

# Doctor Visit Analysis Insights

## Dataset Overview:

- **Total Records:** 5,190
  - **Columns:** 13, including visits, gender, age, income, illness, reduced activity, health, insurance types, and chronic illness indicators.
  - **Key Data Types:**
    - Numeric: visits, age, income, illness, reduced activity, health.
    - Categorical: gender, private insurance, freepoor (low-income insurance), freerepat (government insurance).
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## Key Findings:

### 1. Illness Count Distribution:

- Majority of individuals had 1 illness (1,638 cases).
- Significant cases with no illness (1,554).
- Chronic illnesses (4 or 5) were less frequent but impactful.

### 2. Income Analysis:

- **Median Income:** Approximately 45%.
- High-income patients (above 65%) had fewer doctor visits.
- Patients with lower income tended to visit doctors more frequently.

### 3. Gender-Based Analysis:

- Female patients reported more days of reduced activity due to illness compared to males.
- On average:
  - Males: Fewer reduced activity days.
  - Females: Higher health impairment scores.

### 4. Insurance Coverage:

- **Private Insurance:**
  - Yes: ~70% of patients.
  - No: ~30% of patients.
- **Government Insurance (due to low income):**
  - Yes: ~20%.
  - No: ~80%.
- **Government Insurance (old age or disability):**
  - Yes: ~10%.
  - No: ~90%.

## 5. **Correlations:**

- Strong relationship between **illness count** and **reduced activity days**.
  - Moderate negative correlation between **income** and **doctor visits**.
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## Visual Highlights:

1. **Scatter Plot:** Demonstrates the inverse relationship between income and visits.
  2. **Pie Charts:** Illustrate the distribution of insurance types.
  3. **Bar Charts:**
    - Horizontal: Reduced activity days by gender.
    - Vertical: Illness counts for males and females.
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## Recommendations:

1. **Targeted Healthcare Support:**
  - Enhance healthcare outreach for low-income individuals who visit more frequently.
  - Special focus on chronic illness cases (illness counts of 4-5).
2. **Insurance Optimization:**
  - Increase accessibility to government insurance for low-income individuals.
  - Promote awareness about private insurance benefits.
3. **Income-Based Strategies:**
  - Introduce sliding-scale healthcare fees for low-income patients.
  - Offer preventive health programs to minimize frequent visits.
4. **Gender-Based Interventions:**
  - Develop tailored wellness programs for females, focusing on reducing activity impairment days.