Chronic Obstructive Pulmonary Disease (COPD)

Disease Information Packets – Slide Set

Public Health Services,
Community Health Statistics
11/2012
What is COPD?

- Chronic obstructive pulmonary disease, or COPD, is a respiratory disease that makes it hard to breathe.
  - The airways in lungs become swollen, less elastic, or are destroyed.
  - It gets worse over time.
  - Includes chronic bronchitis and emphysema.
  - It cannot be cured, but it can be stopped and treated.

Demographic Risk Factors

• **Age**
  – People aged 65-74 years are more likely to report COPD than any other age group.

• **Gender**
  – Females are more likely to have COPD and die at a higher rate due to COPD.

• **Genetics/Family History**
  – People with a family history of COPD are more likely to get the disease if they smoke.
  – Genes have been discovered that directly influence the development of COPD.

Social and Behavioral Risk Factors

- **Smoking**
  - 90% of COPD deaths are due to smoking.
- **Secondhand Smoke**
- **History of Respiratory Infections**
- **Occupational Exposure to:**
  - Dust
  - Ash
  - Fumes
  - Gases

Intermediate Outcomes

• **Bronchitis**
  – Inflammation and scarring of the bronchial tubes.

• **Emphysema**
  – Progressive, irreversible destruction of the alveoli (air sacs) in the lungs.

National Statistics and Disparities

• In 2009, the rate of death due to COPD was 41.9 per 100,000.

• Whites had the highest rate of death due to COPD compared to other racial/ethnic groups.

• Between 1999 and 2009, the rate of death due to COPD among women rose 10%, while the rate of death among males decreased 5%.

• In 2009, an estimated 739,000 hospitalizations due to COPD were reported and over 15.3 million doctors visits due to COPD were reported.

Prevalence of COPD Among Adults (18+ years) by Race/Ethnicity
United States, 2008-2010

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>5.5%</td>
</tr>
<tr>
<td>White</td>
<td>5.9%</td>
</tr>
<tr>
<td>Black</td>
<td>4.6%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3.0%</td>
</tr>
<tr>
<td>API‡</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

‡Asian and Pacific Islanders.
Costs

• In 2010, the annual cost for COPD was an estimated $50 billion, including $30 billion on direct healthcare costs.

Local Statistics and Disparities

National, State, and Local COPD Death Rates, 2000-2009

†Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File 1999-2009.
Local Statistics and Disparities

COPD*: Actual and Age-Adjusted Death Rates**
San Diego County, 2009

![Bar chart showing actual and age-adjusted death rates per 100,000 for total, male, female, white, black, Hispanic, and API populations.]

*COPD death rates in (underlying cause of death) ICD-10 codes J42-J44, 4Z.
**County actual rates are per 100,000 population. County age-adjusted rates are per 2019, U.S. 2000 LHS to 2019 population.
API includes Asian and Pacific Islanders.
COPD*: Death Rates** by Age Group
San Diego County, 2009

*COPD death refers to (underlying cause of death) ICD-10 codes J40-J44, 47.
**County actual rates are per 100,000 population. County age-adjusted rates are per 100,000 2000 US standard population.
§ Rates not calculated for fewer than 5 events.
Local Statistics and Disparities

COPD* Death Rates** by Region
San Diego County, 2000-2009

*COPD death refers to (underlying cause of death) ICD-10 codes J40-J44.47.
**County actual rates are per 100,000 population. County age-adjusted rates are per 100,000 2000 US standard population.
§Rates not calculated for fewer than 5 events.
Local Statistics and Disparities

COPD* Death Rates** by Region
San Diego County, 2009

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate per 100,000</th>
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<tbody>
<tr>
<td>San Diego County</td>
<td>28.8</td>
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<tr>
<td>North Coastal</td>
<td>31.8</td>
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<tr>
<td>North Central</td>
<td>25.0</td>
</tr>
<tr>
<td>Central</td>
<td>20.8</td>
</tr>
<tr>
<td>South</td>
<td>20.0</td>
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<tr>
<td>East</td>
<td>41.2</td>
</tr>
<tr>
<td>North Inland</td>
<td>33.7</td>
</tr>
</tbody>
</table>

*COPD death refers to (underlying cause of death) ICD-10 codes J40-J44, 47.
**County actual rates are per 100,000 population. County age-adjusted rates are per 100,000 2000 US standard population.
§ Rates not calculated for fewer than 5 events.
Prevention

• Early detection
  – Allows earlier treatment to stop disease progression.

• Avoidance of pollutants and tobacco smoke
  – Do not smoke or breathe second-hand smoke.
  – Avoid home and workplace air pollutants.

• Treat respiratory infections
  – Treatment helps prevent the initial stages of COPD.

• See your doctor regularly
  – Treatment requires medical diagnosis and management of medications to alleviate symptoms.
  – Patients with advanced disease may need supplemental oxygen, or a lung transplant.

• Get a flu shot
  – Flu can cause serious problems for a person with COPD.

Contact Us

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