ARCC is funded by the Canadian Cancer Society
Grant# 2015-703549

Trends in costs and use of publicly-funded oncology biologics in Ontario

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Background

- Increasing costs of cancer therapies pose a significant sustainability challenge to health systems.
- Biologic drugs are complex molecules derived from living cells. Biosimilars are drugs that are highly similar to regulatory - approved biologics.
- Biosimilars, like generic drugs, present an opportunity to realize cost savings that could be directed elsewhere in the healthcare system.
- Of the oncology biologics, rituximab, trastuzumab and bevacizumab are used to treat many common cancers. In Canada, biosimilars to these drugs are expected to be available in the near future.

Objective

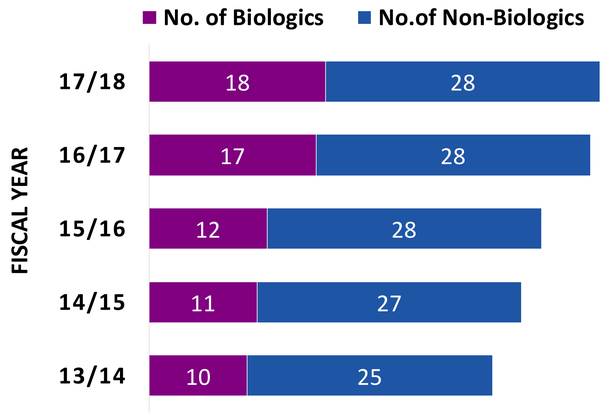
To inform system planning, we examined trends in costs and utilization of biologics funded by Cancer Care Ontario's New Drug Funding Program (**NDFP**) for IV cancer drugs.

Approach

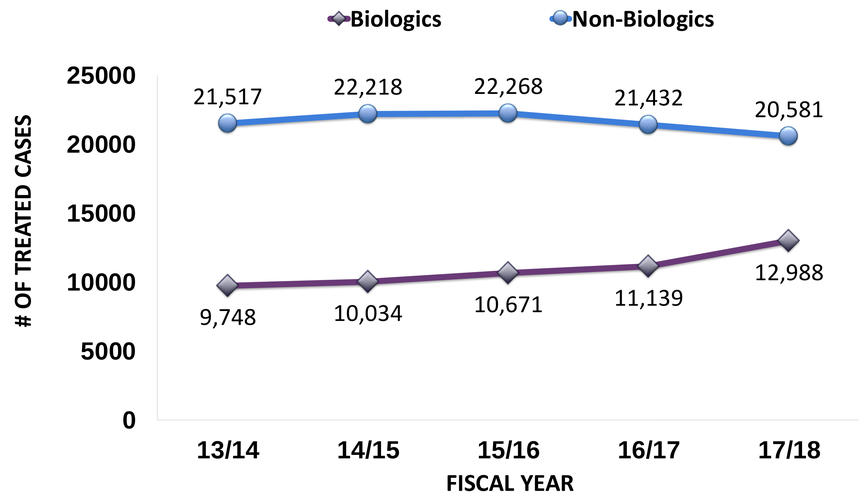
- All drugs funded by NDFP (n=46) were classified as 'biologic' or 'non-biologic' based on the Health Canada and the U.S. Food and Drug Administration definitions of biologics.
- Treatment volumes and costs data were obtained from the NDFP database (extracted October 2018), for claims approved between April 1, 2013 and March 31, 2018.
- Government costs refer to drug costs for doses administered that are reimbursed by NDFP. Costs reported do not reflect manufacturer rebates (if applicable).
  {Note: Patients do not pay any out-of-pocket costs for NDFP-funded drugs}
- Annual treatment volumes refer to the number of unique patients ("treated cases") receiving treatment reimbursed by NDFP per fiscal year. Patients may be counted more than once, if their treatment continued into the subsequent fiscal year.

Key Findings

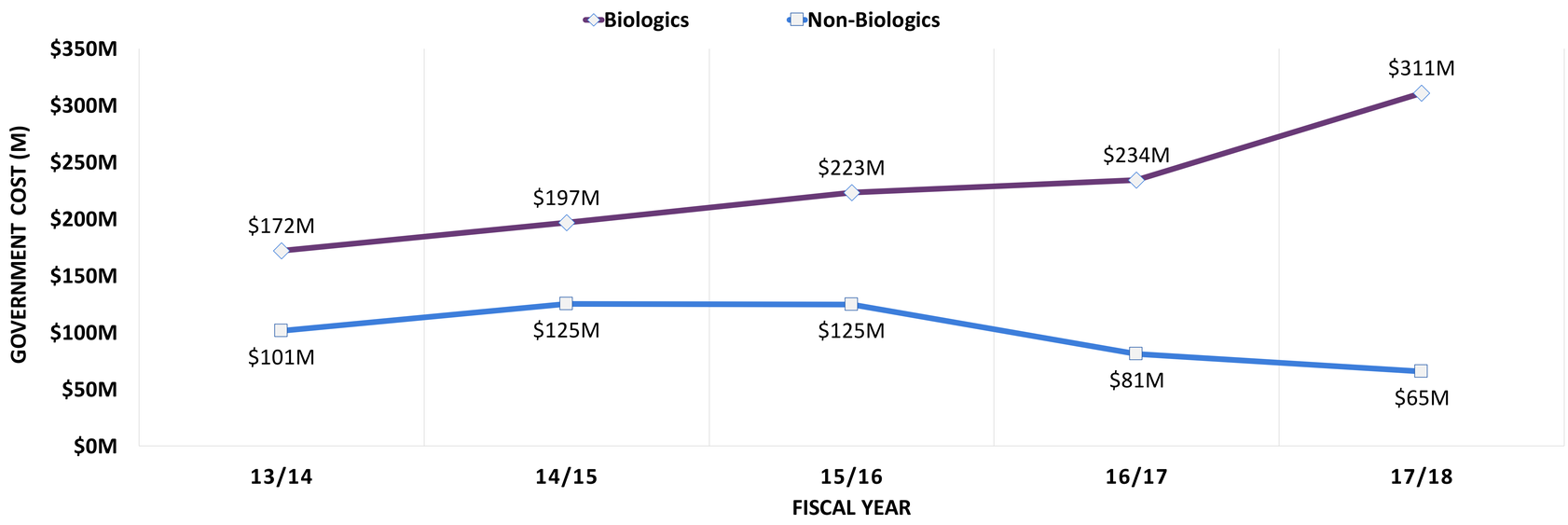
In the past five years, the number of biologic drugs funded by the NDFP almost doubled.



Over the past five years, NDFP treatment volumes for biologics increased by 33% and decreased by 4% for non-biologics.

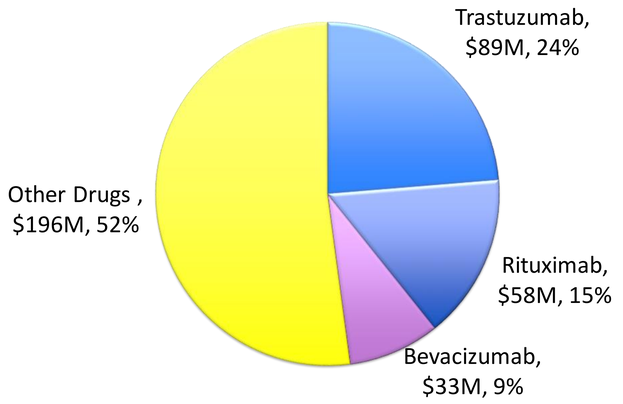


Over the past five years, public spending on oncology biologics increased by 81% while spending on non-biologics decreased by 35%.



In 17/18 biologics accounted for 82% of the annual expenditures with trastuzumab, rituximab, and bevacizumab accounting for 48% of the annual expenditure.

17/18 Expenditures for NDFP-funded IV Cancer Drugs



Conclusions

While number of funded drugs and total treatment volumes are exceeded by non-biologics, biologics represent the majority of total IV cancer drug spending in Ontario. Spending continues to shift from non-biologics to biologics, with biologics also dominating growth in both use and expenditures under the NDFP budget.

These findings suggest an opportunity for Ontario to obtain significant cost-savings from the introduction of oncology biosimilars.