparities and negatively impacts outcomes for individuals with epilepsy and other neurological disorders.

Innovation description and technological approach

a. Mocxa aims to integrate a validated DNN-based AI model for intracranial electroencephalogram (EEG) into its portable, user-friendly video-EEG solution. This gold-standard system will automatically identify plausible seizure events and require no specialized training to operate. By enhancing the accessibility and accuracy of diagnostics, the solution aims to improve patient care in remote areas with limited neurological resources.

>> Scale

: : :

Not provided by the organization.

>> Regulatory compliances

- a. Manufactured in ISO 13485 certified facility
- b. CDSCO MD13
- c. IEC 60601

Name of founder/CEO and location

Aditya Kadambi, Co-Founder Bengaluru, Karnataka, India

>> Onward Assist

PathFlowDx & PathAssist: A comprehensive full-stack digital pathology software solution augmented with state-of-the-art AI algorithms tailored to meet the needs of cancer pathologists.



Technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score



88

Categorization

#Cancer #Diagnostic assistance #Deep learning-enabled image analysis

Problem statement

There are only 600 cancer pathologists in India, and in the US, the number is steadily decreasing. Meanwhile, India sees about 1.7 million new cancer cases each year, resulting in long waiting times and sub-optimal patient outcomes. Pathologists typically take 15-30 minutes to report a single case, which limits the number of cases they can handle daily. A solution that enables pathologists to report more cases in the same time frame without compromising diagnostic accuracy is urgently needed.

Innovation description and technological approach

- a. Onward's pathology AI algorithms analyze images of cancer biopsy slides and assist the cancer pathologist in their reporting process, reducing the reporting process time by 30-40% and improving the accuracy by 12-15% around tumor grading and cell quantifications. Onward's imaging algorithms are designed to detect different types of cells. Once detected, the algorithms also process each cell to determine various properties, such as shape, texture, color distribution features, and distance to the tumor and other spatial neighbors. Most pathologists rely on "eye-balling" when analyzing the slides and this leads to approximation errors, especially with critical markers and in borderline cases. Onward's AI tools are built to mimic the pathologist in their slide analysis process but remove the "subjectivity" in the process.
- b. Onward's AI tools are built in collaboration with leading cancer institutes and diagnostics service networks. Through these collaborations, they get source (i) problem statements, (ii) expertise, and (iii) high-quality data in the form of whole slide images and case information.

>> Scale

- a. Deployed at AIIMS Delhi, India's largest cancer institute, and Tata Memorial Mullanpur.
- b. Onward's Telepathology software was implemented in Andhra Pradesh, benefiting 1,000 patients across four community health centers and primary health centers through its remote case reporting platform, supported by the BIRAC Jancare grant.
- c. Currently operating a telepathology network in partnership with PGI Chandigarh.

Name of founder/CEO and location

Dinesh Koka, Co-Founder and CEO Hyderabad, Telangana, India

- d. Collaborating with Roche Africa to execute a telepathology project in West Africa.
- e. Partnered with pathologists from Yale School of Medicine and Weill Cornell on research involving pathology algorithms to assist in breast cancer biopsy reporting.

>> Regulatory compliances

- a. Certified ISO 13485, ISO 14971, IEC 62304, IEC 62366 (Global)
- b. CDSCO
- c. CE Marked

>> Trackitnow Inc

Moskeet: A data platform that leverages AI and sensors(IoT) to prevent mosquito-borne diseases in low-income communities.

TRL 9 Technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score



28

Categorization

#Infectious diseases #Climate and health #Surveillance and outbreak investigation

Problem statement

Mosquito-borne diseases like malaria, dengue, and Zika pose significant global challenges, affecting quality of life and resulting in millions of deaths. These diseases burden public health systems and local economies, costing around \$100 billion annually. In developing countries, a single disease occurrence can push families into poverty and disrupt children's education. The traditional approach used for the last 100 years is not based on real-time data-driven analytical approaches. Current methods of manually gathering mosquito and disease surveillance information are labor-intensive and the resulting data is inconsistent.

Innovation description and technological approach

- a. Moskeet data platform leverages AI and sensors(IoT) to prevent mosquito-borne diseases in low-income communities using real-time mosquito and disease surveillance, interventions, climate, population, mobility, and environmental data. There are four key components to the solution: Sensor network, stakeholder network, real-time analytics, and predictive analytics. Moskeet approach of using integrated local data aligns with "High Burden High Impact" strategy strongly recommended by the World Health Organization. Moskeet's platform analyzes the impact of climate (megatrend) on mosquito-borne diseases and helps better predict the outbreaks. Moskeet's approach is to prevent the disease rather than treating the disease.
- b. The mosquito surveillance module employs wing beat profiles to identify species linked to mosquitoborne diseases, having collected 480,399 profiles using a specialized device. Alongside wing beat data, capture time, season, and location aid in species identification. Mosquito and disease surveillance data are automatically sent to cloud servers for analysis, allowing for geographic mapping of hotspot changes over time and assessing the impact of vector control measures on mosquito populations and pathogen prevalence. The system evaluates intervention effectiveness, determines when to repeat actions, and incorporates factors such as weather, human population, breeding sites, and mobility data to predict outbreaks. Overall, Al enhances data collection, informs actionable insights, monitors effectiveness, and forecasts potential outbreaks.

Scale

- a. Smart City Thiruvananthapuram Limited, Kerala, India
- b. Greater Hyderabad Municipal Corporation, Hyderabad, India
- c. Vijayawada, India

Name of founder/CEO and location

Satish Cherukumalli, Cofounder and CEO Columbia, SC, USA

- d. Yanam, Puducherry, India
- e. Indian River County, FL, USA
- f. Salt Lake, UT, USA

Regulatory compliances a. None listed by the organization

>> Do-more Diagnostics

Histotype Px[®] Colorectal: Application of the AI-based digital biomarker to aid clinical decision-making and personalize adjuvant chemotherapy treatment for Stage 2 and Stage 3 colorectal cancer patients



88

The actual system prototype is near completion or ready and has been demonstrated in an operational environment or at the pilot level.



Innovation Performance Score

Categorization

Colorectal cancer# Treatment support#Clinical decision-making

Problem statement

Each year, around 2 million people are diagnosed with colorectal cancer (CRC), with 55% in stage 2 or 3, where surgery is the primary treatment. While most are cured by surgery alone, up to 85% receive unnecessary adjuvant chemotherapy (ACT) due to the lack of reliable biomarkers, despite no added benefit. ACT causes severe side effects in 50% of patients, leaves 30% with chronic health issues, and results in death for 1%. As the European Society for Medical Oncology (ESMO) highlights, there is an urgent need for better biomarkers to guide personalized treatment and ensure ACT is only given to those who will benefit.

Innovation description and technological approach

- a. Directly addressing the problem, Histotype Px® Colorectal analyses routine histology slides and seamlessly integrates into existing workflows and software systems to provide clinicians with a rapid (i.e., minutes), cost-effective, and highly accurate biomarker (hazard ratio >10) to guide personalized ACT treatment decisions in stage II and III CRC and vastly reduce the problem of overtreatment in this indication.
- b. Histotype Px Colorectal was developed using 90 million image tiles (multiple nonoverlapping image regions) and longitudinal patient outcome data from >2500 patients, using conventional H&E-stained tissue slides and thereafter validated on an external cohort of 1100 patients. The biomarker was found to be a strong predictor of cancer-specific survival in stage II and III. It outperformed established molecular and morphological prognostic markers (e.g., RAS, MSI, Oncotype Dx, and Immunoscore). The development and validation of the technology are well documented in high-impact journals such as The Lancet (2020) and Lancet Oncology (2022), and Histotype Px® Colorectal is the first CE-IVDD marked Al-based outcome prediction biomarker in stage II and III CRC.

>> Scale

a. Histotype Px is currently mainly deployed for retrospective-prospective validation studies in key territories, but there has been some smallscale pilot use at local sites in Norway and the UK.

Name of founder/CEO and location

Torbjørn Furuseth MD, CEO and Co-Founder Oslo, Norway

Regulatory compliances

- a. ISO 13485
- b. Histotype Px is the first CE-IVDD marked Albased outcome prediction biomarker in stage II and III colorectal cancer

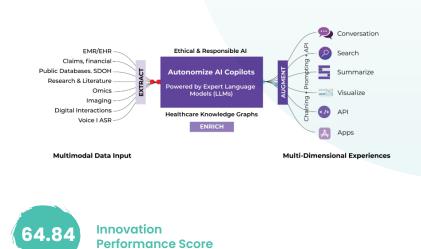
>> Autonomize, Inc (DBA Autonomize AI)

Autonomize genesis: An Al platform to build multiagent compound Al systems that reduce the administrative burden for complex health care knowledge workflow and improve the quality of patient care.

Technology has been

applied in its final form, is

operational, and is in the



TRL

9

Categorization

market.

#Medical documentation and workflow efficiency #Large language model (LLM)

Problem statement

Autonomize AI addresses the critical public health challenge of unstructured health care data, which constitutes about 90% of all medical data. Despite the data deluge, patient outcomes and the advancement of personalized medicine have been stymied by the inability to effectively process and analyze this information. Due to the complex nature of these data sources, the prevalent manual processing of health care workflows leads to inefficiencies and impedes the delivery of optimized care.

Innovation description and technological approach

- Autonomize's AI copilots go beyond traditional analytics by organizing, contextualizing, and summarizing unstructured health care data, enabling seamless automation of both administrative and clinical workflows. Utilizing a multi-agent AI system through the Genesis platform, Autonomize integrates large language models, vision transformers, and business rules to process and analyze complex medical texts and imaging with precision.
- b. Its AI models are trained on diverse, anonymized datasets, ensuring HIPAA compliance, with real-time feedback refining models based on the latest medical standards. Expert oversight ensures clinical accuracy, delivering actionable insights for health care organizations globally.

Scale None in India Regulatory compliances None listed by the organization

Name of founder/CEO and location Ganesh Padmanabhan, CEO

Austin, Texas, USA

>> Delft Imaging

Baby Checker: An Al-powered pregnancy screening solution designed for health workers who do not have prior expertise in sonography.



The actual system prototype is near completion or ready and has been demonstrated in an operational environment or is at the pilot level.

62.42



Categorization

Innovation

Performance Score

#Maternal and child health#Screening and diagnostic assistance#Compuer vision and deep learning-enabled image analysis

Problem statement

In most rural villages in LMICs, there is an absence or lack of ultrasound devices or clinicians trained to use ultrasound devices. In these same settings, there is a higher rate of maternal mortality and pregnancy complications. Ultrasound can prevent pregnancy complications and has even been shown to attract pregnant women to attend antenatal care visits.

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Innovation description and technological approach

- a. BabyChecker is an AI-powered pregnancy screening solution designed for health workers who do not have prior expertise in sonography. With BabyChecker, a health worker simply needs to acquire six sweeps across the abdomen, and the AI software will interpret the images to identify the gestational age, fetal presentation, and placenta localization. A visual image of the fetus will also appear on the mobile application and can be shared with the pregnant woman.
- b. Computer vision and deep learning models on ultrasound images from pregnancies in different trimesters and in various countries in Africa and Latin America have been used to train the model. The AI analyses six sweeps across the abdomen to provide screening results

>> Scale

- a. Project in eight countries in Africa and Latin America with international organizations.
- b. BabyChecker is successfully used by nearly 1000 health workers.
- c. Over 5000 pregnant women screened with BabyChecker.

Name of founder/CEO and location

Enya Seguin The Netherlands and Accra, Ghana





>> Regulatory compliances

a. Ultrasound probe is CE-certified

>> Roundworks Technologies Private Limited

Alveofit[®]: A handheld portable spirometer with a connected digital platform for integrated respiratory care.



Technology has been applied in its final form, is operational, and is in the market





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Innovation Performance Score

28

Categorization

#Cardiovascular and pulmonary disease #Screening and diagnostic assistance #Remote patient monitoring

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Problem statement

Conventional spirometers are costly and limited to tertiary care due to the need for specialized skills and infrastructure, making them inaccessible at the primary care level where they are most needed. Without spirometry, respiratory conditions are often diagnosed late, leading to poor outcomes, high costs, and a significant disease burden.

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Innovation description and technological approach

- a. Spirometry is the gold standard for diagnosing respiratory diseases by measuring airflow and lung volume during respiration. Alveofit, is a turbine-based hand-held spirometer weighing just 75 grams that integrates with a connected digital ecosystem and decision support system to decentralize spirometry, enabling early detection, effective care, and seamless follow-up for respiratory patients.
- b. The device leverages IoT to connect with smart devices and utilizes machine learning to guide the spirometry process. It is exceptionally easy to operate without requiring specialized skills and minimizes session errors.
- c. The digital ecosystem, powered by cloud technology, facilitates remote patient monitoring and ongoing follow-up over time.

>> Scale

- a. Commercial deployment at 400+ sites in India.
- b. Enabled spirometry for 32,000 unique individuals
- c. Started exporting to the ASEAN region

Name of founder/CEO and location

Dr. Prashant Patel, CEO Pune, Maharashtra, India

Regulatory compliances

- a. U.S. Food and Drug Administration (US-FDA) (510K) clearance
- b. CDSCO India approval

>> Logy.Al

Eye screening solution for early cataract detection



28

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The technology has been applied in its final form, is operational, and is in the market.





Categorization

#Retinal pathology#Screening and diagnostic assistance#Deep learning-enabled image analysis

Problem statement

In India, over 12 million elderly individuals are affected by blindness, with cataracts contributing to approximately 70% of these cases. This widespread condition diminishes the quality of life for millions and imposes a significant economic burden on society due to lost productivity. The World Health Organization states that cataracts are responsible for 51% of global blindness, impacting around 65.2 million people worldwide. The situation in India is particularly dire, driven by an aging population, limited health care access, and a shortage of ophthalmologists. Despite government initiatives, a lack of awareness and restricted health care access continue to exacerbate the problem.

Innovation description and technological approach

Logy.Al Eye screening solution deploys their Al-ML-powered health screening solution for cataract detection. Front-line health workers or end-users capture eye images using a smartphone, which are then processed and analyzed using Logy.Al's innovative technology. Al algorithms swiftly generate a comprehensive report on cataract presence and stage, shared with hospitals for surgical planning. This user-friendly solution enables affordable and accessible preliminary screenings at home or in remote areas, benefiting individuals in rural and underserved regions. They have partnered with multiple private health care providers and government bodies to source the dataset.

>> Scale

- a. Deployed across multiple locations in India, including private health care providers and primary health centers.
- b. Screened over 150,000 patients in collaboration with private organizations.
- c. Participated in a 5G use case pilot for digital health deployment in primary health centers in the Vidisha district, Madhya Pradesh, screening 1,700 patients.
- d. Collaborated with leading eye hospital chains such as Dr. Agarwal's Hospitals, Sharpsight Hospitals, Apollo Clinics, AIIMS Bibinagar (Telangana), and Amtron in Northeast India, as well as Sharp Sight Eye Hospitals in North India.

Name of founder/CEO and location

Mr. Priyanjit Ghosh, CEO and Co-Founder Hyderabad, Telangana, India

Regulatory compliances

- a. Cyber Global Risk Exchange (CyberGRX) compliant
- b. ISO 13485 (in process)

>> Impute INC

Neo Rx - Digital Therapy App for Children with Autism



Technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score



Categorization

#Neurodevelopment disorder #Treatment support #Computer vision and deep learning

Problem statement

One in 54 children is affected by autism, with rising numbers, but therapy is often expensive and inaccessible, costing up to \$60K/year in the US with long insurance waitlists. Many children with autism struggle with inperson therapy, and despite ABA (applied behavior analysis) therapy being the gold standard, a lack of therapists leaves many parents unable to help.

Innovation description and technological approach **:**

- a. Neo Rx has been designed to provide children with autism an individualized educational program by placing them on a learning sequence based on their performance assessment. This app uses ABA principles to teach children skills using positive reinforcement and a positive learning setting. The child on the autism spectrum can access child-friendly videos, games, puzzles, and coloring on the application throughout their instruction. Neo Rx collects and graphs data on the child's progress and aims to increase independence skills in children. It is designed to be a child-friendly learning app.
- b. The impute system initiates a sequence of educational tasks, methodically monitoring the child's interactions through computer vision deep learning algorithms. These algorithms are trained to recognize and interpret facial expressions, enabling the system to discern the child's engagement levels with high precision. As the child progresses, their responses are continuously logged and analyzed at set intervals. Moreover, more deep learning models recognize the hand and body gestures and show them the correct gestures. Through this integration of AI, the impute system not only tailors content to the child's emotional state but also actively participates in teaching proper communication techniques, thus enhancing the educational process.

Scale

- a. Adoption of the system by over 14,000 users serves
- b. Downloaded and used by 14,000 parents and therapists worldwide to help improve a child's cognitive skills.
- c. Pilot Study with the National Center for Child Health and Development, Japan, with 10 children. Around 51% of users were willing to learn more about the app and some improvement was seen in most children.
- d. RCT with AIIMS, India A six-month trial with 120 children.

Name of founder/CEO and location

Manasvi, Project Investigator Chiyoda-Kum, Tokyo, Japan

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Regulatory compliances None listed by the organization.

>> Artificial Learning Systems India Pvt Ltd. (ARTELUS)

DRISTi (DRISTi (Diabetic Retinopathy Intelligent Screening Technology integrated) is an AI-powered technology designed to prevent preventable blindness by screening populations at risk detection



88

Technology has been applied in its final form, is operational, and is in the market.





Categorization

#Retinal pathology #Screening and diagnostic assistance #Deep learning-enabled image analysis

Problem statement

Preventable blindness remains a major public health challenge, exacerbated by a global shortage of health care professionals and accessible diagnostic devices. Millions of people suffer from visual impairments that could be avoided with early detection and timely intervention. However, in underserved regions, the scarcity of ophthalmologists and limited access to advanced eye care often result in delayed diagnoses, leading to irreversible blindness.

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Innovation description and technological approach

- a. DRISTi is an Al-powered medical technology designed for the early detection of 19 pathologies by analyzing retinal images. It utilizes efficient net and vision transformer-based deep neural networks (with multi-head attention) with GradCam-based algorithms to assess the presence of diseases and other retinal pathologies appended with explainable AI.
- b. Trained on a million images, it can accurately predict 19 retinal abnormalities.
- c. DRISTi operates offline, requiring no Internet connection, and is integrated with an operator-independent fundus camera or an OCT device for comprehensive screening.

>> Scale

a. Deployed in six countries at over 40 locations

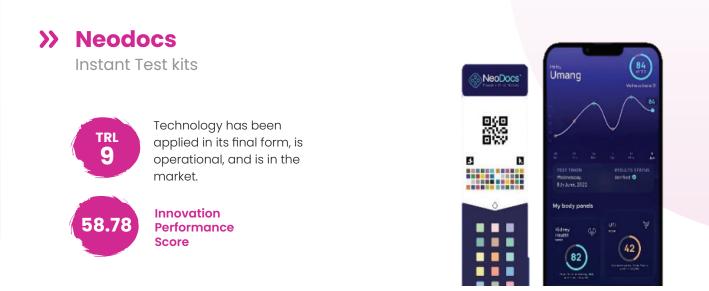
Regulatory compliances >>

a. Conformité Européene (CE) marked

- b. Therapeutic Goods Administration (TGA) Australia
- c. Ministry of Health (MOH), UAE
- d. MOH, Tanzania
- Currently pursuing US FDA and CDSCO

Name of founder/CEO and location

Pradeep Walia, Project Investigator Bengaluru, Karnataka, India



Categorization

28

#General pathology #Diagnostic assistance

Problem statement

Currently, India has only 10,000 pathology labs for testing, serving a population of 1.3 billion people. However, most of these labs are concentrated in urban areas, making it challenging for the rural population to access them. Additionally, not all of these labs are National Accreditation Board for Testing and Calibration Laboratories (NABL) certified, raising concerns about the quality of machines used in these facilities. The high prices of these tests make it financially infeasible for many to undergo multiple tests yearly. Moreover, there is a risk of sample contamination. As a result, many diseases go undiagnosed, preventing timely intervention and prevention.

Innovation description and technological approach

Neodocs is developing an instant at-home testing platform that allows users to quantify biomarkers using a smartphone without needing external hardware. They design custom test cards containing highly specific biochemistries, which produce a visual output of color or intensity changes at the end of the reaction. A smartphone application then captures the visual changes caused by the chemistry on the test card. This application runs sophisticated algorithms to compensate for surrounding light, camera variations, etc., providing a semiquantitative/quantitative result based on the test performed. To use the platform, users can order these test cards online, which are delivered via post. By following simple steps to apply the sample to the test card, users can obtain their results anywhere, anytime.

>> Scale

a. Pilots conducted are with the Government of Maharashtra, Government of Rajasthan, and Government of Karnataka.

Name of founder/CEO and location

Nikunj Malpani, Co- founder/CEO Mumbai, Maharashtra, India

>> Regulatory compliances

- a. ISO13485
- b. CDSCO
- c. State FDA

>> Doto Health (CareMother)

A wireless, interactive, and smartphone-based NST/ cardiotocography machine designed to monitor pregnancy remotely from anywhere, anytime, for doctors and mothers, providing the best fetal monitoring experience possible.





22

The technology is proven and developed but not yet operational or applied anywhere.



Categorization

#Maternal and child health #Screening and diagnostic assistance

Alternative machine learning models, such as random forest and multi-layer perceptron (MLP) classifiers

Problem statement

Fetal monitoring globally depends on nurses and auxiliary nurse midwives, many of whom lack the training to interpret fetal heart monitoring traces during pre-labor and labor. While they can use devices like Dopplers, reading the graphs is challenging, even for specialists, leading to missed interventions. This skill gap prevents governments from deploying fetal monitors at frontline care levels, and the bulky nature of current devices limits access to specialty hospitals. Additionally, high-risk pregnancies require constant monitoring, and the impact of extreme heat on fetal health complicates routine assessments. Addressing these issues is essential for improving fetal monitoring and care access.

Innovation description and technological approach

- a. Fetomax is a smartphone-based interactive and advanced cardiotocography (CTG) machine for fetal and labor monitoring. This device helps in continuous and remote monitoring and AI-powered interpretations to reduce complications and save mortality. Fetomax provides invaluable insights through its AI tool by interpreting the fetal heart rate trace, which would otherwise have missed manual interpretation. The primary objective of this innovation is to enhance the predictive capabilities of the Fetomax CTG machine regarding pregnancy outcomes through the integration of machine learning algorithms.
- b. The team utilized the University of California, Irvine (UCI) dataset, which contained detailed CTG recordings and corresponding birth outcomes, to train and validate the machine learning classifier. In addition, they collected a dataset from India through clinical studies conducted with Fernandez Hospital, AIIMS Nagpur, and Government Medical College, Aurangabad. This dataset included over 1,000 records of pregnancy and newborn outcomes and more than 500,000 test results from regular examinations with partial outcomes. They employed decision tree methodology to develop a machine learning classifier that predicts risks associated with birth outcomes based on CTG metrics. The team also experimented with alternative machine learning models, such as Random Forest and Multi-Layer Perceptron (MLP) classifiers, to improve the model's precision. The developed classifier underwent rigorous testing using cross-validation techniques to ensure robustness and generalizability, with indication-wise cross-validation conducted in collaboration with various hospitals.

>> Scale

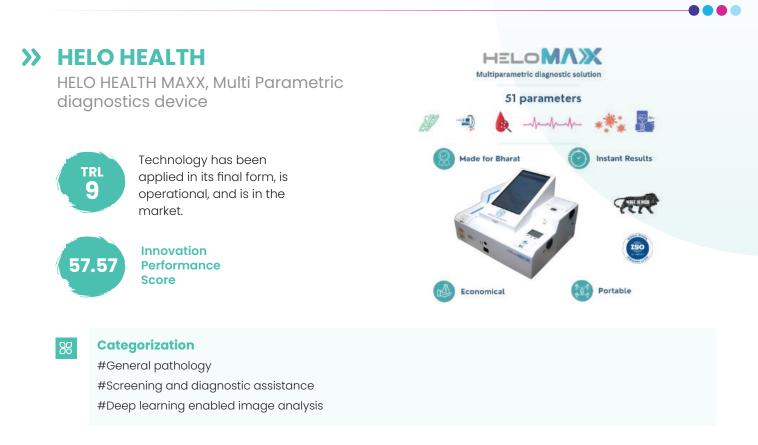
- a. 750+ clinics/hospitals, 1000+ OBGYNs across India serving approximately 500,000+ women to date
- b. 10+ doctors in Bangladesh

Name of founder/CEO and location

Shantanu Pathak, Founder and CEO Pune, Maharashtra, India

>> Regulatory compliances

a. CDSCO Class C manufacturing in India



Problem statement

In rural India, there are hardly 25,000 labs catering to 900 million citizens in 600,000 villages. This means doctors and health professionals prescribe general medications without the crucial aid of test results, leading to potential complications. Villagers must make multiple visits to towns for tests and then for reports, which delays diagnosis. Moreover, they spend heavily on travel and workers lose their daily wages. This raises costs and makes diagnostics unaffordable for them.

Innovation description and technological approach

- a. Helo Health MAXX, an AI-based multiparametric medical device that conducts painless tests, is accurate and gives instant results for more than 51 parameters via AI-based interpretation of test results for more than 15 infectious diseases and markers. The AI-powered solution uses image analysis to automate the process of correctly interpreting test findings from the lateral flow immuno-chromatography assay (LFIA). Users can take pictures of LFIA test cassettes using the HELO MAXX system, and the AI algorithm determines whether certain biomarkers are present and classifies the results as positive, negative, the result of user error, or invalid. The technology ensures improved RDT testing efficiency and reliability by removing human interpretation errors and offering digital records of images and results, eventually providing a linkage of test results to a patient, ensuring traceability and enhancing health care delivery.
- b. Their component suppliers gathered a dataset of 5,000 RDT images to train the AI model for interpreting LFIA tests. The images, captured using a multimodule setup, represented diverse test cassettes, lighting conditions, and user techniques. Each image was labeled with the correct test outcome and verified by visual inspection. This varied dataset helped ensure the AI model's robustness and generalizability, enabling it to accurately interpret LFIA test results across different environments and setups.

>> Scale

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- a. Deployed six devices across India for pilots at hospitals and doctors' clinics.
- b. One device has been sold to the Philippines for deployment in their public health system.

Name of founder/CEO and location

Sandeep Bhatia, Founder and Director Thane, Maharashtra Regulatory compliances a. CDSCO Test License

>> Revca Softech Pvt. LTD

Muskan.ai: An Al-powered dental health care platform that provides solutions for radiograph analysis, oral cancer screening, patient education, and virtual dental assistance



Technology has been applied in its final form, is operational, and is in the market.





88

Categorization

#Oral cancer#Dental issues#Screening and diagnostic assistance#Deep learning and computer vision-enabled image analysis# Transformers and large language models

Problem statement

In India, dental radiography often lacks standardization, impacting case acceptance for complex procedures. Additionally, there is a significant burden of oral cancer, with limited access to non-invasive screening methods.

Innovation description and technological approach

- a. Muskan.ai provides AI solutions to improve the challenges faced by dentists, DSOs, and nongovernmental organizations to improve health care delivery, optimize workflow, educate patients, and uptake public health screenings of oral diseases and oral cancer (OPMDs). Muskan.ai's system employs deep learning and computer vision to identify patterns indicative of various dental conditions. By learning from a diverse dataset, the models continuously improve their ability to detect abnormalities in X-rays, CT scans, and other imaging modalities, providing dentists with invaluable assistance in diagnosing conditions such as cavities, fractures, and periodontal disease.
- b. Additionally, transformers and large language models are utilized to help patients understand their dental issues, offering 24/7 virtual dentist access while enabling dentists to automate their routines and procedures. A multimodal AI approach integrates patient data from electronic health records, imaging studies, and clinical notes. Relevant information is extracted from unstructured data sources to identify risk factors and provide personalized treatment options based on evidence-based guidelines and historical outcomes.

>> Scale Not provided Regulatory compliances Not Provided

Name of founder/CEO and location

Dr. Drishti Chopra, Founder and CEO Chandigarh, India

>> Onco-Connect

Skin Lens: Focused, clear view into diagnosing skin conditions

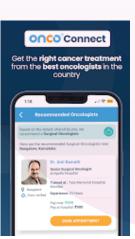


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The prototype is being tested in a simulated operational environment or in a highfidelity laboratory environment



Innovation Performance Score



Categorization

#Skin related cancers#Screening and diagnostic assistance#Deep learning and transfer learning enabled image analysis

Problem statement

Late detection and misdiagnosis of skin conditions, including skin cancer, are major public health issues due to their high prevalence and serious consequences. Skin cancer is one of the most common cancers worldwide, and delayed diagnosis often leads to increased morbidity and mortality. The lack of accessible, efficient, and precise diagnostic tools exacerbates these problems, underscoring a critical gap in effective dermatological care.

Innovation description and technological approach

- a. Skin Lens is a groundbreaking innovation in the field of dermatology, leveraging the advanced capabilities of deep learning and transfer learning to classify skin conditions. At its core, the product uses sophisticated algorithms to analyze images of skin lesions or abnormalities, comparing them against vast datasets of dermatological images. This process allows Skin Lens to accurately classify conditions into categories such as basal cell carcinoma, malignant melanoma, Seborrheic Keratosis, and psoriasis.
- b. Deep learning enables the system to learn and improve over time, making each analysis more accurate. By using layers of neural networks, the model can identify patterns and features in skin images indicative of specific conditions. Transfer learning, on the other hand, enhances the system's efficiency and accuracy. It allows Skin Lens to apply knowledge gained from one task to another related task. In this case, pre-trained models on general images are fine-tuned with specific dermatological images, accelerating the learning process and improving diagnostic precision.
- c. This combination of deep learning and transfer learning makes Skin Lens a powerful tool for health care professionals, assisting them in diagnosing skin conditions more quickly and accurately. It also serves as a valuable resource for community engagement, educating individuals about skin health and encouraging early detection of skin-related issues. To train the model, data is sourced from diverse dermatological datasets. These include publicly available datasets like the International Skin Imaging Collaboration (ISIC) database and DermNet, as well as collaborations with medical institutions for anonymized patient images.

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>> Scale

a. A proof of concept (PoC) or pilot deployment has not yet been conducted. The current phase focuses on finalizing the development of the AI model and ensuring its accuracy and reliability through extensive testing with diverse dermatological image datasets.

Name of founder/CEO and location

Akshay Kulkarni, Founder and CEO Mumbai, Maharashtra, India **Regulatory compliances** None listed by the organization

>> PHARMARUN

An Al-powered platform to provide fast, easy, and affordable medication delivery across Africa.

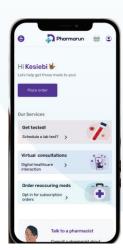
TRL 9

88

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The technology has been applied in its final form, is operational, and is in the market.





Categorization

Medical documentation and workflow efficiency#Medicine supply chain optimization#Medication adherence

Problem statement

Over 600 million Africans face significant barriers to accessing quality medication due to fragmented health systems, high out-of-pocket expenses, and indirect treatment costs. These challenges result in delayed treatment and poor adherence to care plans, posing a serious threat to public health. The ongoing issues in health care access contribute to the spread of preventable diseases and the increasing prevalence of chronic illnesses across the region.

Innovation description and technological approach

- a. Pharmarun addresses the challenge of medication access in Africa by aggregating multiple pharmacies to provide fast, easy, and affordable medication delivery. Its AI algorithms optimize the supply chain by predicting demand, managing inventory, and offering customer support, reducing delays and ensuring timely access to essential medicines. The platform also enhances medication adherence through personalized reminders, interaction checkers, and automated refills, helping prevent complications. By consolidating Africa's largest medication inventory, Pharmarun improves availability and affordability, effectively tackling the fragmented health systems and high out-of-pocket costs that hinder access to quality healthcare. This solution enables more Africans to obtain necessary medications, improving health outcomes and economic stability across the region.
- b. Pharmarun's AI model leverages diverse data sources to address the critical issue of medication access in Africa. It uses prescription data from health care providers and pharmacies, along with sales and inventory information, to optimize the supply chain and ensure efficient distribution. Patient adherence data collected through the Pharmarun app enhances reminder systems, while health outcomes data validates the effectiveness of Pharmarun's interventions by linking medication adherence to improved health. Additionally, socioeconomic data offers valuable insights into financial barriers, allowing for tailored services to better meet the needs of patients.

>> Scale

a. Impacted over 50,000 lives across 25 cities and made significant impacts in improving health care access across Africa

Name of founder/CEO and location Teniola Adedeji, CEO/Co-Founder Lagos, Nigeria

Regulatory compliances None listed by the organization

>> CapsicoHealthCare

AI2PREVENT: An AI platform and Gen-AI work-bench with real-world data-driven early detection tools based on climate and socioeconomic factors for prediction.

> Technology has been applied in its final form, is operational, and is in the market.

Innovation Performance Score



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Categorization

TRL

53.93

#Climate and health #Respiratory and cardiovascular diseases #Surveillance and disease risk prediction #Generative AI

Problem statement

Chronic obstructive pulmonary disease (COPD), including asthma, impacts 1 in 12 children and 1 in 13 adults across the world, causing unplanned hospitalizations due to hazardous environmental conditions. Air pollution increases inflammation in the human body and can impact severely cardiovascular disease, diabetes, arthritis, and cancer conditions. This innovation is amongst the first to combine pollutants and weather conditions, surveys, medical records, and claims to predict asthma hospitalizations and alert at-risk patients.

Innovation description and technological approach

- a. The AI platform developed by Capsico addresses early warning and risk management for conditions such as asthma, COPD, and cardiovascular diseases. By analyzing several million de-identified medical and claims records for both pediatric and adult patients, along with large-scale environmental data, the platform identifies dominant risk factors such as weather, age, sex, and environmental exposures. It ranks chronic condition risk indicators and seasonal environmental factors, offering tools that enable caregivers to assess individual patient hospitalization risks and the prevalence of asthma based on demographics, clinical history, and pollution exposure.
- b. The platform provides front-line teams with insights into how high pollution levels correlate with increased hospitalizations, particularly during winter months when pollutants linger near the ground. These tools empower community healthcare workers to alert vulnerable populations, especially in disadvantaged areas, and promote preventive campaigns aimed at reducing hospitalizations and mortality risks.

>> Scale

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- a. 500+ users (mainly clinicians, specialists, casemanagers, care-group members, and market insights specialists)
- System designed and implemented with data access across multiple regions in the US, EU, India, and Asia

Name of founder/CEO and location

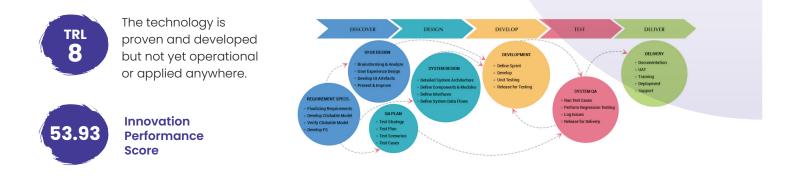
J. Sairamesh (Ramesh), PhD, CEO San Mateo, CA

>> Regulatory compliances

- a. Fast health care interoperability resources (FHIR)
 - b. HIPAA
 - c. SOC2

>> Argusoft India Limited

hAldoc: Support system that automates SOAP notes using listening technology



Categorization

Medical documentation and workflow efficiency#Medicine supply chain optimization#Medication adherence

Problem statement

Community health center doctors face limited time when balancing patient care and administrative tasks. This divided attention can lead to missed clinical cues, affecting patient outcomes. Patients often feel their concerns are not fully understood or explained, resulting in dissatisfaction and potential gaps in care quality.

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38

Innovation description and technological approach

- a. hAldoc system supports doctors at community-level clinics by enhancing patient care efficiency through automated SOAP note creation using advanced listening technology. The tool analyses doctorpatient conversations generates accurate notes for review, and suggests differential diagnoses and follow-up questions. The innovation uses open-source language models, OpenAl's Whisper API for audio-to-text transcription, custom RAG components, and proprietary modules. It incorporates active learning using doctor feedback to improve accuracy continuously.
- b. Future updates will integrate geographical data and patient history, further personalizing care and enhancing treatment quality.

>> Scale

a. Currently under trial deployment in one location

>> Regulatory compliances

 a. No regulatory approvals have been sought yet.
 In preparation for the scale-up, they will work with the statutory agencies for all approvals.

Name of founder/CEO and location

Sethuraman Venkatraman, Project Investigator Gandhinagar, Gujarat, India

>> 4P Healthcare Private Limited

HelloKidney.ai: A digital health solution for screening and diagnosing chronic kidney disease (CKD) in high-risk populations.



28

The technology has been applied in its final form, is operational, and is in the market.





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Categorization

#Chronic kidney disease #Screening and diagnostic assistance

Problem statement

CKD affects over 850 million people globally, including 110 million in India, and is the third-fastest growing disease, causing 5 million deaths annually due to limited access to treatment, especially in LMICs. By 2040, CKD is expected to be the fifth leading cause of death. Millions of people are succumbing to the disease due to missed opportunities for early detection and optimal care. The gaps and unmet needs in preventing and managing CKD in primary health care are quite evident.

Innovation description and technological approach

- a. HelloKidney.ai is a comprehensive digital health solution for screening and diagnosing CKD in high-risk populations. The diagnosis of CKD is based on measuring serum creatinine levels and estimated glomerular filtration rate (eGFR) using a point-of-care testing device called NovaProMax Creat. This device uses Stat-Sensor technology to estimate eGFR/S. creatinine in a finger-prick blood drop in just 30 s. The values obtained through this device are sent to their digital platform, making it useful in remote care settings.
- b. The solution uses a smartphone-based UACR estimation to measure this ratio in primary health care settings for at-risk populations. A UACR dipstick is dipped in a urine sample collected in a small container, and subsequent color changes by the calorimetric method are captured by a smartphone camera. A machine learning-based computer vision technology estimates the semiquantitative albumin/creatinine ratio in just 60 s. Furthermore, the platform also includes clinical decision-aid tools developed based on various clinical criteria, comorbid illnesses, and the latest kidney disease-improving global outcomes (KDIGO-CKD 2024) guidelines. These tools help health care professionals to risk-stratify and treat CKD in primary health care settings.

>> Scale

a. Launched a pilot project with the National Health Mission in Andhra Pradesh in four primary health centers.

Name of founder/CEO and location

Dr. Chinta Rama Krishna DM (Nephrology), Founder Hyderabad, Telangana, India

>> Regulatory compliances

a. Currently, it is at a pilot project stage with the National Health Mission, and its validation / research will be submitted shortly.

>> Infiheal

Healo: AI coach for mental health and emotional well-being



88

The technology is proven and developed but not yet operational or applied anywhere.



Innovation Performance Score



Categorization

#Mental health disorders #Preventive and wellness measures #Advanced conversational AI, natural language processing (NLP) and large language models (LLM)

Problem statement

Globally, mental health care faces numerous challenges, including high costs, a low therapist-topopulation ratio, long waiting times, frequent misdiagnosis, outdated treatment methods, lack of centralized patient records, limited support between sessions, and social stigma, particularly among older generations. While online mental health solutions surged during COVID-19, reducing stigma and boosting demand, they failed to address critical issues like supply shortages and support for serious mental illnesses. There is a clear need for an integrated solution combining personalized therapist access with Al-driven tools to comprehensively address diverse mental health needs.

Innovation description and technological approach

Healo is an AI coach for mental health and emotional well-being. It is an anonymized AI coach that gives round-the-clock assistance, advice, and recommendations for people who cannot access therapy. It uses advanced conversational AI, natural language processing models, and large language models to profile users based on their personality traits, anxieties, motivators, and risk levels within minutes of conversation. This enables the provision of highly personalized advice, self-help recommendations, and triage services to connect high-risk cases with crisis support, moderate-risk cases with therapists, and low-risk users with self-guided resources. Healo makes mental health services accessible and affordable by leveraging AI for user profiling, personalized support, and intelligent routing to professional or community-based interventions as needed.

>> Scale

- a. 60,000+ users overall
- b. Over 10,000 engaged users

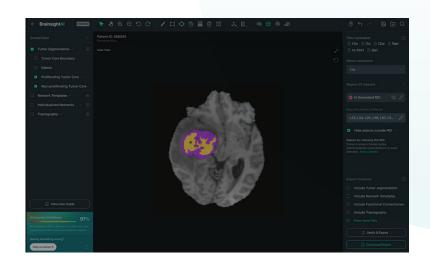
Regulatory compliances None listed by the organization

Name of founder/CEO and location Srishti Srivastava, Founder Pune, Maharashtra, India

>> BrainSightAl

Two products: VoxelBox and Snowdrop





Categorization

#Mental health and neurological disorders#Diagnostic assistance#Computational neuroscience and deep learning

Problem statement

Central nervous system (CNS) disorders place a significant strain on the health care system, affecting patients, doctors, and caregivers. Current treatment methods, relying on structural MRIs or subjective reports, are inadequate. While task-based fMRIs provide functional brain data, they are time-consuming, costly, and limited to patients who can perform tasks. Resting-state fMRIs offer similar data but are underused in clinical settings due to insufficient post-processing software, making valuable information for the diagnosis, prognosis, and surgical planning inaccessible to doctors and patients.

Innovation description and technological approach

- a. **Brainsight** uses resting-state fMRIs that are quicker and easier than task-based fMRIs. **VoxelBox**, an Alpowered platform for processing connectomics data, has been developed that enables non-invasive brain mapping to support better diagnosis and treatment of brain disorders. In this, the **Snowdrop** app complements this data with patient and caregiver-reported information, offering personalized recommendations based on brain scans, allowing them to plan care routines and supporting early interventions for mental health risks.
- b. They source data from open repositories, clinical studies, and their product **VB Explore**, using automated quality checks and image processing to train machine learning algorithms. Snowdrop also collects patient-reported data to monitor progress.

>> Scale

- a. Deployed VoxelBox in 20 hospitals and studies are being conducted with institutes like St John's Hospital and Sathya Sai Hospital.
- b. Negotiating commercial agreements with five hospitals.

Regulatory compliances

- a. ISO-13485 certified
- b. Health Insurance Portability and Accountability Act of 1996 (HIPAA) compliant and Service Organization Control Type 2 (SOC2) compliant
- c. CDSCO manufacturing license for VoxelBox
- d. In the process of applying for FDA approval for VoxelBox

Name of founder/CEO and location

Laina Emmanuel and Dr. Rimjhim Agrawal (Co-Founders BrainSightAI) Bangalore, Karnataka, India

>> Numa Health, Inc.

TRL

8

51.51

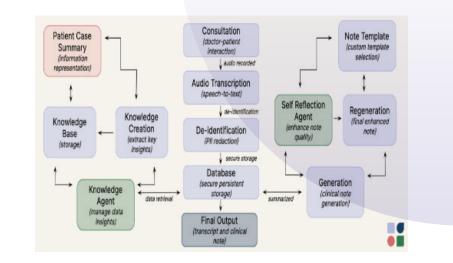
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Numa: An ambient AI assistant designed to streamline health care documentation.

The technology is proven and developed but not yet operational or applied anywhere.

Innovation Performance Score



Categorization

#Medical documentation and workflow efficiency # Speech-to-text model and large language models (LLMs)

Problem statement

The US is facing a public health crisis due to a significant shortage of healthcare providers. The average wait time for a patient to get an appointment with a healthcare provider in the US is three weeks longer than in any other country in the world. About 7.8 million people in the US live in a health care provider shortage area. A shortage of 140,000 is expected in the US by 2033.

Innovation description and technological approach

- a. Numa is an ambient AI assistant designed to streamline health care documentation. It seamlessly listens, transcribes, and synthesizes patient sessions into clinical notes, transforming hours of manual documentation into minutes. With comprehensive support for all document and template types, including patient histories, intake forms, specialist referrals, and discharge summaries, Numa allows health care workers to redirect their focus to what is most important – providing high-quality care.
- b. The hosting of the entire infrastructure is managed on AWS, utilizing the Speech-to-Text model (Whisper Large v2) and the Large Language Model (Claude Sonnet), both deployed through Amazon SageMaker. After the speech-to-text model generates the transcript of the provider-patient interaction, protected health information is de-identified and securely stored in the database. This data is then routed through the LLM for clinical note generation. The LLM is fine-tuned to produce clinical note summaries in various customizable templates based on the provider's specialty and preferred note format. Designed as a self-reflection agent, it can regenerate notes with enhanced quality upon refresh by the provider. Additionally, the model serves as a knowledge agent, retrieving patient data to manage insights from the database and create key patient information summaries for providers across sessions.

>> Scale

a. In the process of launching their beta and engaging with different provider marketplaces to set up pilot programs.

Name of founder/CEO and location

Nitya Somani, Founder India Regulatory compliances a. HIPAA compliant

>> Nivi.Inc

e-SAATHI – A chat-based decision support and referral system for pregnant women and caregivers.



28

The technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score



Categorization

#Maternal and child health
#Preventive and wellness measures
#Behavioural and personalized outreach
#Referral and adherence
#Supervised machine learning
#Large language models (LLMs)

Problem statement

Health consumers encounter fragmented care and obstacles in accessing timely information, particularly in women's health, which complicates their understanding of health information and systems. Health journeys are complex, presenting significant challenges as consumers often lack proactive engagement and personalized options for seeking care. Additionally, their unique circumstances and needs are frequently overlooked.

😵 🚽 Innovation description and technological approach

- a. askNivi uses AI and data to identify systemic challenges (affordability, availability, and acceptability) faced by consumers and apply behavioral science and integrated approaches (financing, scheduling, payments) to design and solve for those systemic challenges faced by consumers. They then deploy these solutions in goal-oriented patient engagement, referral, and adherence journeys on the askNivi patient-centered platform.
- b. As a chat platform, Nivi manages inbound messages from users, extracting subsets of this data to create a corpus that reflects user intent across various contexts, countries, and languages, in accordance with its terms of service and privacy policies. Annotators, matched to the nationality and cultural context of message authors, label these corpora with gold standard judgments of intent and topic categories. Nivi leverages these corpora to train AI classifiers using supervised machine learning and to fine-tune large language models for message classification tasks.

Scale

- a. In three districts: Guwahati, Kamrup, and Dibrugarh, 6,500 pregnant women have subscribed to askNivi.
- b. 153 public and private facilities have been enlisted and over 600 health care service providers (ASHAs, doctors, and nursing staff) have received training.

Name of founder/CEO and location

Siddhartha Goyal: Co-Founder, CEO Sudbury, MA, USA

>> Regulatory compliances

a. Compliant with data privacy and data sovereignty laws of India

>> Mobilab

Mobile-based portable blood testing device



The technology has been applied in its final form, is operational, and is in the market for the device.



Innovation Performance Score



88

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#General pathology #Diagnostic assistance

Categorization

Problem statement

Current healthcare diagnostic technologies are capital-intensive and require intensive training, leading to delays and several patients losing out on timely care.

Innovation description and technological approach

- a. Mobilab introduces a mobile-based portable blood testing device, which is affordable and easy to use. It reduces the diagnosis cost by 20 times and is available in 21 Indian regional languages.
- b. It utilizes data that has been trained on over 50,000 patient samples from diverse demographics, and different machines are used as gold standards and validated independently. It also connects with the digital ecosystem and can generate smart reports promoting interoperability.

>> Scale

a. It has been deployed in several Indian states, such as Karnataka, Telangana, Maharashtra, Chhattisgarh, Odisha, Madhya Pradesh, West Bengal, Uttar Pradesh and Bihar.

>> Regulatory compliances

- a. ISO13485
- b. ISO 9001
- c. CDSCO

Name of founder/CEO and location

Sahil Jagnani, Founder and CEO Noida, Uttar Pradesh, India

>> GoPillz AI Solutions Pvt Ltd

GoPillz: Personal Digital Care Assistant for user health care and caregiving needs

TRL 7

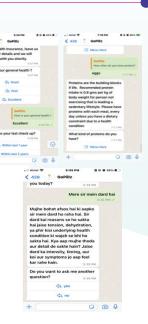
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The system prototype is near completion and has been demonstrated in an operational environment or at the pilot level.



Innovation Performance Score



Categorization

#Non-communicable diseases#Preventive and wellness measures#Small language models

Problem statement

Chronic disease management faces significant challenges, including lack of awareness, preventive care, early screening, and consistent communication. With a global burden of \$42 trillion, there is no streamlined solution to automate care journeys, increase patient engagement, or provide personalized support. This issue is compounded by low literacy levels, a growing geriatric population, and workforce challenges in health care, impacting the effectiveness of chronic disease management and overall patient outcomes.

Innovation description and technological approach

- a. GoPillz is a personal digital care assistant that uses generative AI to interact with users through conversational interfaces. It provides guidance on health care and caregiving needs, focusing on non-communicable disease (NCD) management.
- b. GoPillz leverages small language models (SLMs) to solve various use cases, including CVD, diabetes, obesity, and metabolic syndrome in NCD management and predictive models for diabetes and heart health and training models for nutritional guidance and screening. The solution uses generative AI to interact with users through various communication channels, including WhatsApp and voice. Predictive models were initially been built using data sets on Kaggle and are now being trained with a wider range of attributes. They have used SVM, RAT technique, XGboost, and Google Collab to train the SLMs.

>> Scale

a. Tested with 10,000 patients across therapeutic areas of diabetes (1780), sexual health (1971), thyroid (2092), breast cancer (2190), CML (991), rheumatoid arthritis (1470), cardiology (1989) with an improvement of 95.4% for sexual health and wellness.

Name of founder/CEO and location

Manishaa Soin, CEO New Delhi, India

>> Regulatory compliances

a. HIPAA compliant

>> Mobicare

Mobiva: An AI-powered mobile health platform designed to improve health care delivery in underserved regions.



The technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score



#Climate and health

Categorization

Problem statement

Millions of preventable deaths occur globally due to poor health care quality, especially in underserved rural areas. High maternal mortality rates and limited access to timely medical services exacerbate this issue.

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Innovation description and technological approach

- a. Mobiva is an Al-powered mobile health platform designed to improve health care delivery in underserved regions. It enhances early diagnosis, reduces preventable deaths, and optimizes resources for epidemic and disaster preparedness
- b. The platform uses AI models, including Random Forest (87% accuracy) for maternal health, Support Vector Classifier (90% accuracy) for hypertension, and Logistic Regression for diabetes and cardiovascular diseases. It provides AI-driven decision support and functions offline

>> Scale

 The platform targets health care systems in rural and disaster-prone areas such as Indonesia and the Philippines. It aims to scale through partnerships with governments, local health care providers, and NGOs

Name of founder/CEO and location

Wendy Leong, Founder Malaysia

>> Regulatory compliances

a. None listed by the organization

>> Muse Diagnostics Pvt Ltd

Taal: AI-powered digital stethoscope

trl 9 The technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score



Categorization

#Cardiovascular and pulmonary disease #Screening device

Problem statement

Cardiac and respiratory conditions are responsible for over 80% of mortality in India (and globally), as well as conditions and diseases affecting over 30% of the population worldwide. The availability of skilled doctors limits early detection. Detecting abnormal body sounds, particularly cardiac and respiratory sounds, is challenging through a traditional stethoscope and it can indicate over 100 conditions and diseases. Due to the shortage of medical professionals, including doctors, especially in rural areas, there is a gap in primary health care and public health screening services. On average, doctors are only 40% accurate at detecting these abnormal sounds.

Innovation description and technological approach

- a. Taal is an Al-powered digital stethoscope that enhances the detection of cardiac and respiratory conditions, particularly pathological heart murmurs. It leverages advanced algorithms to analyze body sounds with greater precision than human ears, significantly improving diagnostic accuracy at 90%, over double the average 40% achieved by doctors. This technology is particularly crucial in rural areas with a scarcity of medical professionals, enabling non-specialists to identify abnormalities early and refer patients for timely treatment. By providing clear, actionable insights, it can reduce misdiagnoses, prevent disease progression, and ultimately save lives, addressing a critical gap in primary health care and public health screening services.
- b. The eMurmur AI algorithm utilizes data from the cardiac auscultatory recording database (CARD) from the Johns Hopkins School of Medicine, which contains heart sound recordings from over 1200 patients, both with and without cardiac pathology. The eMurmur AI model was developed through a partnership with leading international academic institutions such as Children's Hospital Graz, Austria, and Children's Hospital Eastern Ontario, Canada and was validated through clinical trials at the Johns Hopkins School of Medicine. It was trained using advanced engineering and machine learning technology to detect heart murmurs from heart sound recordings.

>> Scale

- a. Screened over 240,000 people in two months for cardiovascular and respiratory diseases, including deployments in war zones such as Ukraine and post-disaster areas like Haiti.
- In India, screenings were conducted in states like Bihar and Odisha through telemedicine partners such as MedTel, ClinicWala, and Healthcube. Over 30% of those screened had

Name of founder/CEO and location

Dr. Arvind Badrinarayanan, Founder and CEO Bengaluru, Karnataka, India undiagnosed cardiovascular or respiratory conditions.

>> Regulatory compliances

- a. CDSCO registered and approved for sale in India. Digital stethoscopes are not classified under the CDSCO gazette notification.
- b. The software and AI are FDA 510k certified and CE marked.

>> Larkai Healthcare Pvt. Ltd

WREN, WREN REALTIME, Bluetail: Advanced Aldriven diagnostics that are affordable, portable, and noninvasive.





The technology has been applied in its final form, is operational, and is in the market.



Categorization

#Cardiovascular and pulmonary diseases #Health vital signs monitoring #Screening and diagnostic assistance

Problem statement

Delayed diagnosis accounts for 80% of all cardiovascular disease deaths worldwide, underscoring the potential for lifesaving pre-symptomatic medical screenings. Exorbitant test costs create barriers to accessible health care, particularly for individuals needing treatment. Bulky, non-portable testing devices that use outdated technologies limit the efficiency of wider medical services. Furthermore, traditional diagnostic methods limit access to high-tech alternatives due to their invasiveness or high radiation exposure.

Innovation description and technological approach

- a. The AI-driven solution addresses the issue by providing timely and accurate diagnoses through advanced technology. With the flagship product, WREN, it offers real-time monitoring of vital signs such as ECG, respiratory rate, NIBP, body temperature, and SpO2, allowing early detection of anomalies and enabling prompt intervention by health care professionals to improve patient outcomes. Additionally, Bluetail, the software product, utilizes AI to swiftly and accurately analyze chest X-rays, detecting over 15+ cardiopulmonary diseases. By leveraging AI technology, the solution streamlines diagnostics, making it more accessible, affordable, and efficient, ensuring patients receive timely care and reducing the burden of delayed diagnosis.
- b. The data was sourced from hospitals, X-ray centers, and open-source platforms. Initially, the data was shortlisted by disease type and then resized to specific dimensions. Annotations were applied for segmentations, including both semantic and instance, and for detections based on relevant findings. These annotated masks and images were subsequently used to train the model.

>> Scale

a. Deployments with over 120 customers globally.

Regulatory compliances

- a. ISO 13485:2016
- b. Extended producer responsibility (EPR) battery complaint
- c. EPR electric equipment complaint

Name of founder/CEO and location

Abhilash Chakraverty, Project Investigator and Founder Gurugram, Haryana, India

>> ONE Simulation

An Al-based CT and MRI simulator



Innovation Performance Score



Categorization

45.45

#Medical training

Interactive simulated computed tomography (CT) scan training system with real-time feedback

Problem statement

Health care professionals face limited exposure to abnormal cases due to the lack of appropriate simulators, contributing to a global shortage of skilled professionals. Existing simulator companies do not offer end-to-end training solutions, leaving gaps in comprehensive, hands-on learning experiences. This creates challenges in developing the necessary skills for improved patient care.

Innovation description and technological approach

- a. ONE Simulation is committed to delivering high-quality, immersive simulation experiences for health care professionals. Their simulators are designed to enhance training in complex scenarios and ultimately improve patient care. They offer an Interactive Simulated Computed Tomography (CT)
 Scan Training System with Real-Time Feedback, which provides a safe and controlled environment for trainees to practice scanning techniques without exposing themselves or patients to radiation.
- b. The system includes a dummy CT scanner, a mannequin, a haptic feedback system, a computing device, and a simulation computer module. It recreates realistic scenarios and offers trainees valuable real-time feedback, making it highly effective for medical trainees in the radiology field. This environment supports both learning and teaching, allowing professionals to refine their skills in a risk-free setting. The simulator uses actual patient cases from real CT scan machines, replicated through API integration into the simulation system.

>> Scale

a. Deployed the first lab at AMTZ (Andhra Medtech Zone) at Visakhapatnam, Andhra Pradesh

Name of founder/CEO and location

Khushboo and Ankur Srivastava, Co-Founders Noida, Uttar Pradesh, India Regulatory compliances Not applicable

>> Caare Healthtech Services Pvt Ltd

Care Oral AI: Empowering marginalized populations with AIdriven oral care



The technology is proven and developed but not yet operational or applied anywhere.



Innovation Performance Score



Categorization

#Dentalproblems

#Screening and diagnostic assistance

#Computer vision technology, object detection and instance segmentation with convolutional neural networks (CNNs)

Problem statement

Inaccessible and inaccurate dental diagnoses have widespread negative consequences for global health, especially in remote areas. Traditional diagnostic methods often miss subtle issues or require expensive equipment, limiting their availability. This lack of accurate and accessible dental care contributes to undiagnosed conditions, leading to more severe health complications and a higher burden on health care systems, particularly in underserved regions.

Innovation description and technological approach

- a. Caare Oral AI leverages smartphone technology and AI to address the problem. By analyzing phone camera images of teeth, Caare Oral AI empowers dentists with precise cavity and lesion detection, improving diagnostic accuracy. This not only benefits specialists in remote locations by offering AI-powered insights, but also fosters patient engagement through a user-friendly way to understand their oral health.
- b. The solution utilizes computer vision technology, specifically object detection and instance segmentation with convolutional neural networks (CNNs), for AI-powered oral disease diagnosis. To train model, Caare have employed a blend of open-source datasets from Zenodo, Mendeley Data, Roboflow and Kaggle, alongside their in-house annotated datasets will be used in future phases. Unlike traditional models that merely classify an image as containing a cavity, their solutions identify and segment each area of interest (like individual cavities), enabling precise tracking and analysis of each issue. The system currently accepts images, with potential to incorporate video analysis in future versions. Caare Oral AI offer two specialized models:
 - i. Basic model: An AI model solution to detect and mark oral problems such as cracks, caries, cavities, stains/calculus, gum disease, and ulcer/cancerous lesion.
 - ii. A comprehensive model: An AI model solution to detect and mark types of oral diseases, including gum disease type or cancerous lesion type.

>> Scale

a. Piloted and validated with nearly 100 patients and Dentists as of April 2024

Name of founder/CEO and location

Chandramouli, Founder and CEO Visakhapatnam, Andhra Pradesh, India Regulatory compliances a. ABDM enabled

Skyfire Applied Intelligence Pvt Ltd

Berry.care: An oral cancer screening app that helps in early detection



The technology has been applied in its final form, is operational, and is in the market.



Innovation Performance Score





88

Categorization

#Oralcancer #Screening #Deep learning enabled image analysis

Problem statement

Oral cancer is a growing global health concern, ranking among the top ten most common malignancies worldwide. In India alone, over 10 people die from oral cancer every hour. This alarming statistic is largely a result of the late diagnosis of oral cancer, with over 80% of cases identified at advanced stages when treatment options are limited and less effective. The primary factors contributing to this late detection include a lack of awareness about the disease, insufficient screening programs, and the social stigma often associated with cancer.

Innovation description and technological approach

- a. Atom360 has developed a solution for early detection using advanced AI. The AI algorithm can identify and segment potentially malignant disorders, such as precancerous and cancerous oral lesions, by analyzing images captured with any smartphone camera.
- b. To ensure the algorithm's high accuracy, Atom360 compiled a unique dataset of over 10,000 labeled oral cavity images sourced from various hospitals and mobile cancer screening camps across multiple states. This dataset encompasses a wide range of oral cavity conditions, capturing the diversity of oral cancer and precancerous lesions at different stages. The algorithm has been trained to recognize these lesions under varying real-world conditions, including sub-optimal lighting, obstructions, and angles, making it robust and adaptable for real-world clinical settings.
- c. The AI has analyzed over 20,420 images (from 2,042 patients) for oral potentially malignant disorders (OPMD) and oral cancer in screening camps. All images are anonymized, and the collection adheres to the ethical and scientific committee approvals from the respective hospitals for biopsy-proven cases.

>> Scale

- a. Deployed in HCG Bangalore and HCG Nagpur and screened over 3,000 individuals.
- b. Dr. Bhubaneswar Borooah Cancer Institute, Assam, and screening camps.

Name of founder/CEO and location

Reuben Fernandes, CEO Bengaluru, Karnataka, India

>> Regulatory compliances

- a. Voluntarily registered with CDSCO for the Albased oral cancer screening algorithm.
- b. The algorithm (Atom360-Proton) has been registered as a Class-A medical device.

>> RevolutionAize Pvt Ltd

Malnutrition assessment and action plan (MAAP)

A prototype is being tested in a simulated operational environment or in a highfidelity laboratory environment

38.78 Innovation Performance Score



Categorization

TRL

6

#Child nutrition #Screening solution

Problem statement

Despite numerous public health interventions, malnutrition remains a significant challenge in India, with millions of children lacking access to adequate nutrition. This problem leads to stunted growth, developmental delays, and increased susceptibility to diseases.

Innovation description and technological approach

- a. The AI-driven solution, MAAP, advances how malnutrition is addressed by providing accurate and timely assessments of children's nutritional status. Using advanced AI algorithms, MAAP analyzes anthropometric data collected by frontline health care workers, identifying signs of malnutrition with precision. This allows for early intervention and personalized nutrition guidance tailored to each child's needs. By leveraging technology to streamline the assessment process and empower caregivers with actionable insights, MAAP facilitates prompt identification and treatment of malnutrition, ultimately improving health outcomes for children in underserved communities.
- b. The model's training data was sourced from a variety of reliable sources, including public health databases, community health surveys, and clinical studies focused on child nutrition. These datasets include a broad spectrum of anthropometric measurements, dietary intake records, and health outcomes from diverse populations across various regions. Additionally, partnerships with local health care facilities, NGOs, and government agencies provided real-time data collected during routine health screenings and community outreach programs, further enriching the model's accuracy and relevance.

>> Scale

- a. Screened over 20,000+ children
- b. Saved 10 children from malnutrition
- c. Presented at UNGA and UN Nutrition at 77th Symposium, New York
- d. Piloting in 120+ Nand Ghars across several states
- e. Piloting with AMC (Ahmedabad Municipal Corporation)

Name of founder/CEO and location

Romita Ghosh, Founder and CEO New Delhi, India

Regulatory compliances

- a. The solution does not require specific regulatory approvals since it is a digital solution aimed at improving child nutrition through data collection, analysis, and intervention.
- b. The organization adheres to all applicable data privacy and security regulations to ensure the protection of user information.

>> FosterHealth AI

An AI-powered application to assist with clinical documentation and researchrelated tasks.

TRL 9

36.36

The technology has been applied in its final form, is operational, and is in the market.

Innovation Performance Score

Transcript Ø/0	Clinical Notes
Con you tell me more about your pain? Where exactly is It located and how would you describe the pain? The pain is in my lower back and it's a sharp pain. It least like a stabbing pain and it's been making it difficult for me to sit or stand for extended periods. Have you had any injury or physical activity. It hat could have acused the pain? No, I haven't doors anything out of the ordinary that could have caused the pain. Do you agerience any numbness or tingling in your legs or feet? No, I don't. Have you had any previous episodes of back pain? Yes, I have had mild episodes in the past, but they usually went away on their own. Cikay, Yull prescribe Robax and Aleve to relieve your pain. You should to crea day for a week. Thank you, bacutt. Is there anything else I should do to alleviate my pain? Yes, Joav backd avid any stremuous physical activity that could avacenable your condition. You should avoid any stremuous physical activity that could socenable. You should avoid any stremuous physical activity that could weak to check on your progress. Thank you, doctor. I apprecisite your help.	Chief Complaints Severe back pain for the past week Medical History Previous mild episodes of back pain History of Presenting Illness Shara, stabbing pain in lower back Difficulty sitting or standing for extended per No injury or physical activity that could have Medications Robox Aleve Diagnostic Tests Assessment Back pain possibly due to muscle strain or sp Plan Prescribed Robox and Aleve for one week Avoid strenuous physical activity Practice good posture Mininain a healthy weight

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Categorization

#Medical documentation and workflow efficiency

Combination of transformer architecture-based large language models (LLM) and natural language processing

Problem statement

Providers manually perform numerous repetitive documentation tasks. The high administrative burden on providers significantly impacts healthcare systems across geographies. In India, due to a low physician-topopulation ratio, providers lack the time to document clinical notes. In the US, EHR-related documentation contributes to physician burnout, negatively affecting patient interactions and work-life balance. This global issue impairs healthcare delivery and research progress.

Innovation description and technological approach

- a. The innovation addresses the administrative burden on physicians by transcribing patient encounters, thereby reducing their cognitive load. Physicians no longer need to remember details or take manual notes during interactions, allowing for more focused patient care. The application also extracts relevant information from transcripts and automatically generates structured clinical notes, reducing the time needed for EHR tasks. This streamlines the documentation process, enhancing both efficiency and digitization, particularly in low-resource settings like India.
- b. They utilize a combination of transformer architecture based large language models and classical NLP algorithms to automatically generate notes along with a review system. They also use opensource models and medical dictionaries vetted by medical practitioners to enhance the accuracy and efficiency of their technology.

>> Scale

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a. In partnership with the National Cancer Grid of India and currently running a pilot deployment in a large cancer care institute.

Name of founder/CEO and location

Anukriti Chaudhari, Project Investigator Jaipur, Rajasthan, India

>> Regulatory compliances

None listed by the organization

>> Mafami Pty Ltd Trading

Vula: Connecting public sector workers to specialists

The technology has been applied in its final form, is operational, and is in the market.

Innovation Performance Score



Categorization

88

#Medical documentation and workflow efficiency #Telemedicne platform

Problem statement

The scarcity of specialist health care professionals in low-density areas, particularly in Africa and other LMICs, severely limits access to quality care for impoverished populations. Patients often face lengthy travel and financial barriers to specialist services, leading to deteriorating health outcomes. Many conditions that could be treated at the primary level remain unaddressed, exacerbating health inequities.

Innovation description and technological approach

- a. Vula replaces outdated systems by connecting public sector health workers to specialists through a userfriendly app and web portal. By facilitating timely advice and referrals, Vula has supported over 1.6 million patients since 2014, improving health care access and outcomes in underserved communities across Africa.
- b. Vula's model leverages diverse datasets, including semi-structured patient information, unstructured chat data, and images shared between health workers and specialists. With over 45,000 dermatology cases collected since 2014, the platform trains AI solutions that cater specifically to underserved populations, enhancing the precision of diagnoses and improving health care delivery in rural and remote areas.

>> Scale

 As of April 14, 2024, Vula has registered 36,123 health workers, facilitating 1,692,106 referrals and discussions across 70 medical specialties between health workers and specialists.

Name of founder/CEO and location

Dr. William Mapham, Founder Stanley, Cape Town, South Africa

>> Regulatory compliances

 a. Vula is a data processor and helps health workers and health systems comply with South African Protection of Personal Information (POPIA), GDPR, and HIPPA.

HealthOn Innovation Showcase

>> Erudita

Erudita: Empowering sickle cell disease self-management through mobile health solutions for sub-Saharan Africa



Innovation Performance Score



Categorization

#Hematological disorders
#Sickle cell disease
#Preventive and wellness measures
#Personalised outreach
#Treatment support
#Remote monitoring
#Medication adherence

Problem statement

Sickle cell disease (SCD) affects 300,000 births annually in sub-Saharan Africa, with a median survival of 33 years. Patients face high non-adherence to medication rates, limited access to care, and frequent hospitalizations, leading to substantial financial strain (63% of household income). The existing health care system is ill-equipped to manage the complex needs of SCD patients, leading to devastating health and financial consequences for families and communities.

Solution description, technological approach, and potential impact

Erudita's mobile health (mHealth) platform supports SCD patients in sub-Saharan Africa through a mobile app and IVRS. It offers the following:

Symptom tracking: Patients log symptoms and pain.
Educational resources: Access to SCD management materials.
Medication adherence: Reminders and tracking.
Provider communication: Secure data sharing and remote monitoring.
Care coordination: Enhances provider collaboration

>> Name of founder/CEO/investigator and location

Ayyagari Vinaya Surya Vardhan India

>> Madad

Madad - Joining pieces for peace

88 Innovation Performance Score



Categorization

#Mental health disorders#Preventive and wellness measures#Treatment support#Time series and natural language processing (NLP)

Problem statement

Adolescents face significant mental health challenges due to the intense pressures of competitive academic environments, with studies showing a high incidence of depression among students in coaching centers. Many students feel overwhelmed by their responsibilities and lack support systems, with a notable stigma surrounding mental health discussions. Despite a strong interest in receiving regular mental health support, there is a critical lack of proactive and accessible mental health interventions to support students effectively and address these challenges.

Solution description, technological approach, and potential impact

Madad revolutionizes mental health care for students by leveraging AI to monitor well-being and prevent suicides proactively. Using predictive analysis algorithms, Madad collects weekly questionnaire data on students' eating habits, sleep patterns, emotional mood, and extracurricular engagement. The model analyzes trends and patterns over time, enabling early intervention through personalized wellness checks. If a decline is detected, a counselor is automatically notified for follow-up, and persistent issues prompt specialized mental health support. Madad's AI continuously refines its understanding of each student, utilizing NLP and Time Series models to personalize care, helping students manage high-pressure environments and fostering mental well-being.

>> Name of founder/CEO/investigator and location

Samira Rizvi India

>> IHME-Verbal-Autopsy-LLM

Integrating large language models into verbal autopsy workflows

63.33

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Innovation Performance Score

Categorization

#Medical documentation and workflow efficiency #Speech-To-Text (S-T-T), zero-shot classification, and text generation

Problem statement

Conducting verbal autopsies (VAs) is a labor-intensive and emotionally taxing process. It involves field data collection, response aggregation, translation, and cause classification. The process incurs significant emotional and monetary costs. Additionally, the open narrative sections are often underutilized in computer-coded classification, and manual analysis of large samples, such as 12,000 responses, is impractical. This highlights the need for efficient, scalable solutions.

Solution description, technological approach, and potential impact

IHME – VA project leverages the Hugging Face transformer platform, incorporating speech-to-text (S-T-T), zero-shot classification, and text generation:

- **Speech-to-text:** It utilizes Whisper from OpenAI for near real-time transcription and translation of interviews in 98 languages, improving response fidelity.
- Text generation: It employs GPT-4 for robust narrative generation and analysis.
- Zero-shot classification: It uses BART-large-mnli from Facebook to classify causes of death from transcribed narratives.

The system enhances VA administration by enabling immediate translation, analyzing existing audio files, and refining cause-of-death classification, all the while allowing flexibility to integrate new models.

>> Name of founder/CEO/investigator and location

Sameer Ali The United States

>> VaxiCool Innovators

Al-enhanced sustainable cold chain solutions for vaccines in India



Categorization

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#Vaccine supply chain optimization

Problem statement

India's diverse climatic conditions and unreliable power supply disrupt cold chain systems, which are essential for preserving vaccine efficacy and medical supplies. These challenges are particularly acute in remote and underserved areas, leading to compromised public health outcomes due to the degradation of temperature-sensitive vaccines and medicines, ultimately hindering effective health care delivery and disease prevention.

Solution description, technological approach, and potential impact

Vaxi Cool Innovator's solution leverages AI to optimize vaccine storage temperatures in cold chain systems, even in regions with unreliable power supplies. By processing real-time data, AI algorithms predict maintenance needs and optimize energy usage, ensuring consistent temperature control across varying climatic conditions. The system integrates with existing infrastructure for minimal disruption and utilizes renewable energy sources to enhance reliability. This approach creates an efficient, scalable cold chain infrastructure that reduces energy consumption, ensures the efficacy of vaccines and medical supplies, and improves health care delivery in underserved areas.

>> Name of founder/CEO/investigator and location

Arundhati Bhatia India

>> GEORISK

Mapping access to mother and child health services using a geographical risk stratification model



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Categorization

#Maternal and child health #Risk stratification #Resource allocation and intervention planning #GIS and deep learning

Problem statement

India's efforts to reduce maternal and child mortality and achieve universal health coverage face significant challenges due to geographic barriers such as challenging terrains, poor infrastructure, and limited skilled health personnel, particularly in remote and hilly regions. Despite initiatives like 'Ayushman Bharat', these issues result in inadequate health care access and services for maternal and child health in rural and tribal areas.

Solution description, technological approach, and potential impact

The Georisk solution uses GIS and deep learning to assess access to maternal and child health (MCH) services in India's challenging terrains. It integrates individual and community data with high-resolution imagery from drones to accurately identify settlements and infrastructure. By modeling these factors and calibrating with BharatSIM, the solution improves health care access assessment in remote areas, enhancing the targeting and effectiveness of interventions.

Name of founder/CEO/investigator and location Dr. Rohan Michael Ramesh India

>> The Spartans

Deep learning-based liver lesion segmentation: A preparatory attempt for early liver tumor detection and treatment planning in Rwanda.

58.33

28

Categorization

Innovation Performance Score

#Liver cancer #Diagnostic assistance #Deep learning enabled image analysis

Problem statement

Liver cancer is a critical health issue in Africa, with a higher prevalence in men. Diagnosing this condition is challenging due to image variability and artifacts. It accounts for 1.22% of deaths in Rwanda, with over 46,000 new cases annually. Delays in early detection impact patient outcomes. Our research aims to develop an Al-automated model (ResNet34-UNet) to enhance early detection of liver lesions. This improves diagnostic accuracy and patient prognosis.

🖉 💿 Solution description, technological approach, and potential impact

This innovative solution uses the ResNet34-UNet model for liver tumor segmentation in Rwanda, where liver cancer is a major health issue. By pre-processing CT images for enhanced liver visibility and applying ROI masks, the model combines U-Net's spatial detail capture with ResNet34's deep feature learning. Trained with Binary Cross-Entropy and Dice Loss and optimized with Adam, the model employs batch normalization and dropout to prevent overfitting. It achieved a Dice Coefficient of 0.98 and IoU of 0.97, surpassing previous models in accuracy. This advanced AI approach enhances liver tumor detection, improving diagnosis and treatment planning.

>> Name of founder/CEO/investigator and location

Diane Mugunga Diane: Rwanda; Damilare: Nigeria

>> DreamTeam

E-lysia is a social networking platform designed to enhance personalized biopsychosocial support for seniors.





Categorization

#Geriatric health #Preventive and wellness measures #Health education # Adaptive content curation model (ACCM) and natural language processing (NLP)

Problem statement

Senior citizens with low income and limited education face barriers in accessing and understanding health care information. They often experience poor health literacy, social isolation, and chronic conditions, which make it more difficult for them to manage their health effectively and seek the necessary support they need.

Solution description, technological approach, and potential impact

E-lysia is a social networking platform designed to enhance personalized bio-psychosocial support for seniors. It connects users to support groups, moderated forums, and interactive challenges, such as health quizzes and activity logging. The platform uses an advanced AI-driven content recommendation system called the ACCM, which provides tailored, easy-to-understand, and scientifically accurate health information. E-lysia also incorporates NLP to simplify medical terminology, making health information accessible to users with varying levels of medical literacy.

Name of founder/CEO/investigator and location Nadia Deville-Stoetzel Canada

>> MESH

Mesh: designed to address menstrual health by fostering open conversations and breaking taboos



Categorization

#Menstrual health #Preventive and wellness measures #Health education

Problem statement

Adolescents often experience confusion and misinformation about menstruation due to a lack of open communication and societal stigma. This gap leaves them with unanswered questions, as seen in the high online search volume for menstrual health information. This highlights the urgent need for accessible, accurate, and stigma-free education on menstrual health for all genders.

😵 💿 Solution description, technological approach, and potential impact

MESH is a digital initiative designed to address menstrual health by fostering open conversations and breaking taboos. It provides a platform for adolescents to ask unspoken questions, builds a supportive community, and generates insights to inform national policy and interventions. MESH offers a replicable and adaptable format that surfaces hidden issues, aids in designing targeted educational campaigns, and builds a comprehensive narrative on menstrual health.

Name of founder/CEO/investigator and location Nirmala Nair India

>> Heart Health Analyzer

Innovation

Performance Score

Heart Health Analyzer: It is a personalized wearable bioimpedance-based system and method for congestive heart failure screening



28

Categorization

#Cardiovascular disease # Screening and monitoring device

Problem statement

Congestive heart failure (CHF) is a major public health issue, causing 17.9 million deaths annually. With over 500,000 new patients diagnosed each year, CHF exacerbates fluid leakage in the thoracic region. The late onset of symptoms often leads to delayed diagnoses and high mortality rates. Patients often experience severe symptoms only after the condition has progressed, resulting in prolonged hospital stays and increased healthcare costs.

Solution description, technological approach, and potential impact

The Heart Health Analyzer is an innovative wearable system designed for the early detection and continuous monitoring of CHF. The device features a flexible, adjustable belt equipped with multiple electrodes that provide consistent bioimpedance readings, detecting early signs of fluid accumulation. Integrated with an Albased mobile app and secure online portal, it allows real-time data monitoring and alerts, thereby enhancing patient management. This system improves patient outcomes by enabling timely medical intervention, reducing hospitalizations, and lowering health care costs.

>> Name of founder/CEO/investigator and location

Manender Yadav India

70

>> Vax.Al

Vax.Al utilizes state-of-the-art Band T cell epitopes predictor tools and in-vitro data to predict the efficacy of vaccines accurately.



28

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Categorization

#Health system strengthening#Vaccine development and testing assistance#Machine learning models like Support Vector Machines and Generative AI

Problem statement

Traditional vaccine testing methods are often inefficient, costly, and heavily dependent on animal models and clinical trials. This reliance causes delays in vaccine development and deployment. Accurately predicting vaccine efficacy remains difficult due to the complexity of the human immune system, hampering timely pandemic responses and putting immense pressure on pharmaceutical companies and governments to develop effective vaccines quickly.

Solution description, technological approach, and potential impact

Vax.Al aids vaccine development by utilizing advanced Al technologies to accelerate and improve vaccine testing. Through B and T cell epitope prediction algorithms, Vax.Al analyzes antigen sequences and molecular interactions to predict vaccine efficacy with high accuracy. This innovative approach identifies the most immunogenic epitopes, minimizing reliance on costly and time-consuming clinical trials. By integrating in-vitro experimental data for validation, Vax.Al refines predictions to ensure reliability. Leveraging machine learning models like support vector machines and exploring generative Al techniques, the platform optimizes resources, reduces development costs, and enhances vaccine effectiveness. This offers pharmaceutical companies and governments a faster, more efficient solution.

Name of founder/CEO/investigator and location Ruchir Sahni India

>> Cancercops

Cancercops: Empowering communities with AI-driven cancer risk prediction, personalized screening schedules, early detection, and prevention.



Categorization

#Cancer #Screening #Risk stratification

Problem statement

India faces a high incidence of preventable cancer deaths, with approximately 27 million cases. Despite advancements in health care, 61% of cancer patients are diagnosed at advanced stages. This results in poor prognoses and significant economic losses.

Solution description, technological approach, and potential impact

CancerCops is an Al-powered solution designed to reduce preventable cancer deaths through early detection and personalized prevention strategies. It uses machine learning for risk stratification by analyzing lifestyle, medical history, and genetic data to categorize individuals by cancer risk. Deep learning models predict individualized cancer risks, integrating data from multiple sources, including genomic and environmental factors. The system also optimizes personalized screening schedules, ensuring timely detection and intervention. By empowering users with actionable insights, CancerCops aims to improve health outcomes and reduce the economic burden associated with late-stage cancer diagnoses.

>> Name of founder/CEO/investigator and location

Dr. Saurabh Jain India

72

>> Artimed

Al-enhanced comprehensive data aggregation platform



Categorization

#Medical datasets platform

Problem statement

Health care innovators struggle with accessing high-quality, anonymized medical data, leading to delays in developing AI-based diagnostic tools. The disconnection between health care providers and innovators results in long wait times for data, poor data quality, and inefficient operations, which hinder innovation and delay improved patient care.

Solution description, technological approach, and potential impact

Artimed provides a comprehensive data aggregation platform that collects, anonymizes, and classifies medical data for health care innovators. Using advanced AI algorithms and OCR, it creates a searchable virtual library of high-quality data. This streamlines the process for innovators, reduces administrative burdens on data providers, and accelerates medical innovation, ensuring faster development of diagnostic solutions.

>> Name of founder/CEO/investigator and location

Veer Parikh India

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>> PoshanTech

NAMOPoshtik: An Al-powered Poshan tracker with a speech-based data entry model



28

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Categorization

#Newborn, adolescent, and maternal nutrition#Medical documentation and workflow efficiency#Treatment support

Problem statement

In India, the Anganwadi workers (frontline workers) face significant difficulties with data entry in the Poshan Tracker app. This app is crucial for monitoring the nutrition needs of newborns, their mothers, and adolescent girls. The existing manual data entry process is cumbersome and prone to errors, making it challenging to maintain accurate and timely records. This problem impedes the efficient delivery of nutrition services and effective tracking of health outcomes.

Solution description, technological approach, and potential impact

The Poshan tech solution leverages an NLU-based speech-to-text model integrated with an ensemble model for data analysis to improve nutrition and health outcomes for women and children. Anganwadi workers can use voice-based input through the Poshan tracker app, converting speech to text, storing data, and generating insights. The system predicts malnutrition risks, anemia, and other conditions, enabling personalized meal plans and interventions to address stunting, underweight, and related health issues effectively.

>> Name of founder/CEO/investigator and location

Dr. Kadambari K V India

>> Sthanik Malaria Al

Sthanik Malaria AI: A context-driven and data-enabled tailored intervention planning for malaria control in high-risk districts of Bangladesh



Innovation Performance Score



Categorization

#Vector borne diseases
#Malaria
#Surveillance and outbreak investigation
#Resource planning and allocation
#Natural language processing (NLP) and machine learning

Problem statement

Malaria control in Bangladesh's high-risk districts is impeded by a lack of detailed, district-specific data and the underutilization of diverse information sources, including research reports, news, social media, and community reports. This results in an insufficient understanding of local risks and trends, limiting the effectiveness of targeted interventions.

Solution description, technological approach, and potential impact

Sthanik Malaria AI addresses this challenge by providing context-specific insights through data analysis. By integrating NLP and machine learning, the platform will generate dynamic risk maps, tailor intervention strategies considering local demographics, cultural factors, and health resources and optimize resource allocation based on predicted needs.

>> Name of founder/CEO/investigator and location

Sazid Ibna Zaman (Project lead) Bangladesh

>> CareOll

CareOll: Revolutionizing health advocacy and literacy with AI-ML enhanced fact verification and dynamic data-driven patient storytelling platform



20

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Innovation Performance Score

Categorization

#Prevention and wellness measures #Health education

Problem statement

India faces a severe public health challenge with rising diabetes cases and misinformation. Patients and caregivers grapple with stigmas, high out-of-pocket costs, and emotional distress. The lack of structured patient advocacy and credible information exacerbates these issues, leaving communities vulnerable to false claims and inadequate support in managing their conditions.

Solution description, technological approach, and potential impact

CareOII is strategically designed using the ecological model to operate across individual, interpersonal, organizational, community, and societal levels. By merging AI-generated personalized graphics with reputable medical data, the platform enables users to create authentic, data-driven stories. These stories, rich in accurate disease-related information, can be published as educational material by health care institutions and NGOs. Users benefit from incentives, personalized solutions, and access to advocacy tools. For organizations, CareOII offers an interactive dashboard for impact monitoring, corporate initiatives support, and a fact-checker feature to address misinformation, allowing professionals to ensure content accuracy.

>> Name of founder/CEO/investigator and location

Mridula Kapil Bharga India

>> MindMappers

Developing next-generation diagnostic tools for major depressive disorder using transcriptomics and artificial intelligence.



Innovation Performance Score



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Categorization

#Mental health disorder#Depression#Screening and diagnostic assistance#Treatment support

Problem statement

Major depressive disorder (MDD) is often misdiagnosed and inadequately treated due to subjective diagnostic methods. This results in delayed care, prolonged suffering, and increased societal costs. There is an urgent need for objective, personalized diagnostic and therapeutic approaches that consider individual genetic and biochemical factors to improve treatment outcomes and accessibility.

Solution description, technological approach, and potential impact

Mind Mapper's solution is an advanced Al-driven diagnostic tool for MDD, combining multi-omics data with real-time interactions. It features an Al-powered avatar for engaging user data collection and employs facial recognition and voice analysis to assess emotional states. By integrating these data with biomolecular profiles, the tool delivers personalized treatment plans. The Al system continuously refines its accuracy and recommendations based on user interactions, aiming to improve diagnosis and treatment efficiency for MDD.

>> Name of founder/CEO/investigator and location

Divya India

>> Manodayam

Artificial intelligence-powered mental health conditions using vocal biomarkers as a source of samples



Innovation Performance Score

88

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#Mental health disorders #Preventive and wellness measures

#Treatment support

Categorization

Problem statement

With 10% of the global and 14% of the Indian population suffering from mental health issues, the current system faces significant challenges, including a severe shortage of mental health professionals (1:6 per 100,000), steep consultation costs, centralized services, cultural biases, reliance on medication, and prevalent social stigma.

Solution description, technological approach, and potential impact

Manodayam addresses key mental health challenges with a comprehensive digital platform designed to overcome stigma, episodic care limitations, and accessibility issues. It offers continuous data analysis for improved problem assessment and integrates diverse digital therapies, including yoga, meditation, and sleep inducement techniques. The platform provides a language-agnostic solution accessible anywhere, enhancing productivity and efficiency. It also features a holistic approach to mental health care, breaking down information silos through integrated research and development. By utilizing Al/ML for voice markers and psycho-analytical data, Manodayam enables precise, preventative mental health support, making it available to a broader audience.

Name of founder/CEO/investigator and location Sanjay Bhardwaj India

>> Comp Crew

Prenatal care companion: A personalized web tool for maternal health monitoring



28

Innovation Performance Score

Categorization

#Maternal and child health #Preventive and wellness measures #Health parameter monitoring

Problem statement

Pregnant women often lack efficient means to monitor and optimize their nutrition, health status, and water intake, which can result in suboptimal prenatal care and increased health risks for both mothers and babies. Inadequate tracking and guidance during pregnancy contribute to complications such as gestational diabetes, preterm birth, and low birth weight, underscoring the pressing need for personalized maternal health support systems.

😵 💿 Solution description, technological approach, and potential impact

Compcrew's innovative solution entails the creation of a user-friendly web tool tailored for pregnant women. It will enable users to monitor various parameters including nutrition, health status, water intake, and other relevant factors essential for maternal well-being. Through personalized recommendations and educational resources aligned with evidence-based practices, the tool aims to empower expectant mothers to make informed decisions and adopt healthier lifestyle choices. By facilitating proactive self-care and promoting adherence to prenatal guidelines, the tool seeks to mitigate the risk of pregnancy complications and enhance overall maternal and fetal health.

>> Name of founder/CEO/investigator and location

Balusu Sai Sriyuktha India

>> Epilectra

Epilectra: An AI-powered clinical diagnosis of epilepsy and electroencephalogram (EEG) interpretation



28

Categorization

#Non-communicable disease#Neurological disorder#Epilepsy#Diagnostic assistance#Large language models (LLM)

Problem statement

India faces a critical shortage of neurologists, leaving millions with undiagnosed epilepsy, particularly in rural areas. This diagnostic gap results in delayed treatment, increased health care costs, preventable mortality, and significant socioeconomic burdens, including school dropouts and perpetuated poverty. Undiagnosed epilepsy remains a pressing public health issue with severe health and economic consequences.

Solution description, technological approach, and potential impact

Epilectra's solution is an AI-based epilepsy diagnostic tool combining a LLM with EEG analysis software to enable accurate diagnosis without a neurologist. The LLM, informed by expert input and medical literature, guides health care workers in patient assessment, generating preliminary diagnoses and suggesting epilepsy subtypes. Simultaneously, the EEG software uses machine learning to detect subtle pathological waveforms. This integrated approach ensures timely, precise diagnosis by merging patient data with advanced EEG analysis, reducing the need for specialists and improving health care access, especially in underserved regions.

Name of founder/CEO/investigator and location Dhruv Advani India

>> Dr.Techbees

AI-based clinical decision support system (CDSS-NCD) for managing noncommunicable diseases (NCDs) at the primary care level. It is also a health service provider (HSP) integrative tool in Ayushman Bharat Digital Health Mission.



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Innovation Performance Score

Categorization

#Non-communicable diseases#Treament support#Clinical decision making

Problem statement

India's primary health care system faces a significant gap in diagnosing and managing non-communicable diseases (NCDs) due to limited treatment guidelines, knowledge, and skills among health care providers. This leads to inconsistent care at the grassroots level, especially in health and wellness centers and primary health centers, resulting in poor health outcomes and an increasing burden of NCDs nationwide.

Solution description, technological approach, and potential impact

Dr.Techbees machine learning-based clinical decision support system (CDSS) assists primary care workers in prescribing medications for NCDs by offering personalized recommendations based on patient profiles and guidelines. It monitors chronic conditions such as diabetes and hypertension, integrating patients from secondary and tertiary care. The CDSS analyzes patient data and medical literature to provide evidencebased guidance for medication, enhancing care quality and outcomes. By streamlining prescription and monitoring, it reduces system burden and continuously evolves to deliver advanced, personalized health care.

>> Name of founder/CEO/investigator and location

Dr. Thamizhanban A India

>> ELEANOR1

Smart One Health Sentinel Alert System

4.44 Innovation Performance Score

88

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Categorization

#One health

#Surveillance and outbreak investigation

#Resource planning and allocation

#Geographic information systems (GIS), web scraping, and natural language processing (NLP)

Problem statement

The lack of integration between human, animal, and environmental health sectors hinders effective surveillance of emerging diseases. Separate systems, differing data formats, and privacy concerns complicate data sharing, creating gaps in monitoring human, zoonotic, and environmental health risks. This fragmentation highlights the urgent need for an AI-supported integrated surveillance system to enhance early detection and response capabilities across sectors.

Solution description, technological approach, and potential impact

The One Health AI surveillance system addresses the critical need for integrated health monitoring by uniting data from human, animal, and environmental sectors. Leveraging geographic information systems (GIS), web scraping, and natural language processing (NLP), the system gathers and standardizes data across sectors, enabling real-time analysis and early detection of emerging threats. Al-driven risk assessment models, anomaly detection, and spatial data integration enhance the system's ability to predict and respond to health risks. Automated reporting and dashboards provide stakeholders with actionable insights, improving global health security, and optimizing resource allocation.

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