

Taking the Pulse of COVID-19 in Saskatchewan—in 11 sets of charts

Results from the Social Contours and COVID-19 Research Team

October 29, 2021 (Issue 7.1)

QUESTION: Does proof-of-vaccination policy increase vaccine uptake? If so, by how much? If increased, is it sustained?

Methodological note: Implemented interrupted time-series analysis with two pre-set interventions: September 16 and October 1, 2021, in Stata™ version 17.0. These dates coincide with the announcement of the proof-of-vaccination policy in Saskatchewan and its implementation, respectively. Time period of interest: September 1 to October 24, 2021. Each data point is the 7-day moving average of number of doses reported being administered. First dose and second dose were treated separately. The location of recipient of the vaccine dose and age were variables considered.

Key Takeaways

- Overall, in Saskatchewan, the proof-of-vaccination policy had a significant effect in doses of vaccines administered, both first and second doses, following the proof of vaccination policy announcement on September 16, 2021. However, the uptake of only second dose vaccines significantly increased following the policy implementation on October 1, 2021.
- Notably, however, the steady increase in uptake of first dose vaccines following announcement of policy appear not to have been sustained in the weeks following the policy implementation. The first dose vaccine uptake having peaked around the date of policy implementation and steadily decreasing in the time following.
- The uptake of second dose vaccine—having reached just under 2000 daily, on average, at the date of policy implementation—have held steady and continued at that pace in the weeks following.

The effects of vaccine policy were different by COVID-19 reporting zones.

- Saskatoon and Regina mirrored the overall Saskatchewan pattern; however, the second dose uptake in Regina appears to be falling in the weeks following implementation of the policy.
- Far North, North, Central and South zones also mirrored the overall Saskatchewan pattern for the impact of vaccine policy for first dose uptake. However, in the Far North and Central zones, the second dose uptake continued to *increase* (as opposed to holding steady, as was for Saskatchewan overall) following the implementation of the policy on October 1.

The effects of vaccine policy were also different by age-groups, compared to the overall pattern for Saskatchewan, particularly in the youngest eligible group, 12-17 years.

- For the 12-17 age group, there were significant increases in vaccine uptake, both first and second dose, immediately following the policy announcement but non-significant change in uptake was seen at policy implementation. Following the date of proof-of-vaccine implementation, first and second dose uptake plateaued somewhat; however, unlike for other groups, didn't show a notable decrease.

- For the next two age groups, 18-39 and 40-59, first dose vaccine uptake appears to have hardly been affected by the vaccine policy implementation date, showing no immediate significant change. For both age groups, however, the first dose uptake decreased significantly during the weeks following implementation of policy, compared to pre-implementation uptake. The second dose uptake, however, showed holding steady at the peak rate of uptake which was around October 1st.
- For the older age group, 60+, the vaccine policy announcement was not impactful for dose uptake, but the implementation of policy was—especially for first dose. In this age group, the trend in uptake of second dose was not significantly impacted by the vaccination policy. However, there was a bump in overall second dose vaccine uptake immediately following the implementation.

CHARTS: Saskatchewan COVID-19 vaccination rates and proof of vaccination policies

By Zone

1. Saskatchewan (overall)
2. Saskatoon
3. Regina
4. Far North
5. North
6. Central
7. South

By Age Group

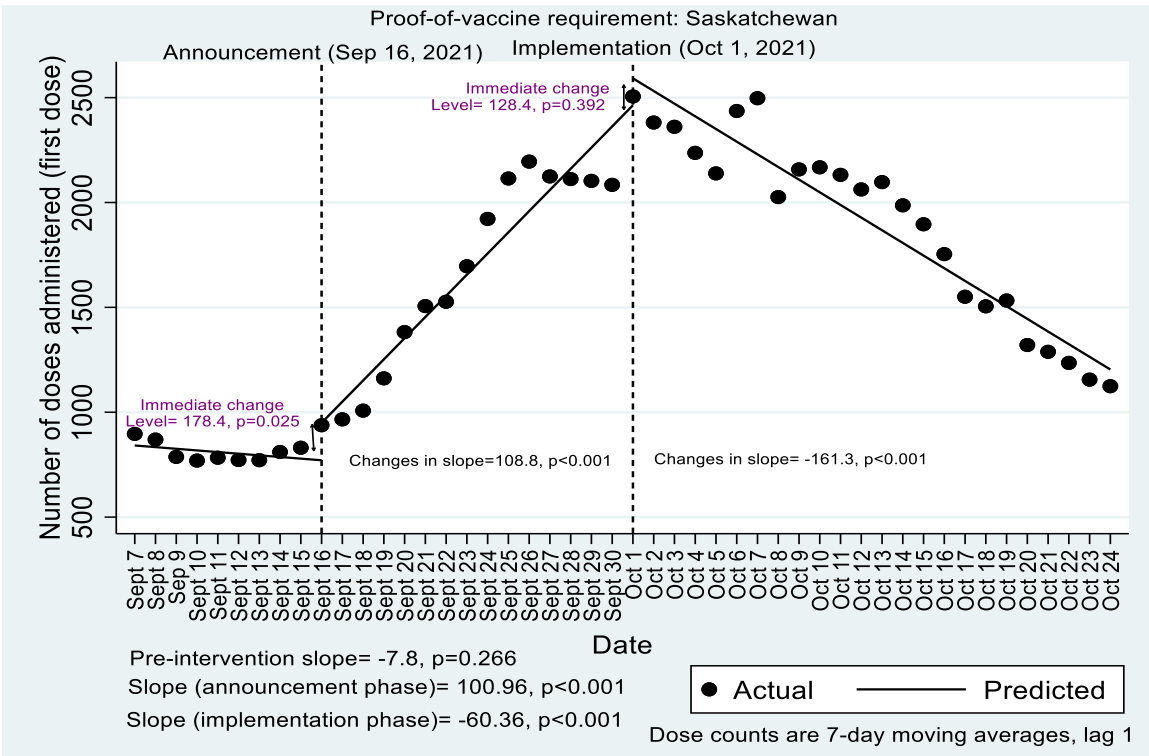
8. 12-17 years
9. 18-39 years
10. 40-59 years
11. ≥60 years

1. Saskatchewan (Overall): COVID-19 vaccination rates and proof of vaccination policies

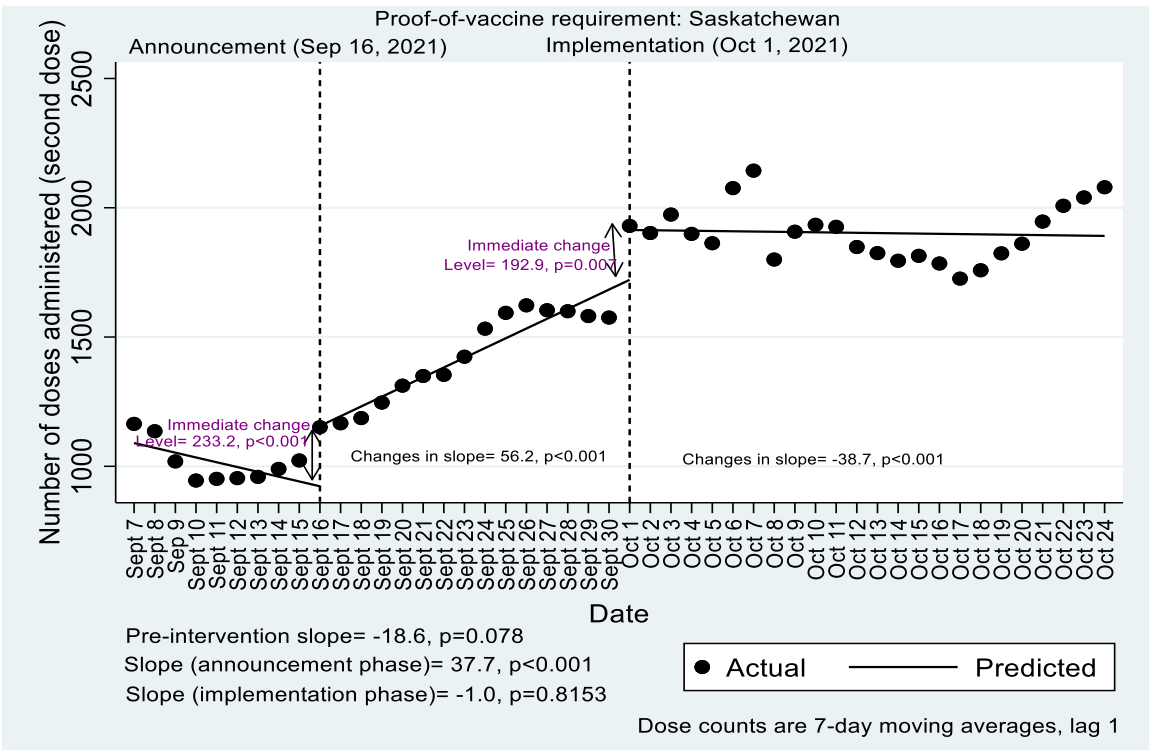
interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021)

dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



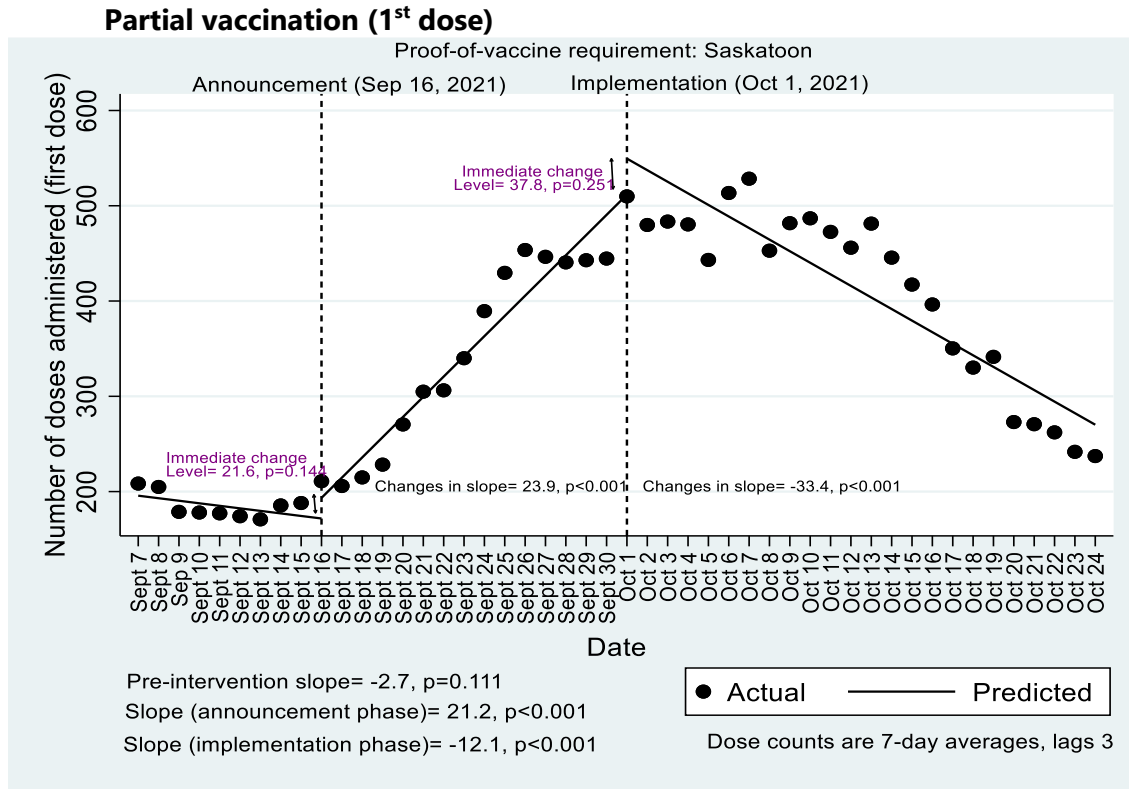
Full vaccination (2nd dose)



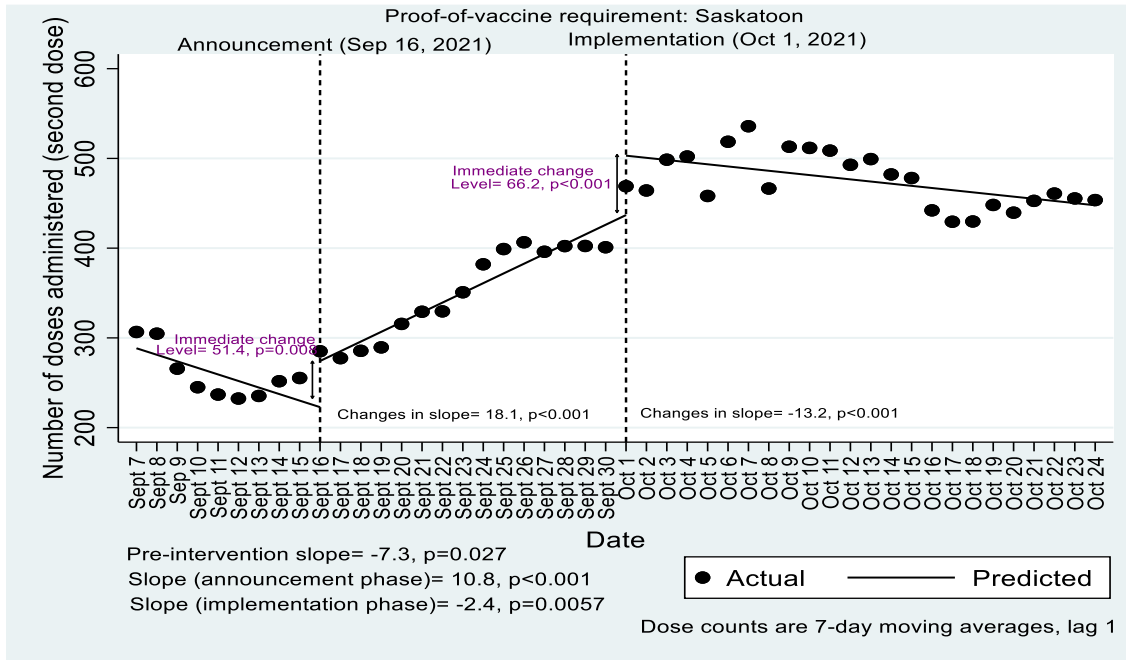
2. Saskatoon: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021)

dose counts are 7 day moving average, lag 1



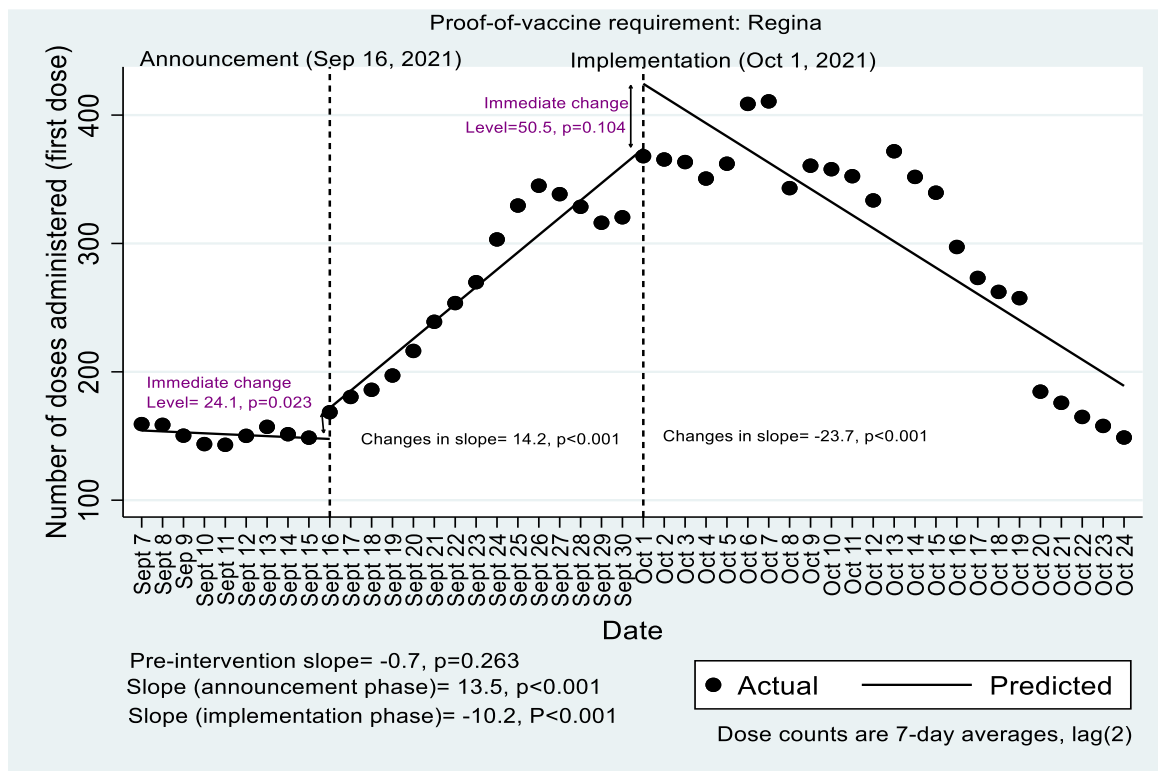
Full vaccination (2nd dose)



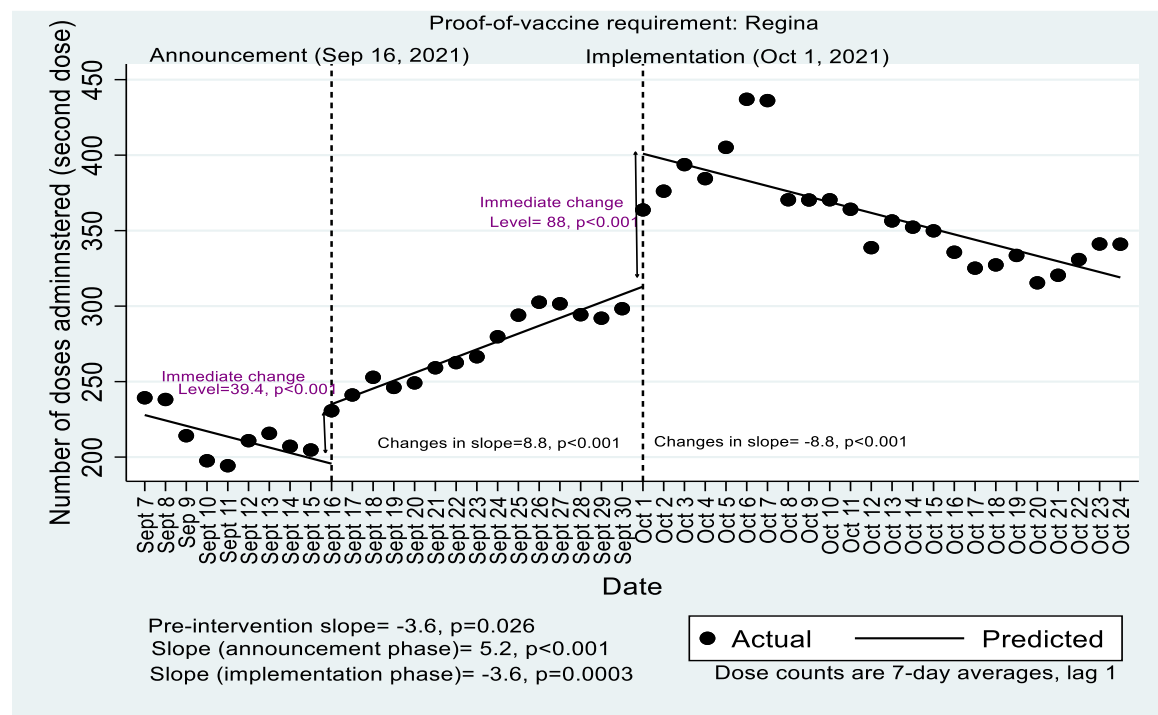
3. Regina: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



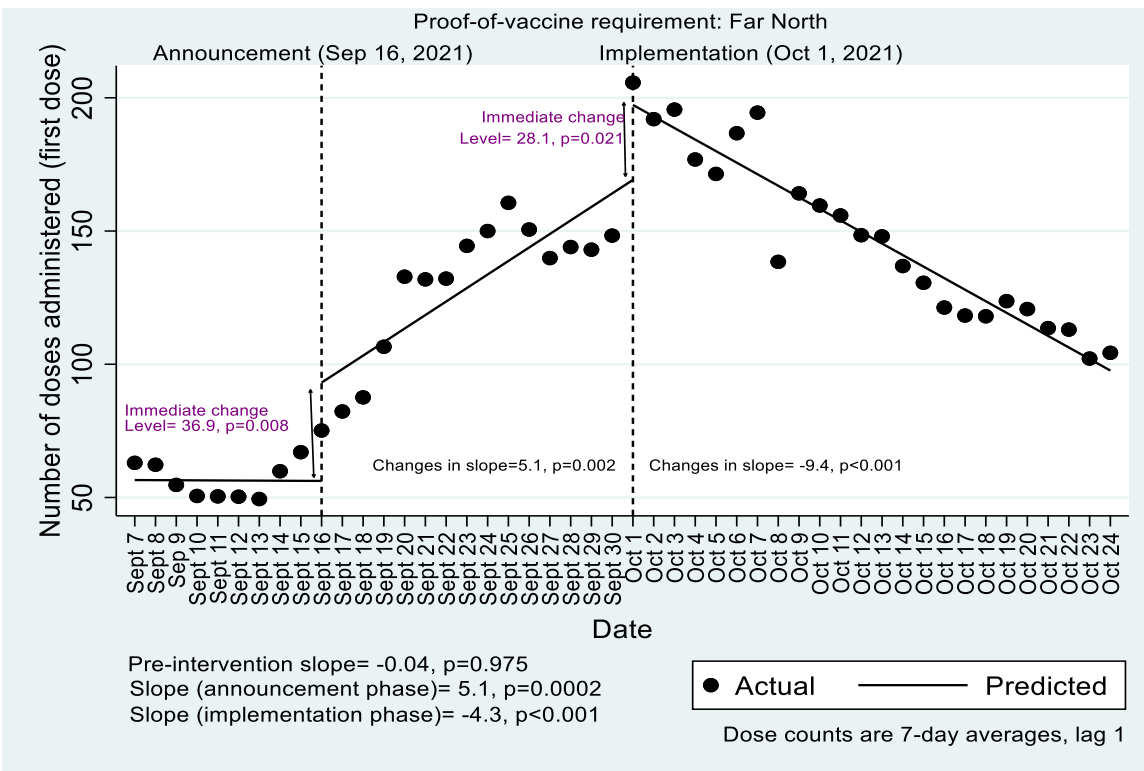
Full vaccination (2nd dose)



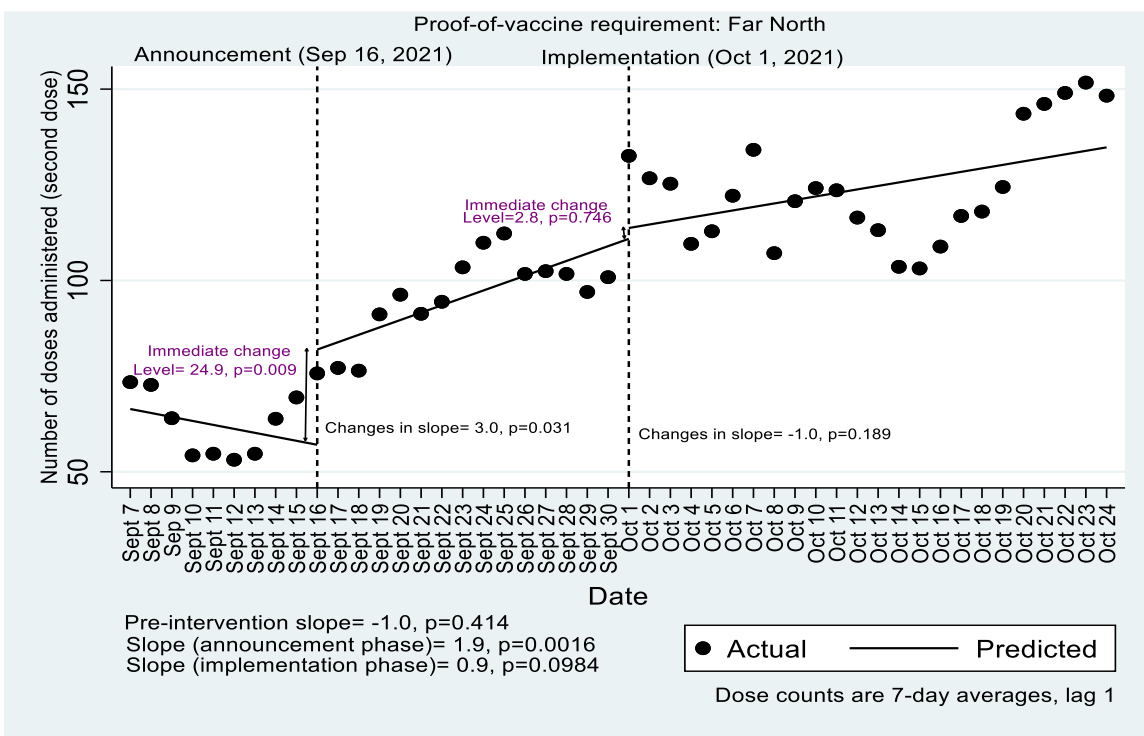
4. Far North: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



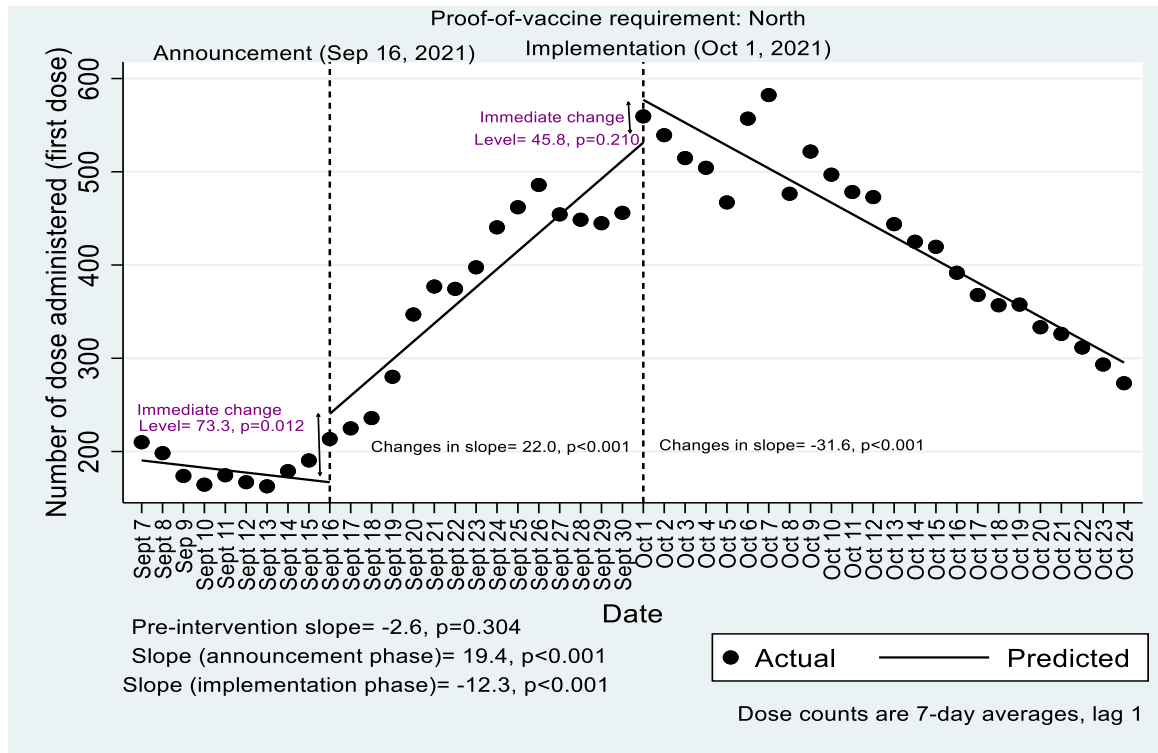
Full vaccination (2nd dose)



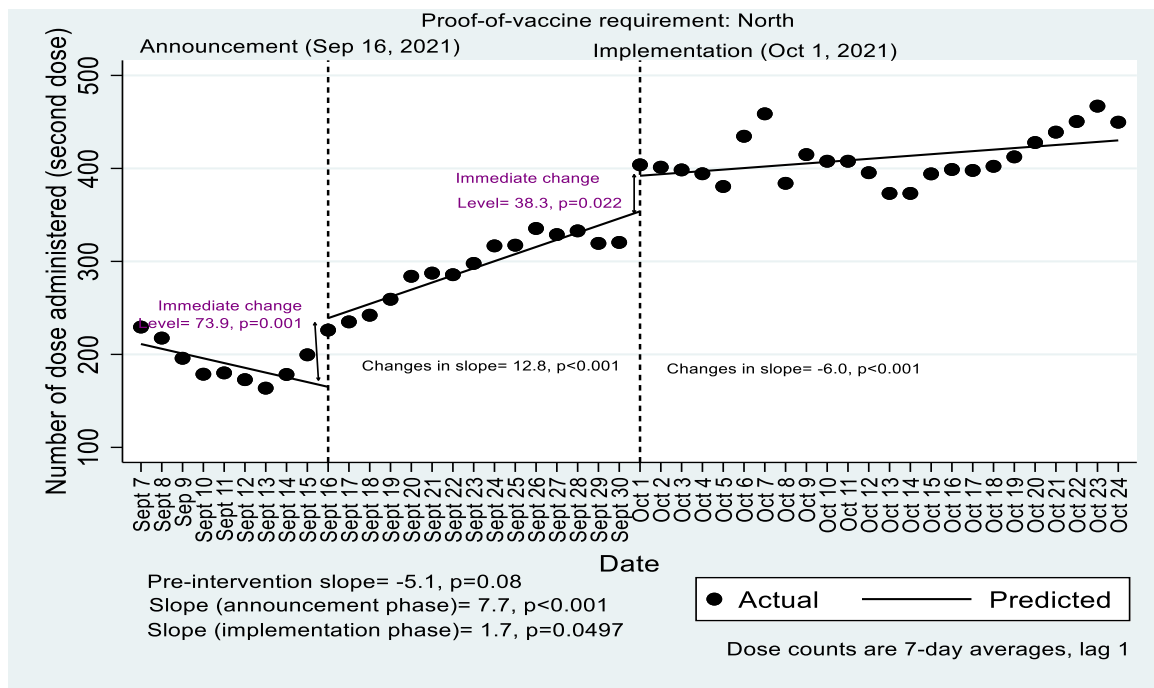
5. North: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



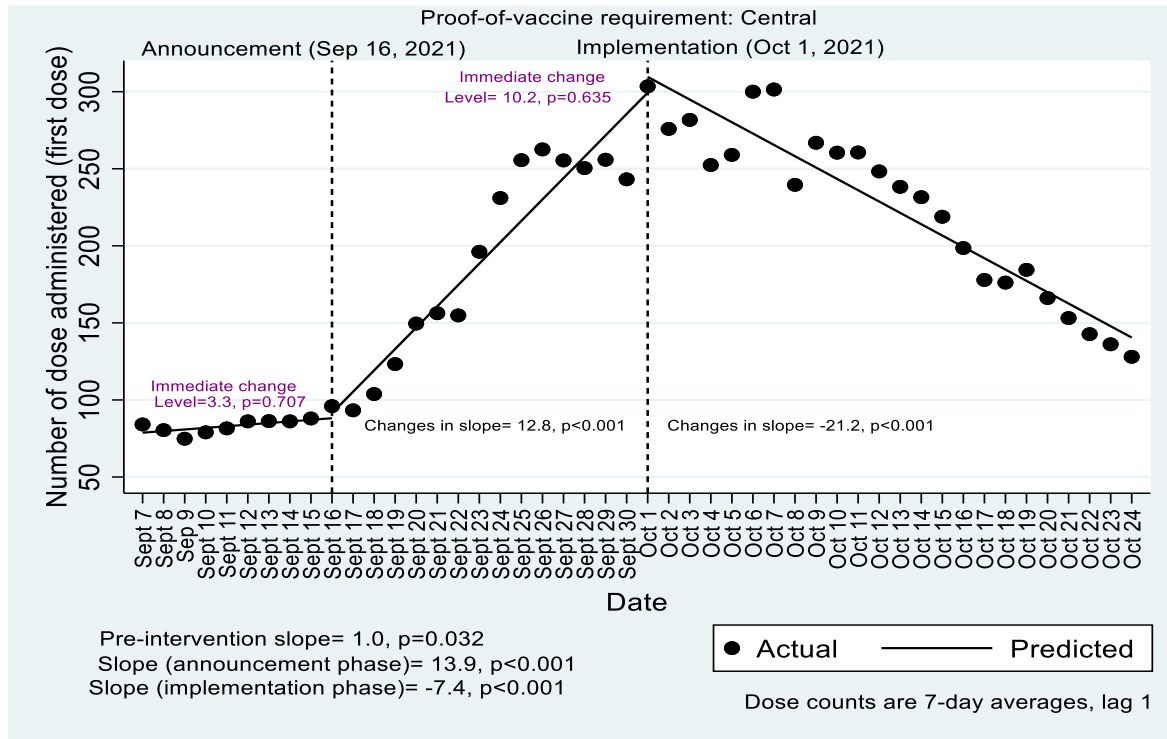
Full vaccination (2nd dose)



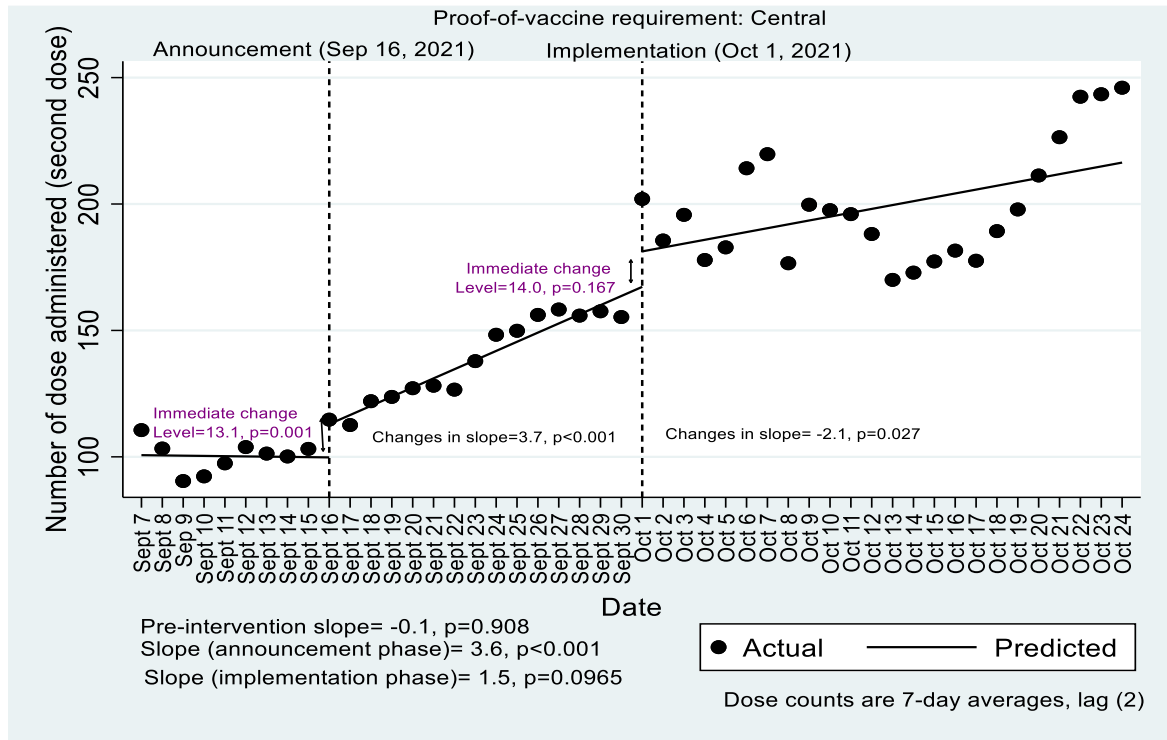
6. Central: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



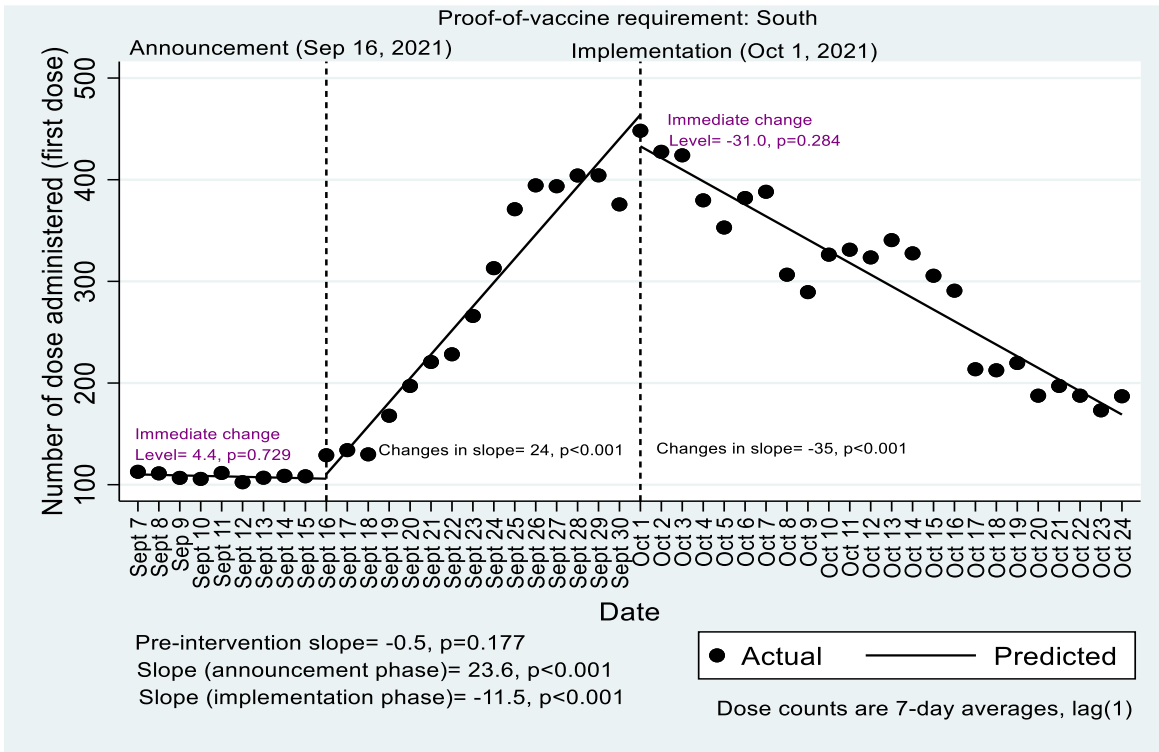
Full vaccination (2nd dose)



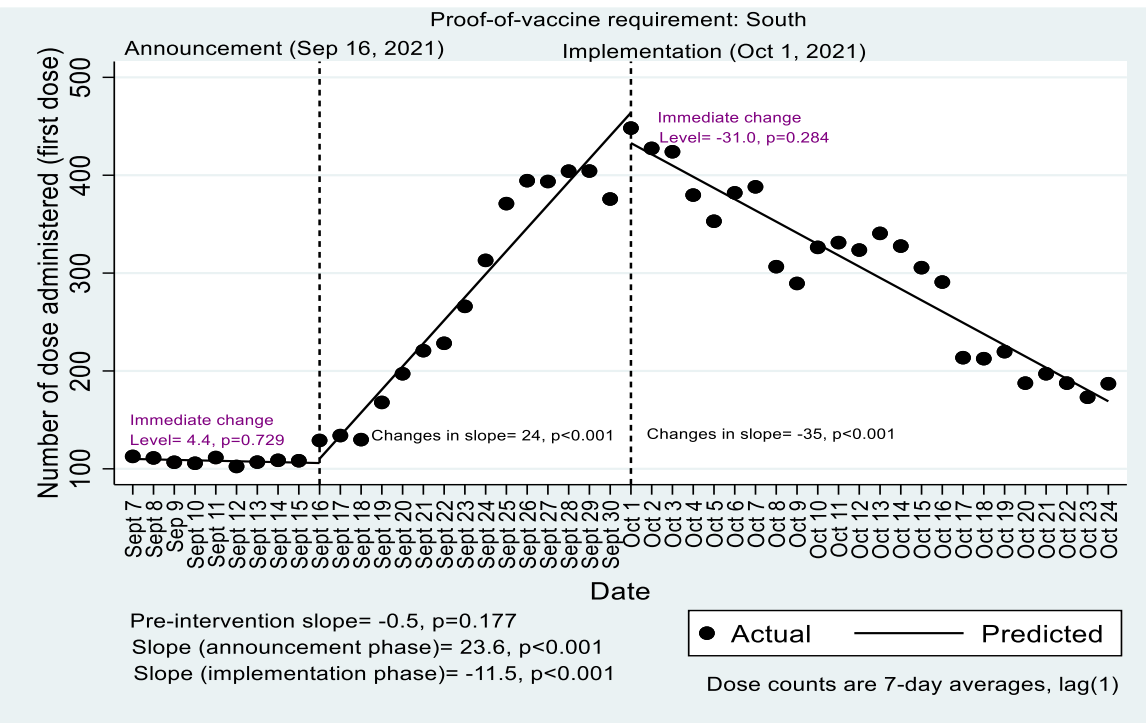
7. South: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



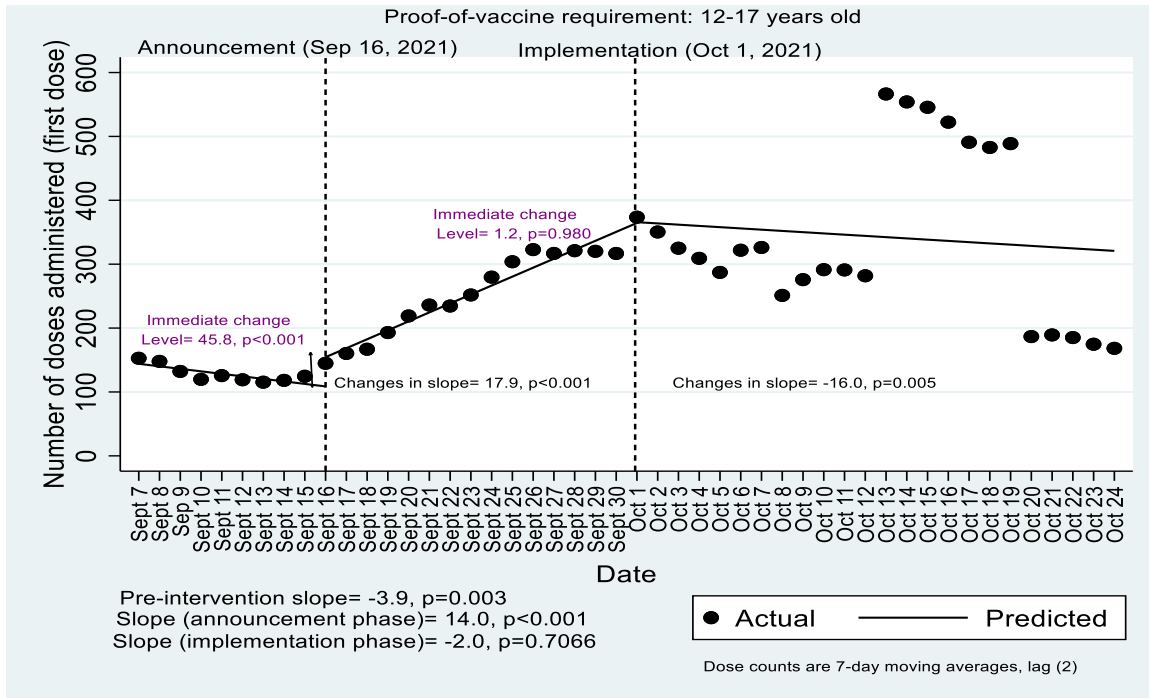
Full vaccination (2nd dose)



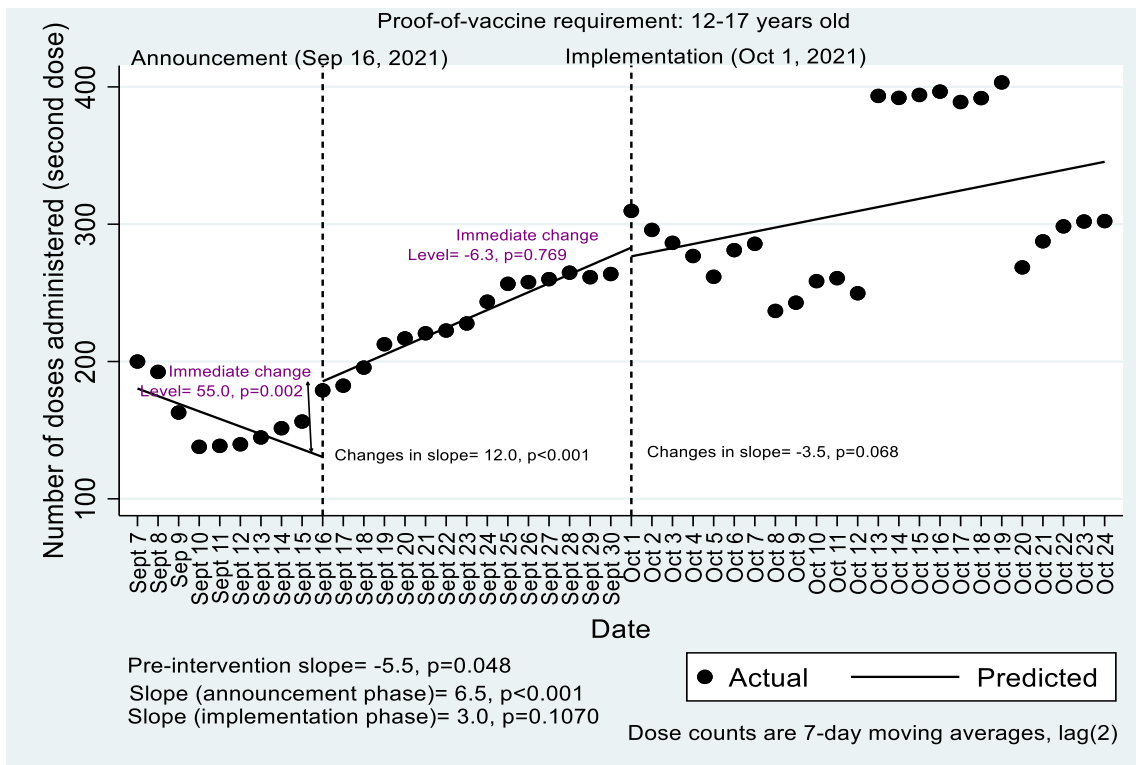
8. Age group 12-17 years: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



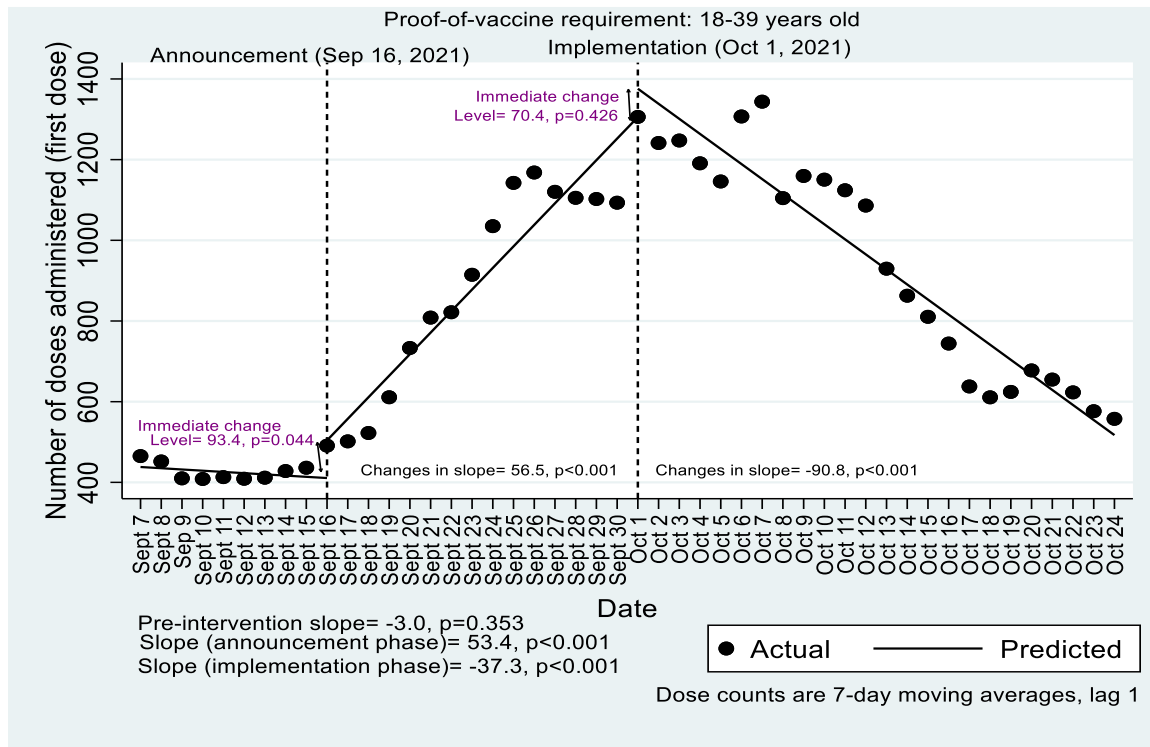
Full vaccination (2nd dose)



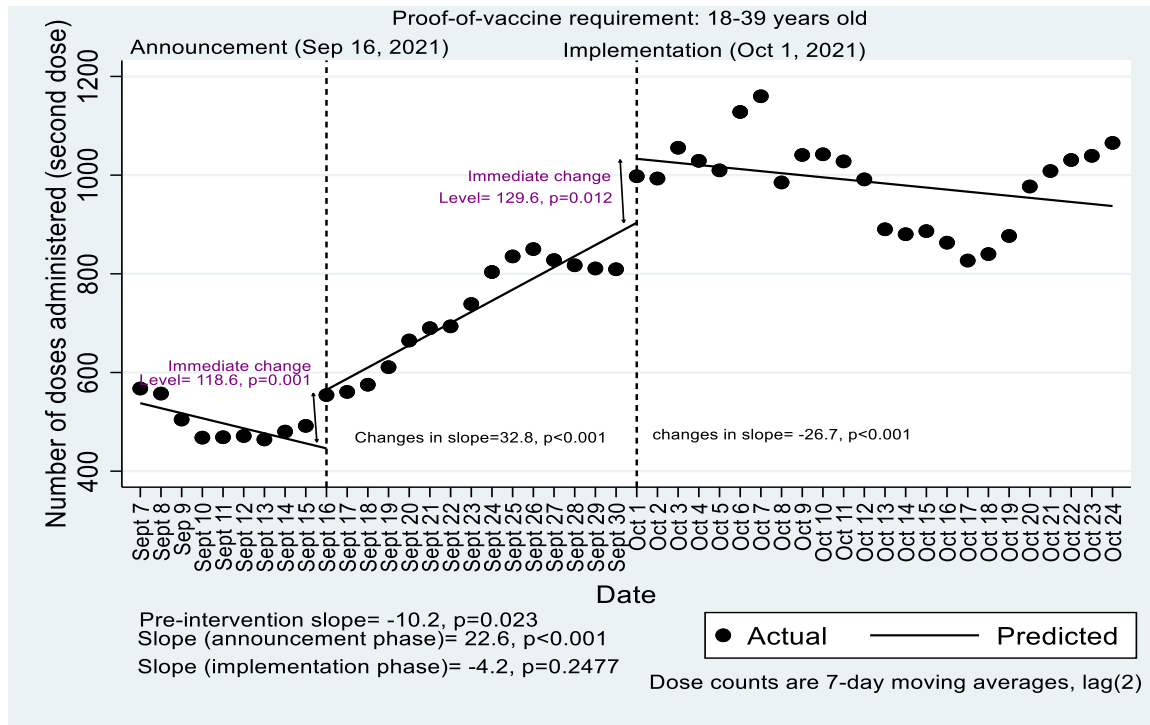
9. Age group 18-39 years: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



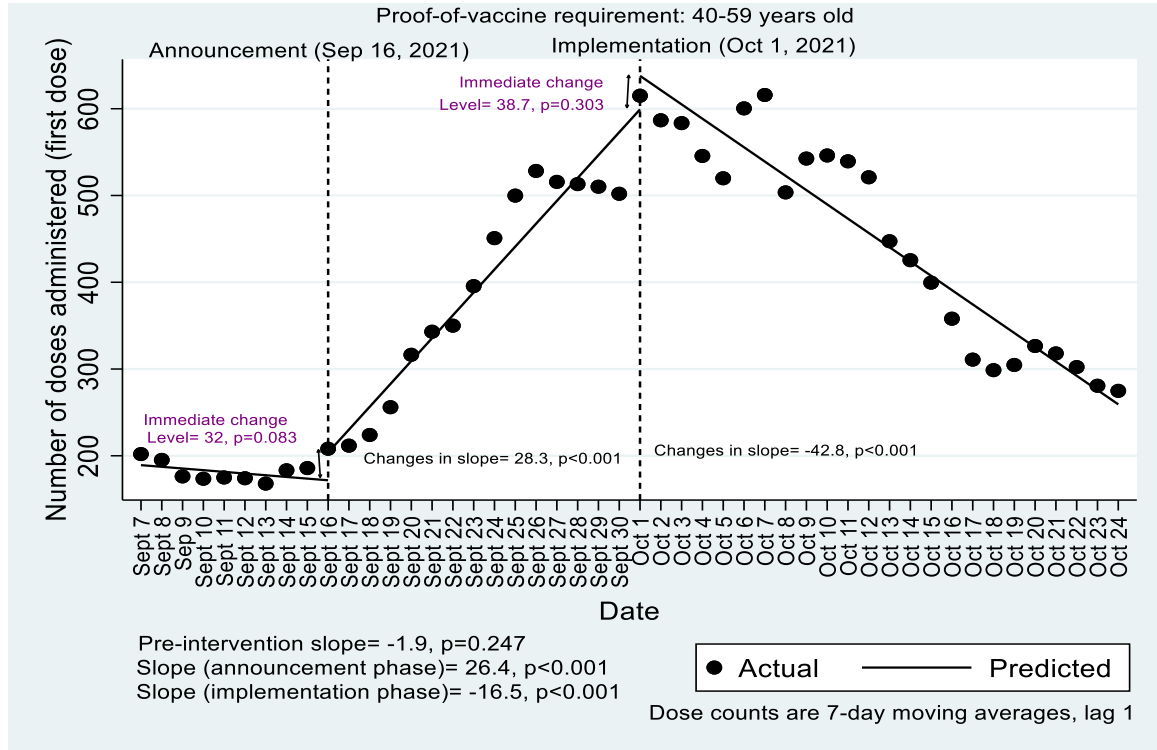
Full vaccination (2nd dose)



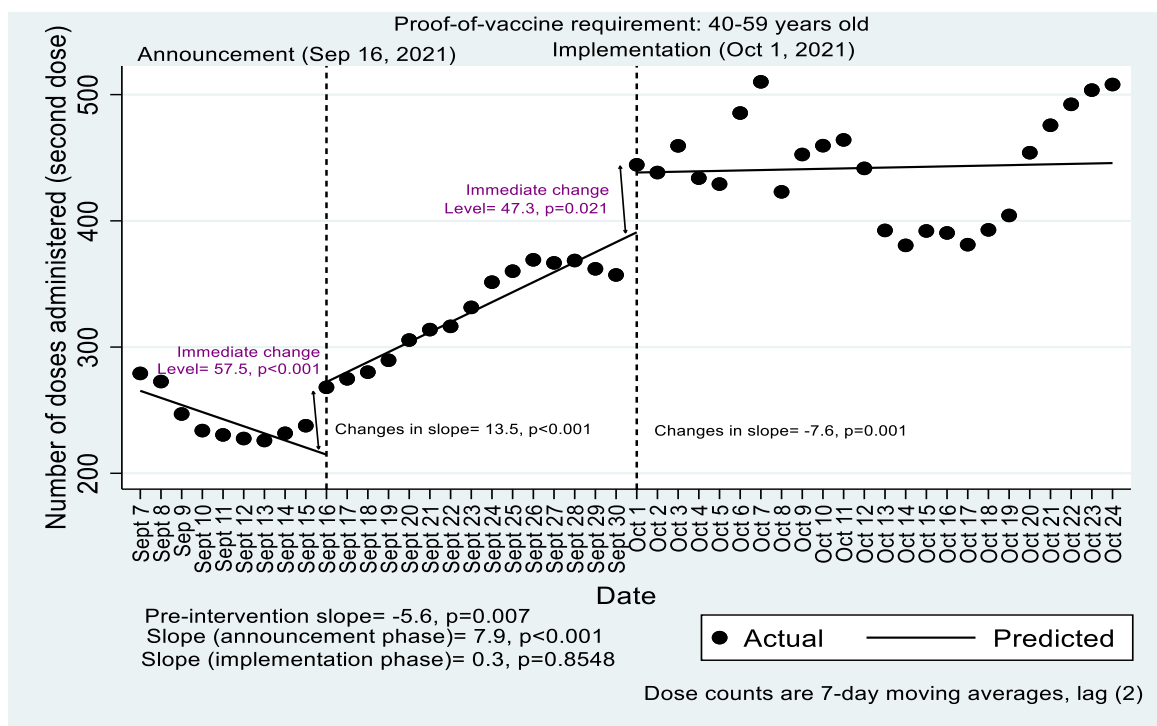
10. Age group 40-59 years: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



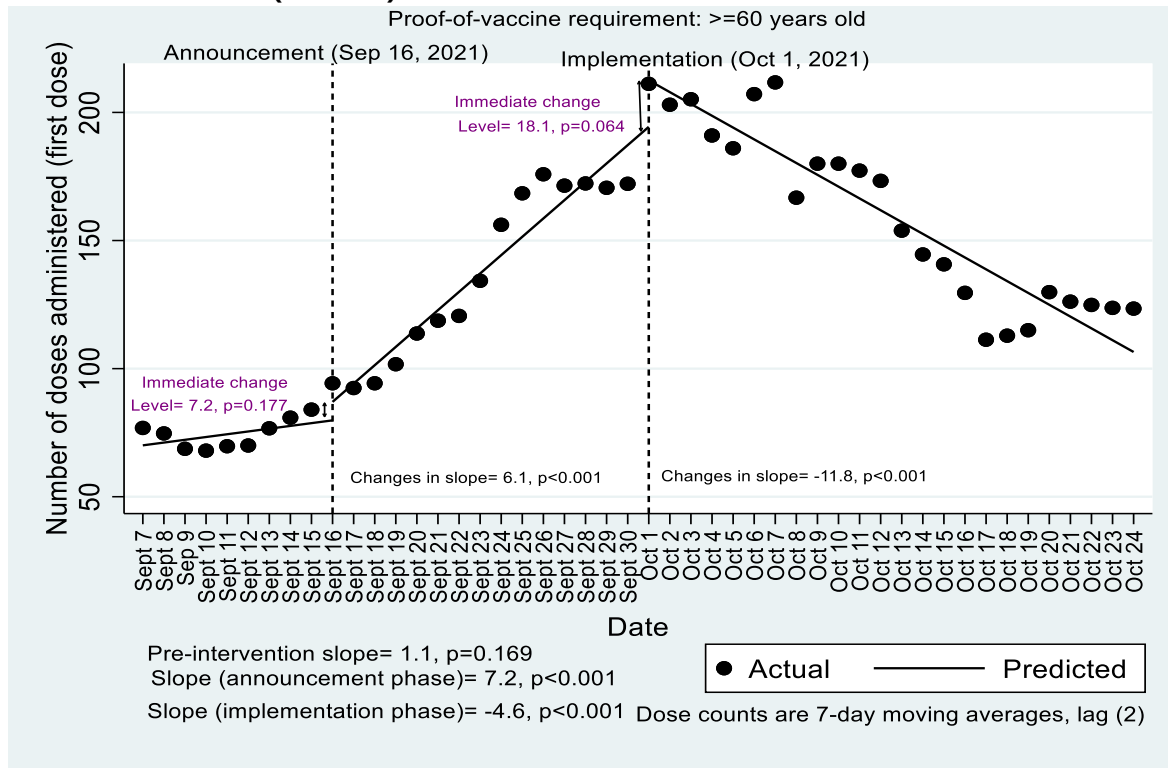
Full vaccination (2nd dose)



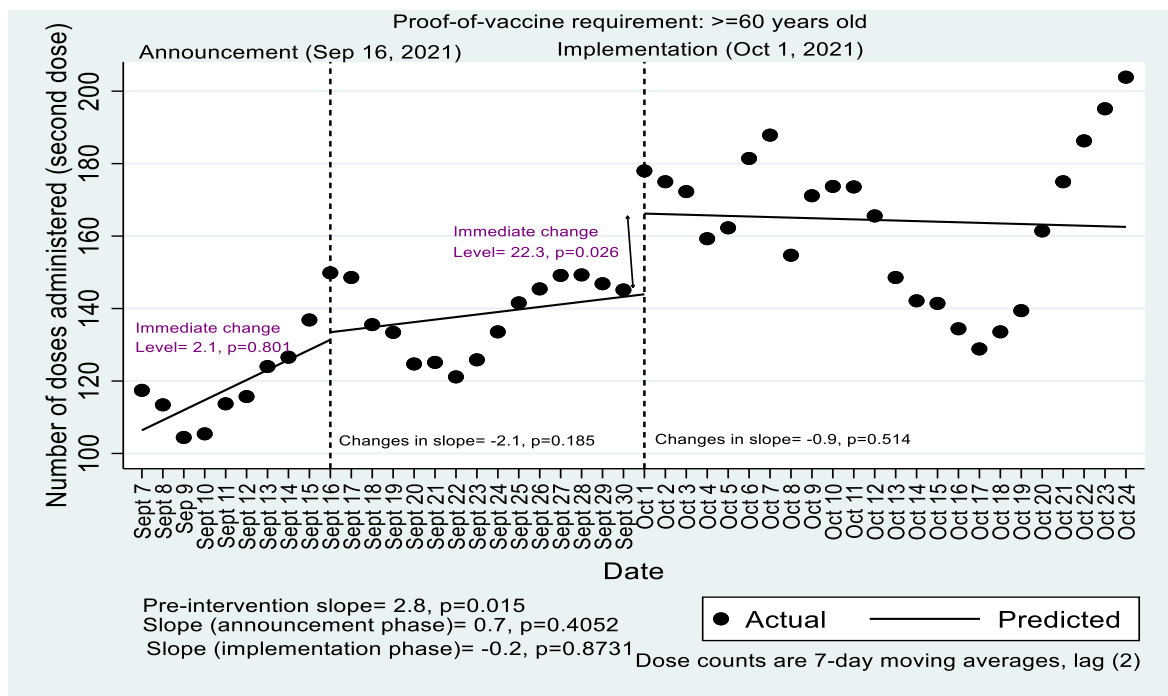
11. Age group ≥60 years: COVID-19 vaccination rates and proof of vaccination policies

interventions: proof of vaccination policy announcement (September 16, 2021) and implementation (October 1, 2021) dose counts are 7 day moving average, lag 1

Partial vaccination (1st dose)



Full vaccination (2nd dose)



For more Social Contours and COVID-19 Saskatchewan project:

<https://spheru.ca/covid-19/socialcontours/covid-19-results.php>

Social Contours and COVID-19

Principal Investigator: Dr. Nazeem Muhajarine

Saskatchewan Population Health and Evaluation Unit (SPHERU)

Department of Community Health and Epidemiology, University of Saskatchewan

t: 306-966-7940 e: nazeem.muhammad@usask.ca

For more information on the project visit: <https://spheru.ca/covid-19/socialcontours/covid-19.php> or email social.contouring@usask.ca