

# Cost Analysis of the Chronic Disease Self-Management Program

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*A comparison of health care costs  
among Medicaid members  
with chronic health conditions*



**COLORADO**  
Office of Community  
Access & Independence  
Division of Aging & Adult Services

# Overview

- **The study compared health care costs among 100 adult Medicaid members who took a Chronic Disease Self-Management Program (CDSMP) class (the intervention group) compared to other Medicaid members with the same conditions who did not take a CDSMP class (baseline group).**
  
- **Individuals in both groups were age 22 or older, were not living in a nursing home or hospice and had one or more of the following conditions:**
  - **Asthma**
  - **Chronic obstructive pulmonary disease**
  - **Diabetes**
  - **Heart disease**
  - **Hypertension**
  - **Kidney disease**

# Service categories

Differences in pre/post Medicaid costs between the intervention and baseline groups were calculated for:

- Emergency room visits
- Inpatient days
- Outpatient visits
- Physician visits

## Time periods studied

**Medicaid claims were tracked for two six-month periods for each group:**

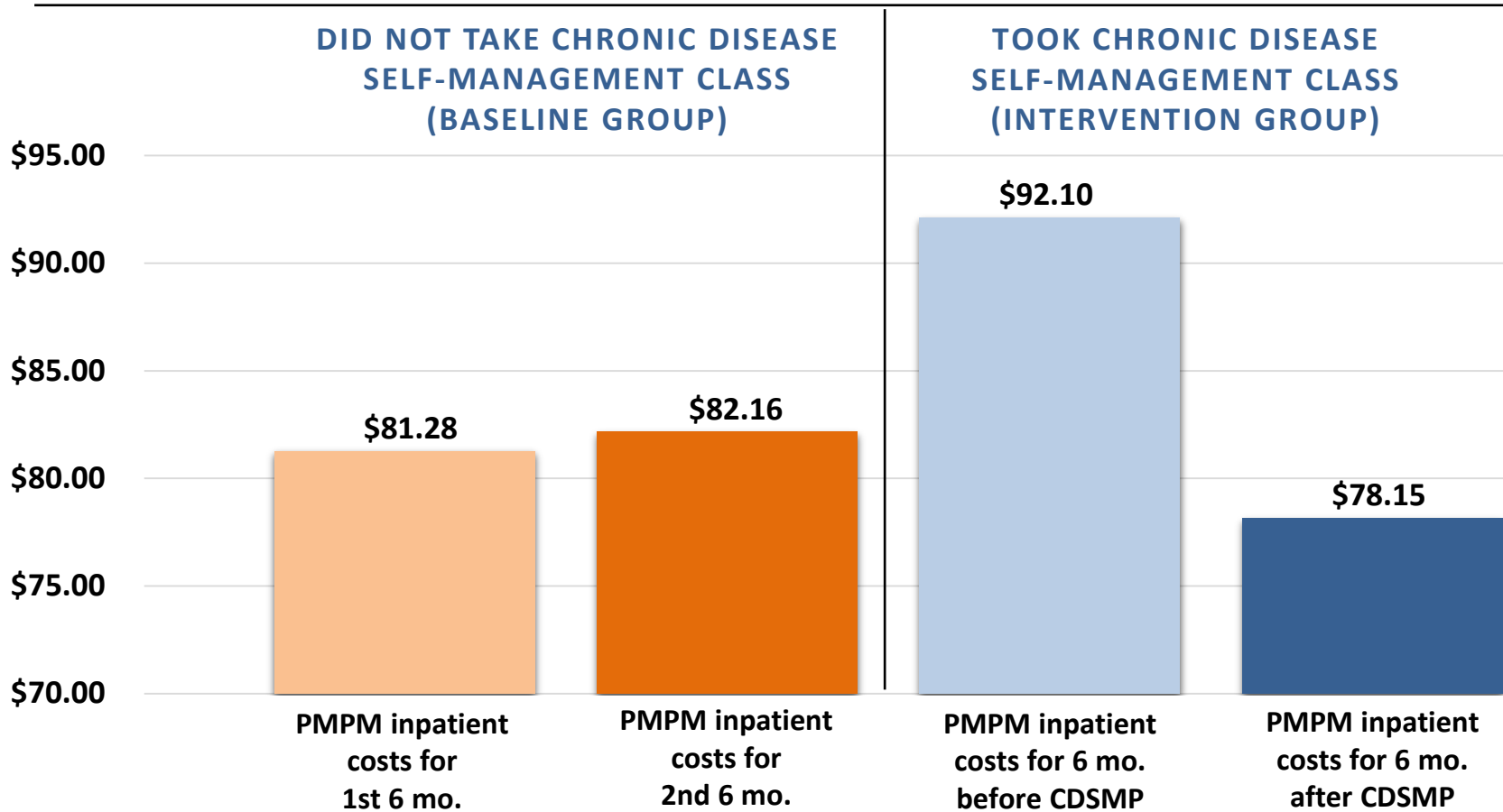
- **For the baseline group, the average per-member, per-month cost of Medicaid claims was calculated for two sequential six-month periods.**
- **For the intervention group, the average per-member, per-month cost of Medicaid claims was calculated for the six months before the start of the CDSMP class and for the six months after the end of the class.**

# Study Limitations

The following are the limitations of this analysis:

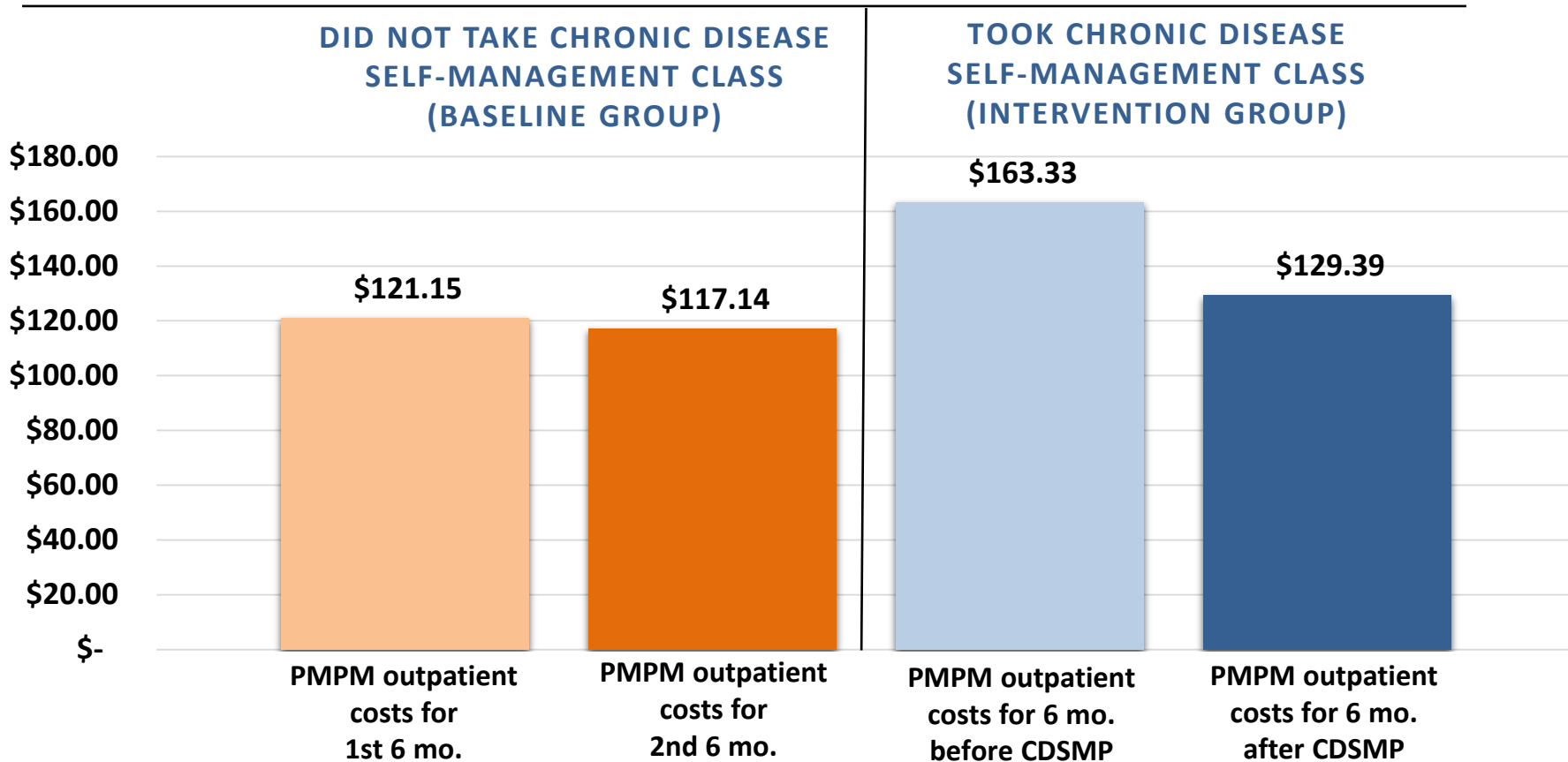
- **Statistical significance of the results could not be determined due to the small size of the intervention group (n = 100).**
- **The comparison of 100 Medicaid members who completed a CDSMP class with all other Medicaid members with chronic health conditions is not ideal for a matched comparison.**
- **Members from the two groups were not matched on variables such as gender, other illnesses or average claims costs for the first six months.**
- **Since all individuals in the study were Medicaid members, it is not possible to determine if the results would generalize to other populations.**

# Average Cost of Inpatient Utilization (Per Member Per Month/PMPM) For Colorado Medicaid Members With at Least One Chronic Condition



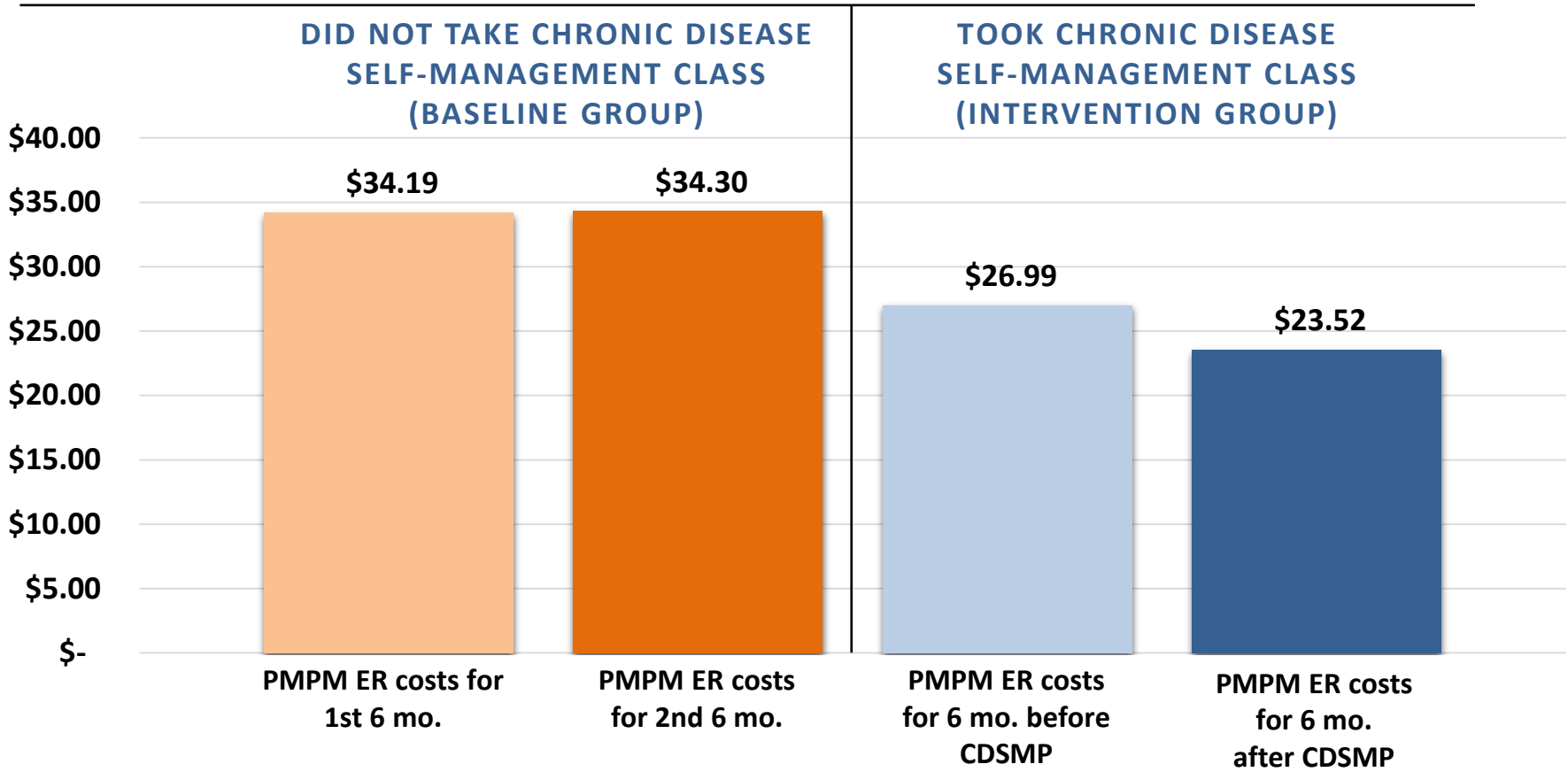
There was a 16% difference (reduction) in pre/post inpatient costs for the group who took a class compared to those who did not. (Statistical significance could not be determined.)

# Average Cost of Outpatient Utilization (Per Member Per Month/PMPM) For Colorado Medicaid Members With at Least One Chronic Condition



There was a 17% difference (reduction) in pre/post outpatient visit costs for the group who took a class compared to those who did not. (Statistical significance could not be determined.)

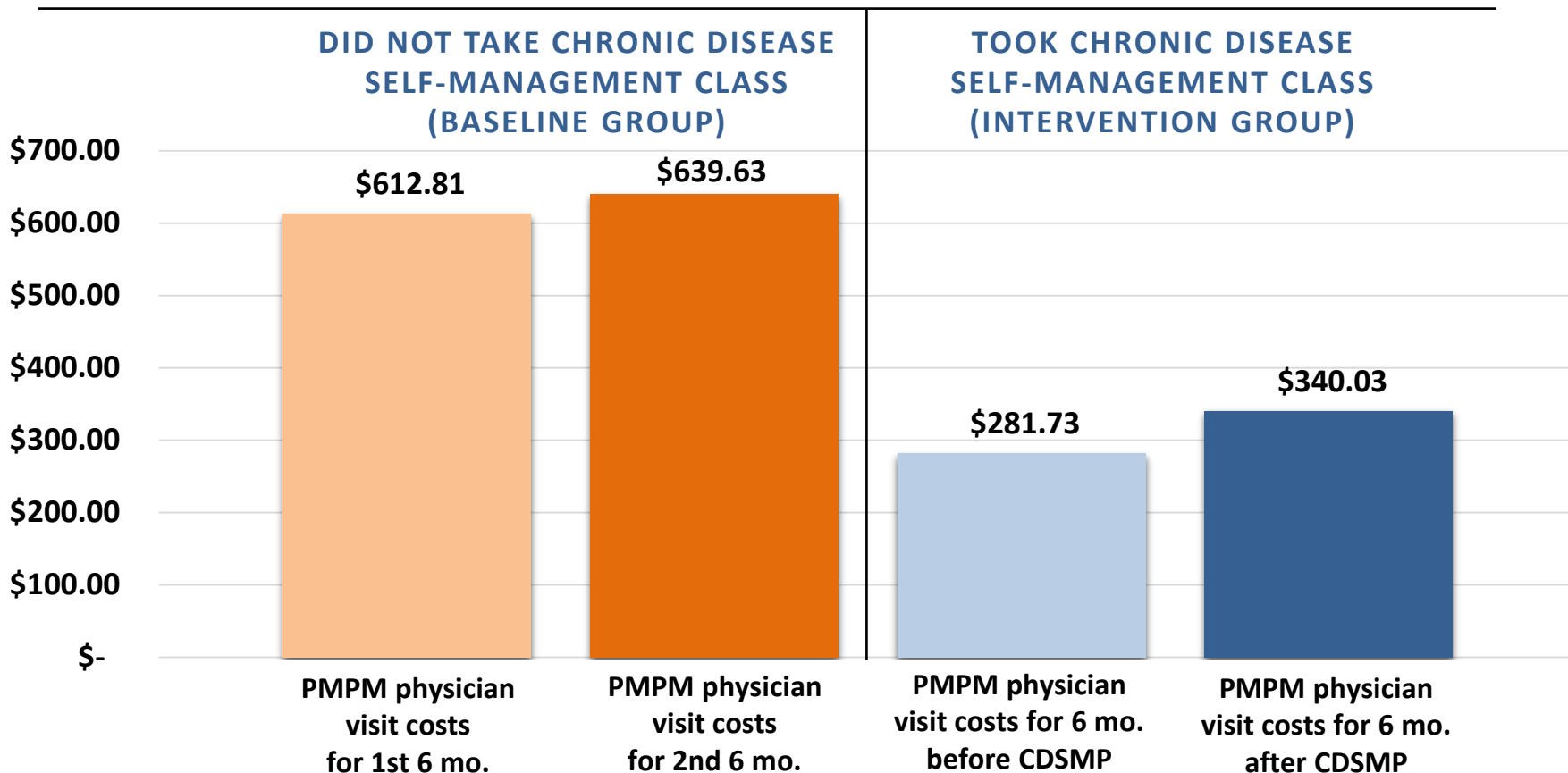
# Average Cost of Emergency Room Utilization (Per Member Per Month/PMPM) For Colorado Medicaid Members With at Least One Chronic Condition



There was a 13% difference (reduction) in pre/post emergency room costs for the group who took a class compared to those who did not. (Statistical significance could not be determined.)



## Average Cost of Physician Visit Utilization (Per Member Per Month/PMPM) For Colorado Medicaid Members With at Least One Chronic Condition



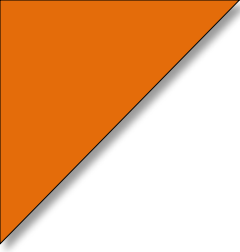
There was a 16% difference (increase) in pre/post physician visit costs for the group who took a class compared to those who did not. (Statistical significance could not be determined.)

\* One possible explanation for the increase in costs of physician visits may be that after taking a class, individuals were more likely to see their physicians earlier in their disease process rather than later, making it possible to treat the condition in outpatient settings rather than in more costly settings.

## Conclusions

**The results, which are based on actual Medicaid claims data, indicate a potential for cost reductions in inpatient, outpatient and emergency room visits among individuals who complete CDSMP classes. However, statistical significance of the results could not be determined due to the small size of the intervention group (n = 100).**

**Further evaluation of costs and service utilization with a larger population sample of CDSMP participants could help determine consistency of results and determine whether the outcomes noted in this study can be replicated and statistical significance can be determined.**



**This analysis of Medicaid claims data was conducted by the Colorado Department of Health Care Policy and Financing through a contract administered by the Colorado Department of Human Services.**

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