

# Optimal shingles vaccine distribution under a multiyear vaccination program

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## **Abstract**

In this work we use a dynamic programming and health economics framework to build an optimal allocation model for preventative shingles treatments among population groups with a single-payer health care provider (such as the Ontario program). We model and analyze whether or not the presence of multiple treatment options on the market may help increase coverage over more age groups under the same budgetary restrictions in a multiyear model. Lastly, we incorporate and discuss policy options for increasing coverage to age groups currently not in the program's window.