Name: Upasana Pradhan & Prameya Mohanty

Class: XI

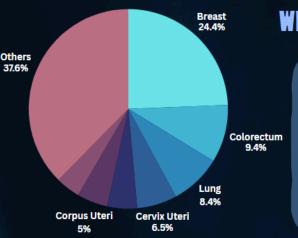
School: Delhi Public School, Rourkela

Insightful Wellness FEMCARE



SDG #03: Good Health and Well Being

Explore FemCare: Your comprehensive solution for early detection, education, and community support in women's health.

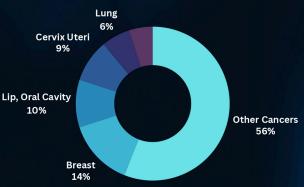


WHY DOES IT MATTER?

- India reports over 123,000 new cases of cervical cancer annually, contributing to about 30% of the global burden.
- Nearly 60% of breast cancer cases in India are diagnosed at stage III or IV, leading to higher mortality rates.
- Most cases of Ovarian Cancer (62%) are diagnosed at Stages III and IV, with a lower survival rate of 28%.
- PCOS affects approximately 8-22% (reported) of women in India and is associated with various long-term health issues including infertility and metabolic disturbances.

THESE CHALLENGES IMPACT THE LIVES OF THOUSANDS OF WOMEN...

Cervical cancer results in approximately 342,000 deaths each year worldwide.
Globally, cervical cancer accounts for an estimated 604,000 new cases annually.



Breast cancer became the leading cause of global cancer incidence in 2020, with an estimated 2.3 million new cases, representing 11.7% of all cancer cases.

AI ENABLED SOLUTION

- 1. Early Diagnosis and Management: Advanced algorithms for early detection and effective disease management.
- 2. Accurate Risk Assessment: Sophisticated tools for precise risk evaluation and timely interventions.
- 3. Educational Resources: Comprehensive health information and latest research updates for users.
- 4. Community Support: Interactive forums for shared experiences and expert guidance.
- 5. Global Health Enhancement: Promoting early detection and informed decisions for better health outcomes.

WORK DESCRIPTION

Our project focuses on leveraging AI for early detection of Cervical Cancer,
Ovarian Cancer, Breast Cancer and PCOS among women. Through a userfriendly interface, individuals input symptoms for accurate classification and
personalized insights.

MAGNITUDE OF IMPACT!

FemCare can reduce the average diagnosis delay from over 12 weeks to less than 6 weeks and breast cancer mortality rates from 10.6% to 7%.

Empower 150 million urban women with up-to-date health information, potentially increasing preventive screening uptake by 40%.

Potentially lower cervical cancer mortality rates globally from 342,000 to 250,000 annually. FemCare can extend diagnostic tools to over 500 million women.



CERTIFICATES AND RECOGNITIONS

Winner of CBSE-Intel Al Student Community Challenge of the Year, 2021.

Winners of G20 Jan Bhagidari Youth Fair 2023 conducted by the FTBI Centre, NITR.

Finalists of the vivolgnite 2023 Technology & Innovation Awards.

Finalists of the 1M1B India Al Youth Awards, 2024

Published several Blog Posts on the Al Student Community Platform.



JUDICIOUS USE OF AI TOOLS

We used Al tools judiciously and innovatively by integrating data analytics for early disease detection, natural language processing for userfriendly interfaces, and machine learning for personalized health recommendations, enhancing the application's accuracy and usability.



LEARNING EXPERIENCE

Through our research and coding efforts, we gained valuable insights into the complexities of gynecological diseases and the critical need for early diagnosis. This project enhanced our understanding of medical data, patient needs, and the importance of accessible healthcare solutions.