



Mobile application to analyse and reduce lifestyle cancer risk

Group 3 Members

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Introduction

- By 2020, **One out of Two** people in Ireland will develop cancer during their lifetime [1].
- In Ireland almost 45,000 new cases of cancer are diagnosed each year. This means that one person is diagnosed with cancer every 3 minutes.
- **Four out of Ten** cancers can be prevented through lifestyle changes.
- Early prediction of cancer based on the life style can reduce these figures.

Cont...

Ireland

Cancer in Ireland in 2020:

45,753
new cases

including:



2,753
Lung



2,819
Bowel



3,704
Breast



3,890
Prostate



13,311
Skin

The impact of your support in 2020:



7,662

nights of Night Nursing provided nationwide to allow patients to spend their final days at home



11,950

volunteer drives to bring patients to and from chemotherapy safely



8,905

counselling sessions provided through our remote counselling service






24,606

people helped by our Support Line and Daffodil Centre nurses



If you have any questions,
Freephone 1800 200 700 for
our Support Line or email
supportline@irishcancer.ie

 @IrishCancerSociety
 @irishcancersociety
 @IrishCancerSoc

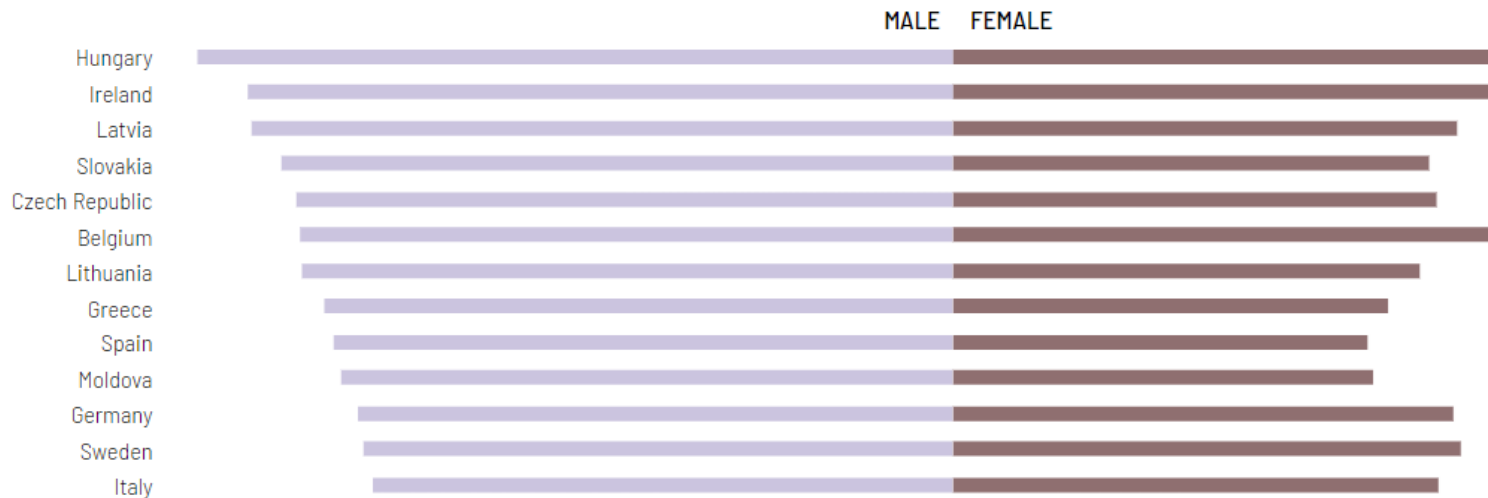


Irish Cancer Society



Life Risk due to Cancer

Lifetime risk (%) of a cancer diagnosis in selected European countries, by sex



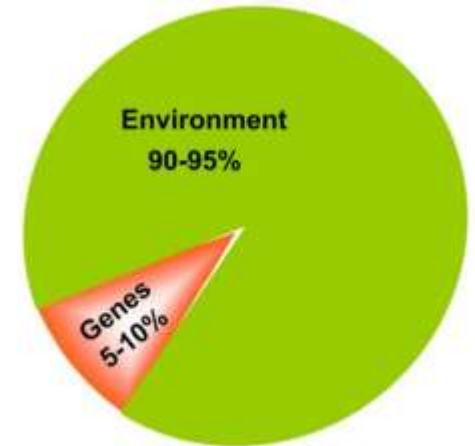


Value Proposition

- To reduce number of cancer cases by personalised lifestyle suggestion through digital services.
- Improve country economy.
- Avoid pain and medical expenses over cancer.

Motivation

- **Cancer** is the second leading cause of death globally, and is responsible for an estimated **9.6 million** deaths in 2018.
- Early stage prediction can help to prevent the cancer.
- High digital literacy.





Problem Statement

Develop an application to predict the chance of getting cancer to prevent the cancer in the early stages using the artificial intelligence and life style data.



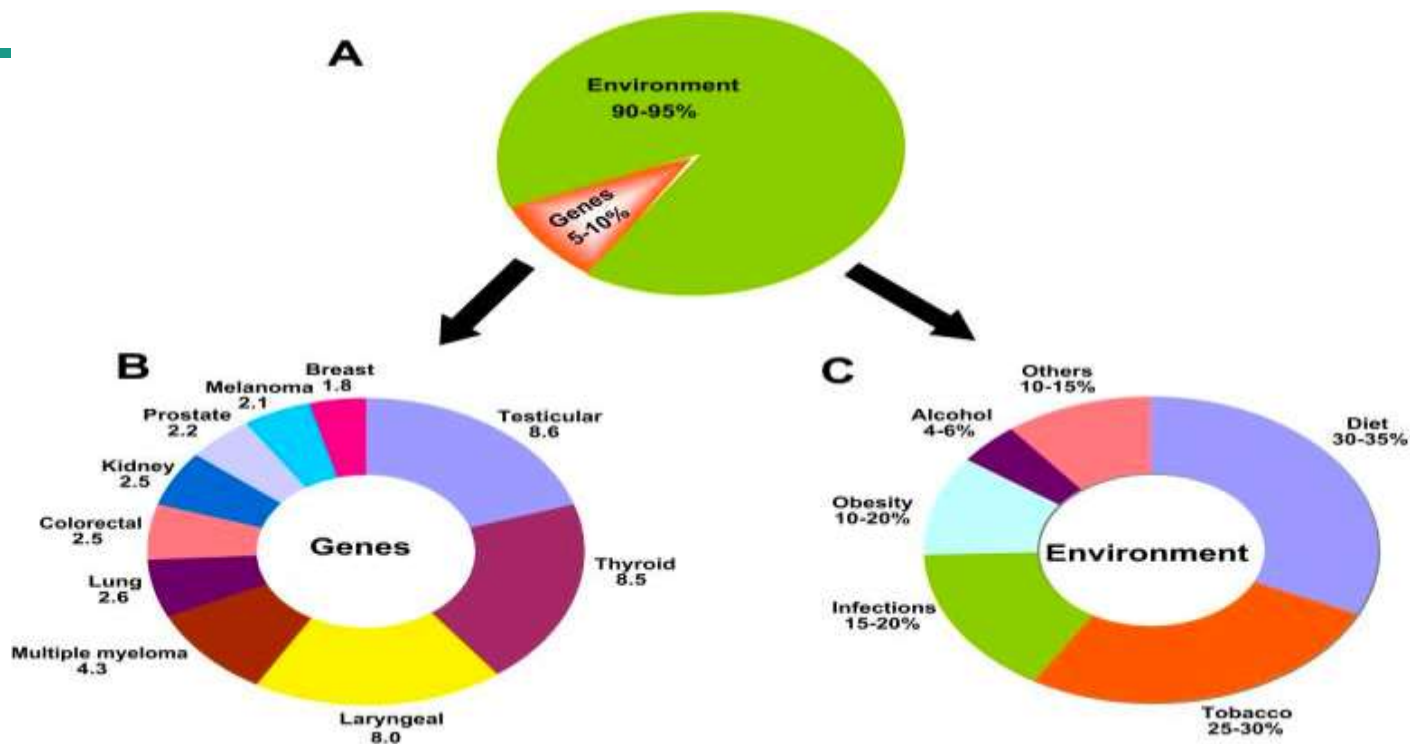
Methodology



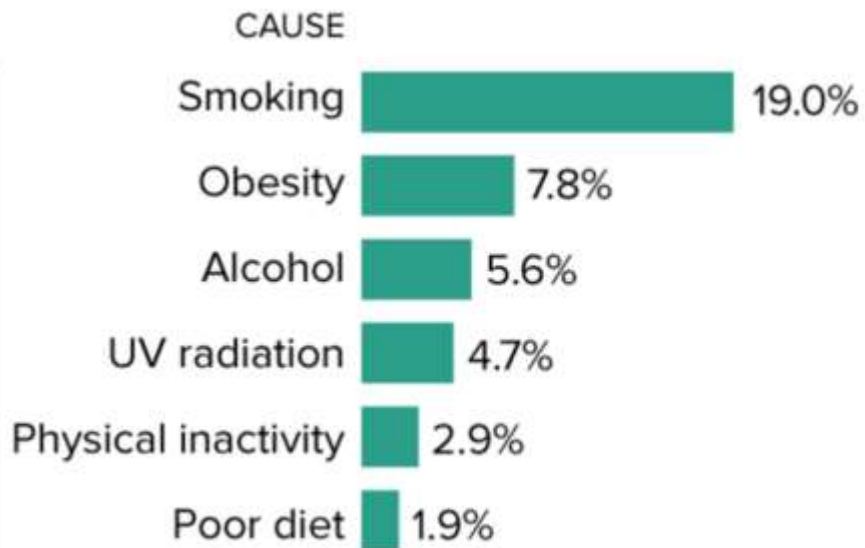
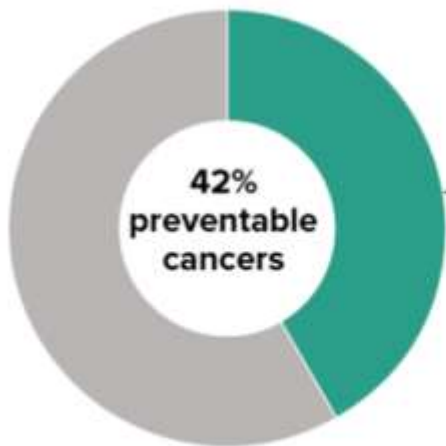
- **Step 01**
Data Collection from Studies
- **Step 02**
Preprocessing
- **Step 03**
Rules

- **Step 04**
Artificial intelligence for Pattern Mining
- **Step 05**
Feedback and Testing
- **Step 06**
Application

Rules



Anand, Preetha et al. "Cancer is a preventable disease that requires major lifestyle changes." *Pharmaceutical research* vol. 25,9 (2008): 2097-116. doi:10.1007/s11095-008-9661-9.





Target Segments

- Cancer Hospitals
- General Public
- Educational Institutes



Cost Structure and Earnings

| No. | Expenditures | Cost(euros) |
|-----|-------------------------|-------------|
| 1 | Software Infrastructure | 20,000 |
| 2 | Wages | 40000 |
| 3 | Operationsl Expenses | 1000 |
| 4 | Sales and Marketing | 2000 |
| | Total | 63000 |

| |
|----------------------------|
| Earnings |
| Playstore Targeted segment |



Revenue Streams

- 1) Government Health Agency(HSE)
- 2) Irish Cancer Foundation



References

- 1) Anand, Preetha et al. “Cancer is a preventable disease that requires major lifestyle changes.” *Pharmaceutical research* vol. 25,9 (2008): 2097-116. doi:10.1007/s11095-008-9661-9.
- 2) <https://www.nbcnews.com/health/cancer/fresh-look-cancer-shows-smoking-obesity-top-causes-n822836>
- 3) <https://canceratlas.cancer.org/the-burden/europe/>



Thank You!