

# **Ethnic Disparity in Prescribing Behavior for Hepatitis C-Infected Members in a Medicaid Managed Care Organization**

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# Rationale

- Hepatitis C affects an estimated 3.9 million Americans, 2.7 mil progress to active
- Chronic Hepatitis C causes about 8,000 to 10,000 deaths per year.
- The number of deaths per year is projected to increase to 38,000 by 2010.
- Healthy People 2010
  - Increase quality and years of healthy life
  - Eliminate health disparities among ethnic groups

# Objective

- To determine if physician prescribing of combination therapy (ribavirin/interferon alfa-2b) in Hepatitis C-infected members differed among ethnic groups.

# Additional Background

- Combination therapy with ribavirin and interferon alfa-2b has emerged as the treatment of choice for Hepatitis C
- Medicaid Population
  - All members have equal access to providers.
  - Members have similar socioeconomic status.
  - Lack of co-pay lowers barriers to access.

# Methods

- Continuously enrolled Medicaid members for 1999 calendar year.
- Examined patients with pharmacy claims for combination therapy (ribavirin/interferon alfa-2b).
- Identified Hepatitis C-infected members.
  - ICD-9 Codes: 070.41, 070.44, 070.51, 070.54, 571.40, 571.41, V02.60, V02.62

# Patient Population

73,869 continuously enrolled members in MMCO during 1999



395 members with ICD-9 codes for Hepatitis C



60 members with pharmacy claims for combination therapy

0.535%  
of MMCO  
population

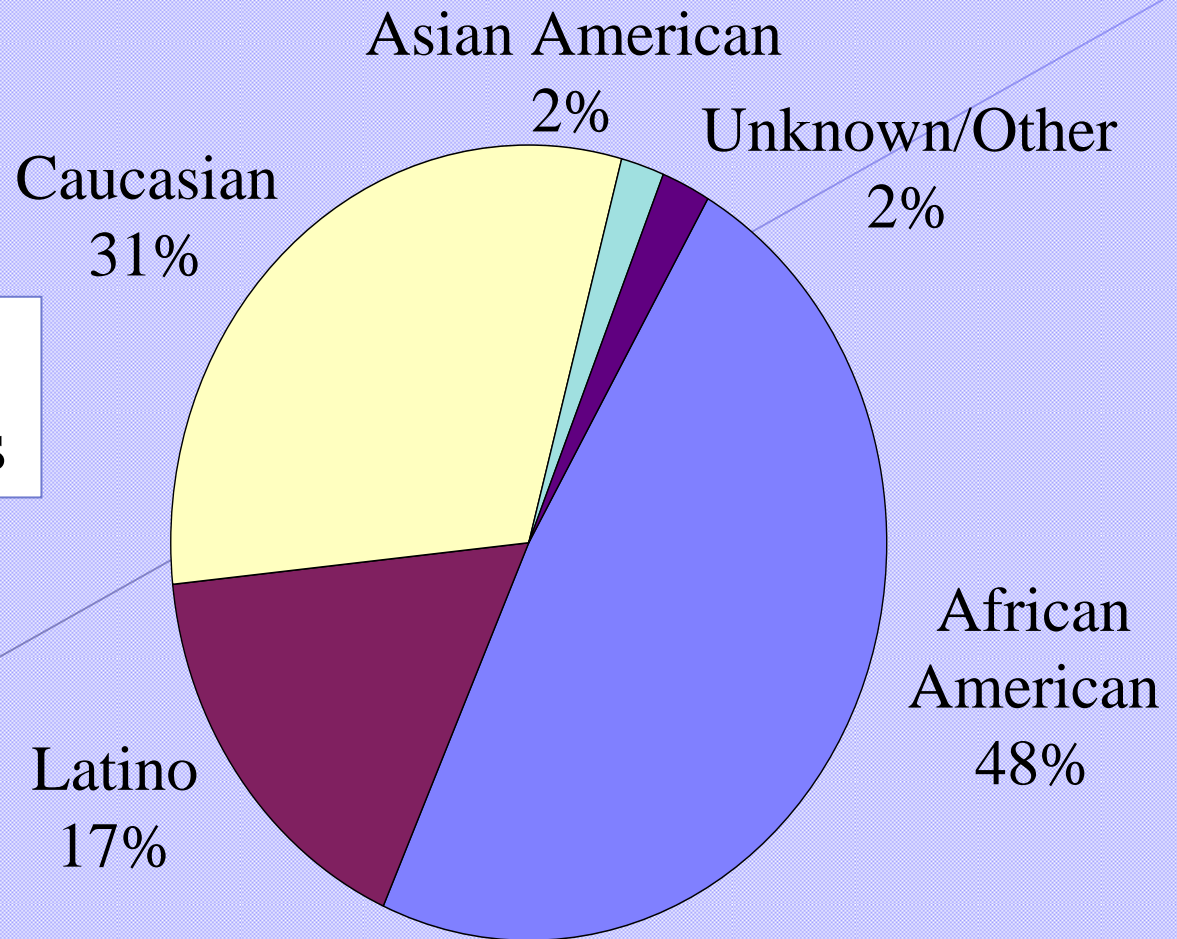
15.2% had  
combination  
therapy

# Demographics of Hepatitis C Population

N = 395

Mean Age:  
46.5 ± 9.5 years

Male: 53.9%

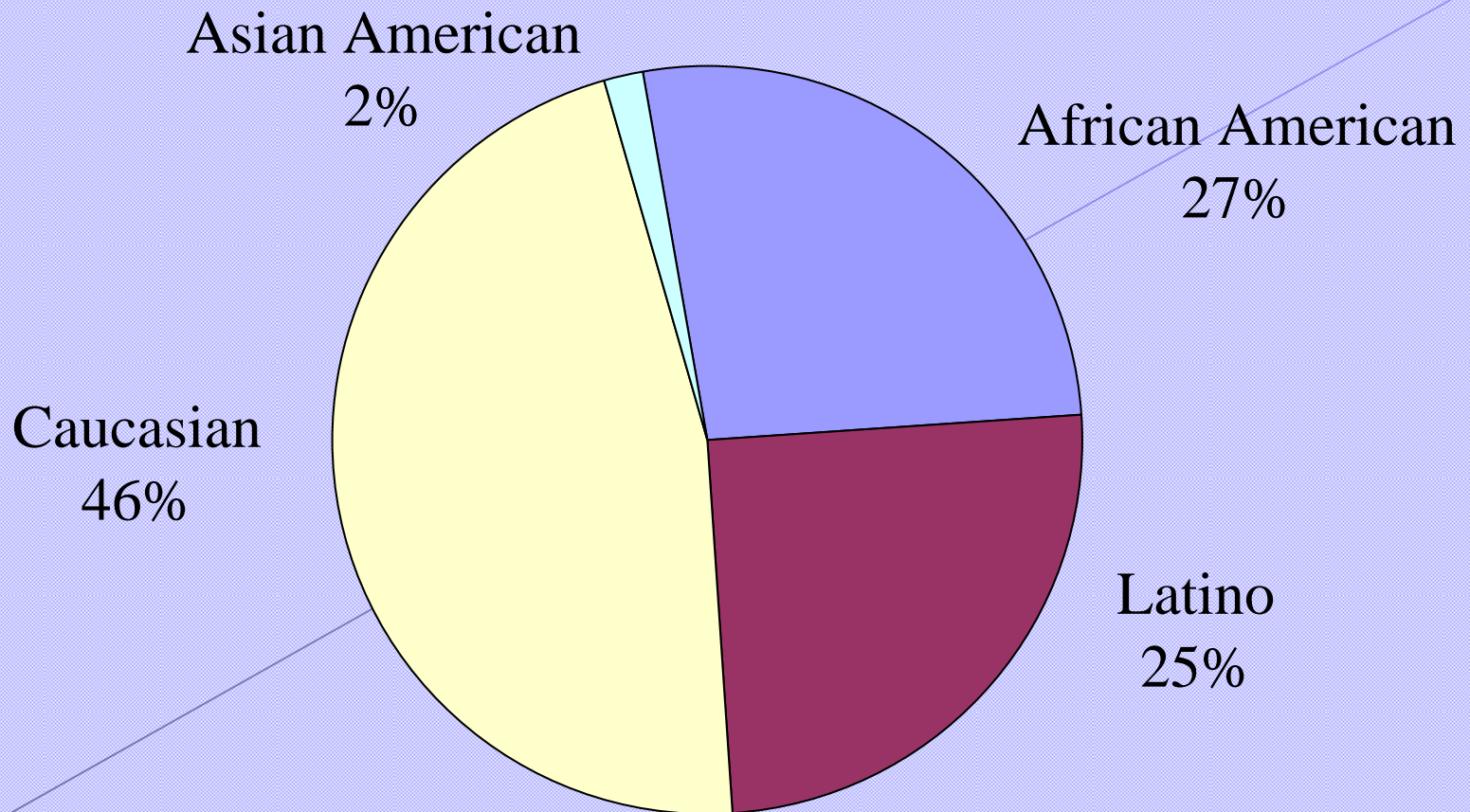


# Ethnic Distribution

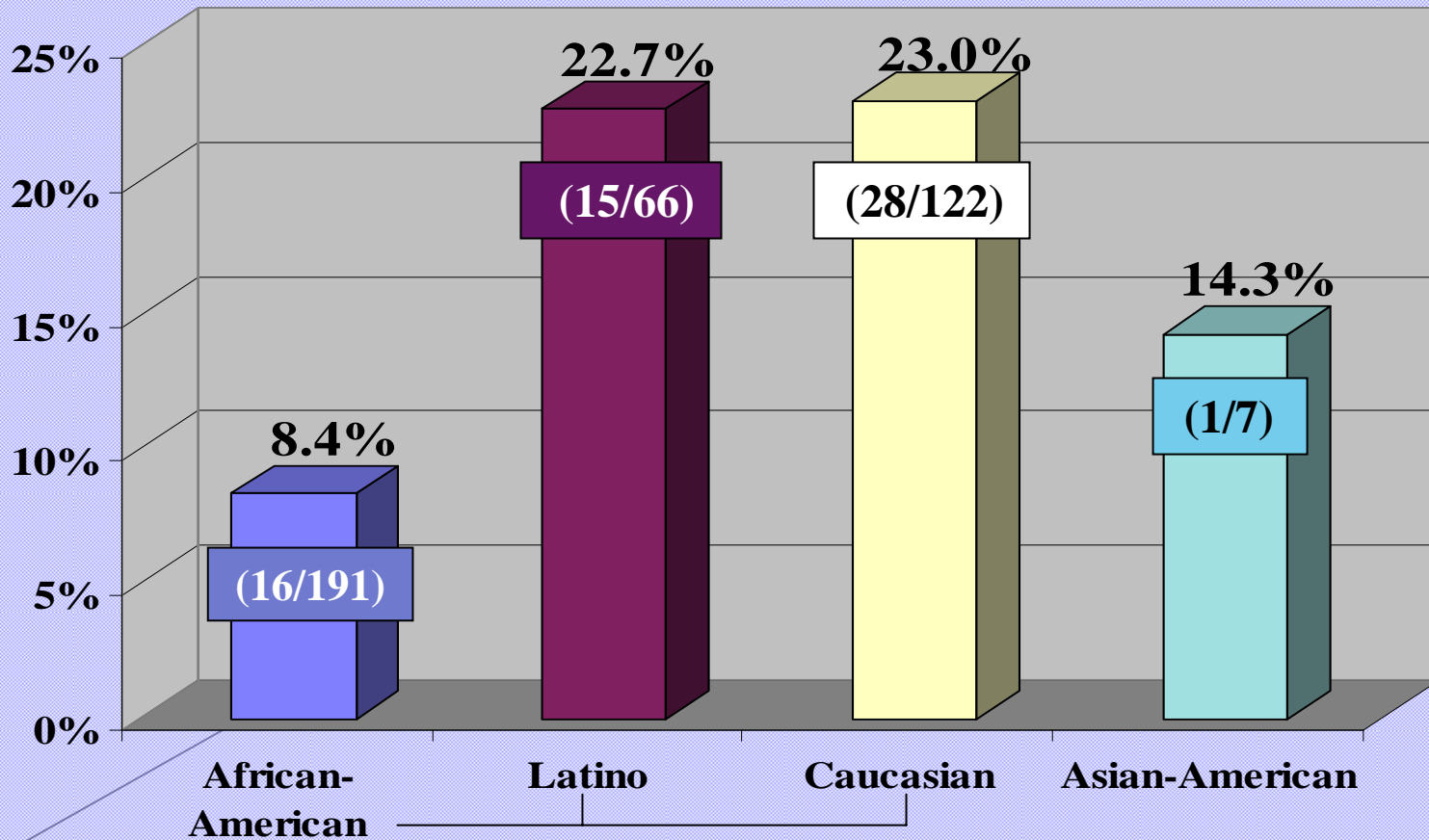
Ethnic Group	Hepatitis C	Medicaid	p-value*
African American	48%	49%	0.684
Latino	17%	24%	0.001
Caucasian	31%	16%	0.001
Asian American	2%	4%	0.007
Other/Unknown	2%	6%	0.002

\*Chi-squared

# Ethnic Distribution of 60 Members Receiving Combination Therapy



# Hepatitis C Members Receiving Combination Therapy



\*(p < 0.002)

# Study Conclusions

- A disproportionately low percentage of African Americans receive combination therapy.

# Further Investigation

- Combination Therapy - Contraindications and Warnings:
  - Boxed Warning – Pregnancy
  - Hypersensitivity warnings
  - Patients with autoimmune hepatitis
  - Hemolytic anemia
  - Hemoglobinopathies - thalassemia, sickle-cell anemia
  - History of pre-existing psychiatric disorders

# Further Investigation

- Pregnancy, sickle-cell anemia, hemolytic anemia
  - African American = 4
  - Latino = 3
  - Caucasian = 1
- Age < 18 years and Age > 65 years:
  - Latino = 7
  - African American = 4
  - Caucasian = 2

# Possible Explanations

- Physician prescribing – clinical rationale
  - Until recently, studies showed that African American patients had decreased sustained response rates with interferon monotherapy.
  - Studies evaluating combination therapy with ribavirin/interferon alfa-2b have shown some improvement in sustained response rates in African American patients.
  - Significant side effect profile – Risk/Benefit?

# Possible Explanations

- Studies of Hepatitis C treatments tend to have underrepresentation of African American populations.
- Treatment barriers
  - Side Effect profile.
  - Subcutaneous administration of interferon alfa-2b.
  - Transportation.

# Limitations

- Not adjusted for disease severity.
- Assumed all patients diagnosed with Hepatitis C were candidates for combination ribavirin/interferon alfa-2b therapy.

# Discussion

- Analysis showed that African Americans with Hepatitis C diagnosis were prescribed combination therapy with ribavirin/interferon alfa-2b less frequently than other ethnic groups.
  - Reduced clinical benefit?
  - Patient treatment barriers?
- When controlled for documented contraindications, disparity widens.

# Implications

- Newer formulation of combination therapy may have improved sustained responses in African American populations.
  - Updated analysis needed.
- Partner with industry/academia to promote parity through outreach, awareness and education.
  - Patient
  - Provider
  - MCO