Model Status

Poisson GLM
Loaded

XGBoost Loaded

🔧 Enter Input Parameters

📅 Year

2021 ⌄

🚻 Sex

Female ⌄

🧬 ICD10 Diagnosis

All circulato… ⌄

🏥 Admissions Count

5000   − +

💊 Total Prescriptions

250   − +

🚬 Smoking Prevalence (%)

20.48

0.00   100.00

💰 Tobacco Price Index

120.00   − +

🩺 Hybrid Smoking-Related Fatalities Predictor

This app automatically selects the best model depending on the ICD10 Diagnosis type:

- 💬 **Poisson GLM Model** → used for `All respiratory diseases` , `All cancers` , `All circulatory diseases` .
- ⚡ **XGBoost Regression Model** → used for all other diagnosis categories.

📋 Input Summary

	Year	Sex	ICD10 Diagnosis	admissions_count	prescriptions_total	smok_prev	Toba⸱
0	2021	Female	All circulatory diseases	5000	250	20.48	

🚀 Predict Fatalities

🧩 Predicted Fatalities: 48,155 (Poisson GLM)

📈 Model-Based Visualization

🔍 Sensitivity of Poisson GLM to Smoking & Admissions

Impact of Smoking & Admissions on Predicted Fatalities (All circulatory diseases)