

## PREDICTING LUNG CANCER: HARNESSING HISTORY, SAVING LIVES

Mason's innovative predictive model leverages a patient's medical history to identify those at high risk of developing lung cancer, providing an efficient and low-cost alternative to traditional screening methods. Using data from over a decade of patient records, this model outperforms many existing methods by analyzing patterns in non-respiratory illnesses, social factors, and other conditions. This advanced screening tool is particularly beneficial for underserved populations, addressing racial disparities in lung cancer detection. With high accuracy and minimal disruption to clinical workflows, this model offers a groundbreaking approach to lung cancer screening.

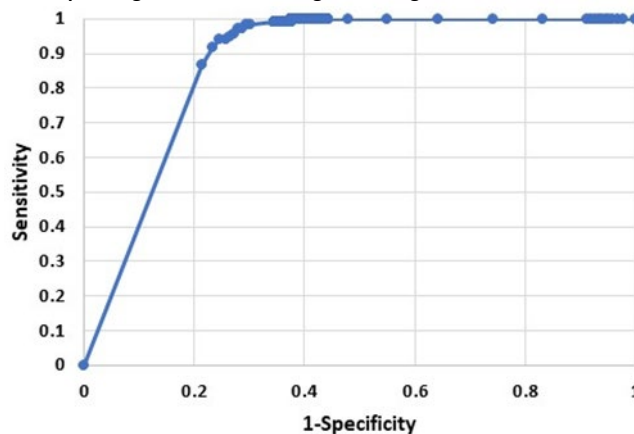
### Key Features

- **Data-Driven Prediction:** Utilizes comprehensive medical histories, identifying risk patterns not captured by traditional screenings
- **Proven Accuracy:** Achieves 87% accuracy in predicting lung cancer, validated by clinical studies
- **Cost-Efficient Screening:** Relies on existing patient data, eliminating the need for costly diagnostic tests
- **Non-Invasive:** Reduces patient exposure to unnecessary radiation compared to low-dose CT scans
- **Health Equity Focus:** Tailored for diverse populations, addressing health disparities, especially among minority groups
- **Scalable Solution:** Can be implemented in a wide range of clinical settings with minimal disruption to current practices

### Benefits

- **Early Detection with Existing Data:** Identifies lung cancer risk early using readily available medical history, reducing the need for costly tests
- **Bridges Health Disparities:** Provides a more inclusive screening tool, improving access for underserved populations

Receiver Operating Curve for Predicting Later Lung Cancer from Medical History



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