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Personal Care Growth: Rebalancing Channels with Income and Age

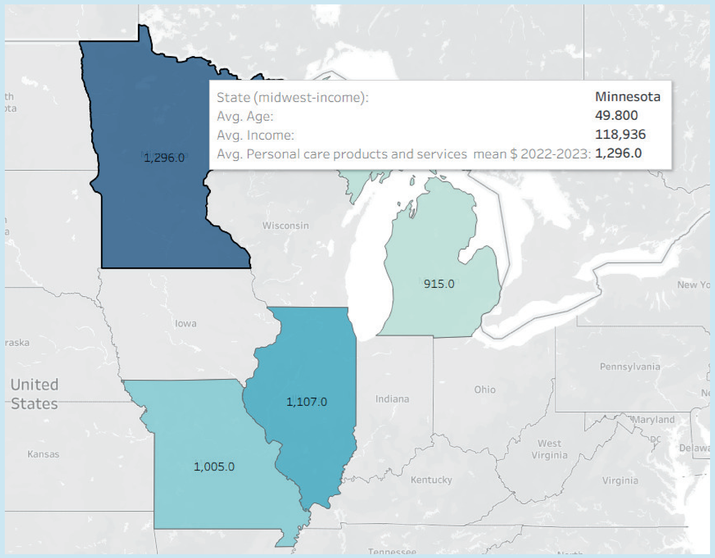
Who Spends More on Personal Care? A Data-Driven Look at Midwest Spending Patterns using the model:

YoY Growth = β0 + β1 (Income in $000s) + β2 (Female % or Female=1) + β3 (Age) + ϵ

Abstract

In Minnesota, personal care spending is driven mainly by income and age. By using 2019–2025 retail data from the census, our study found in-store sales grew faster (but with more volatility) while online sales expanded steadily. Nationwide, personal care spending rose about 5% annually since 2020, signaling robust demand. Especially, high-income Midwest metros (Minneapolis–St. Paul) have higher spending per household. Women spend over twice what men do, yet regression analysis (R^2=0.63) shows income and age (women aged 35–64) explain most of the spending variation.

Strategy suggestion: Focus on affluent, female-led markets to boost in-store sales and target younger male consumers online. Maintaining in-store strengths while expanding online access—with improved pricing and accessibility—can sustain further growth.

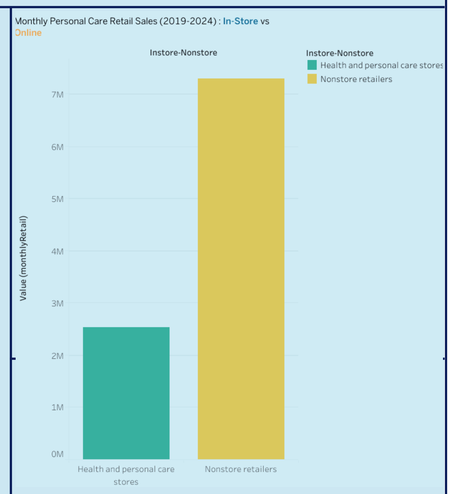


01. Introduction

Compare Minnesota and national trends to understand how income, age, gender, and shopping channel (online vs in-store) influence spending on health and personal care products. Using retail sales data from 2019–2025, this study examines how demographics and regional factors—especially in the Midwest—shape personal care consumption patterns and channel growth across the U.S.

02. Objective

Compare Minnesota, major Midwest cities, and national personal care trends to analyze how income, age, gender, and shopping channel (online vs. in-store) influence health and personal care spending.
Using retail sales data from 2019–2025, model and predict year-over-year growth to explain regional and demographic differences in consumer behavior.



03. Methodology

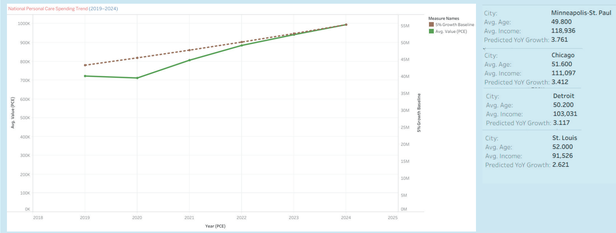
Data:
We used U.S. Census Bureau retail sales data (2019–2025) for both in-store and online channels, along with Bureau of Economic Analysis personal consumption and BLS Midwest income and demographic data from the Consumer Expenditure Survey (2019–2023).

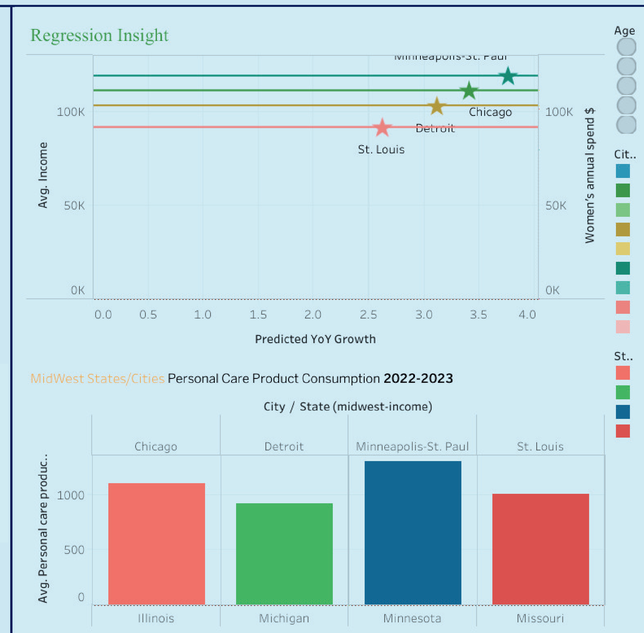
Analysis:
Monthly growth rates and Tableau visuals compared channel and regional trends. Regression modeling showed income and age drive most spending growth, while gender adds little once those factors are included.

- YoY Growth = β0 + β1 (Income in $000s) + β2 (Female % or Female=1) + β3 (Age) + ϵ
- For Minneapolis Predicted YoY Growth:
  = β0 + 0.04 × 118.936 + 0 × (Female %) - 0.02 × 49.8
  = β0 + 4.75744 - 0.996 = β0 + 3.76144

04. Results/Findings

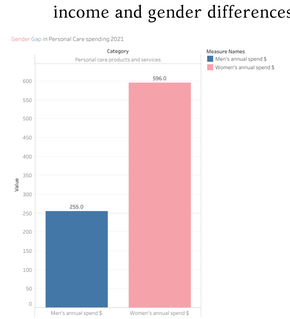
- Early 2025: in-store sales +4% vs online +9%; overall, in-store growth has been faster but more variable.
- National personal care spending has climbed ~5% each year since 2020, reflecting steady demand.
- Minneapolis–St. Paul (highest-income area) shows the most personal care spending per household.
- Women spend over twice as much on skincare and personal care each year as men, fueling strength in beauty and wellness retail.



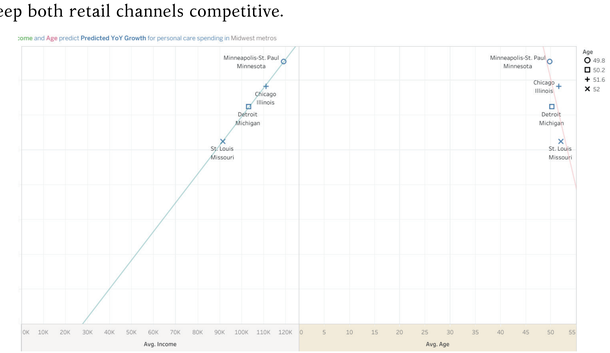


05. Analysis

Higher-income, dual-earner households—common in metro areas—drive in-store spending; women often prefer in-person shopping for quality/service. Younger shoppers and men tend toward online purchases. These patterns show income and gender differences keep both retail channels competitive.



- Despite the gender gap in spending (women spend 2.3× more), gender does not significantly impact growth when controlling for income and age.



- Correlation chart confirms that Minneapolis–St. Paul leads the region, with both high income and high personal care spending, surpassing average benchmarks.

- Regression plots show that higher income and slightly younger populations (like in Minneapolis–St. Paul) are linked to greater predicted year-over-year growth.

06. Conclusion

1.- Income and age drive personal-care growth.
2.- Minneapolis–St. Paul stands out due to high income and predicted growth.
3.- For Midwest strategy, focus on online channels and high-income metros.
4.- Gender insights matter, but mainly when combined with demographic data.

- Retail performance in Minnesota reflects clear demographic and income divides. High-income, female-led households sustain strong in-store sales, while younger, male consumers drive online growth.
- To optimize results, businesses should rebalance channels monthly—keeping in-store as the core and expanding digital access. Targeting lower-income and younger segments with fair pricing and convenient options can drive inclusive growth and strengthen market equity.

References

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