



PRIMARY CARE FOR DEPRESSION DURING THE COVID-19 PANDEMIC IN CANADA: A RETROSPECTIVE COHORT STUDY

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PRESENTER DISCLOSURE

Presenter: Michelle Howard

Relationships with financial sponsors:

 **Any direct financial relationships, including receipt of honoraria:**

Not applicable.

 **Membership on advisory boards or speakers' bureaus:**

Not applicable.

 **Patents for drugs or devices :**

Not applicable.

 **Other :**

Not applicable.

DISCLOSURE OF FINANC



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The authors disclose no financial relationships with industry.

BACKGROUND

- The lifetime prevalence of depression among primary care patients is approximately 14%.
- Depression is mostly managed in primary care.
- Early in SARS-CoV-2 pandemic, rate of new diagnoses of depression decreased, then rebounded to higher rates.
- Many resources in community to support mental well-being (e.g., social activities) were halted for many months.
- Groups disproportionately impacted by mental health issues – children, young adults, people from lower SES groups.
- Groups disproportionately impacted by reduced access to primary care – lower SES, essential workers.
- Primary care follow-up of new medication for depression important/recommended

OBJECTIVES

1. To compare primary care for depression in the acute phase following diagnosis among patients diagnosed before versus during the COVID19 pandemic .
2. To examine whether depression care for patients diagnosed before versus during the pandemic differed on sociodemographic and comorbidity characteristics .

METHODOLOGY

- **Pre - post quasi - experimental retrospective study.**
- De-identified electronic medical record (EMR) data from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN):
 - Approximately 2 million patients and 1500 primary care clinicians attached to 14 practice-based research and learning networks across 8 Canadian provinces and 1 territory.
- Patients with new depression diagnosis January 1, 2018, to December 31, 2021
- **Main exposure - Timing of diagnosis :**
 - Pre-pandemic: Jan. 1, 2018 – Dec. 31, 2019
 - Wave 1: Jan. 1, 2020 – Aug. 31, 2020
 - Wave 2: Sept. 1, 2020 – Feb. 14, 2021
 - Wave 3: Feb. 15, 2021– June. 30, 2021
 - Wave 4: July. 1, 2021– Dec. 31, 2021
- **Outcomes: Primary care visits and medication prescriptions (psychotropics & selective serotonin reuptake inhibitors) within 3 and 12 months of diagnosis.**

ANALYSES

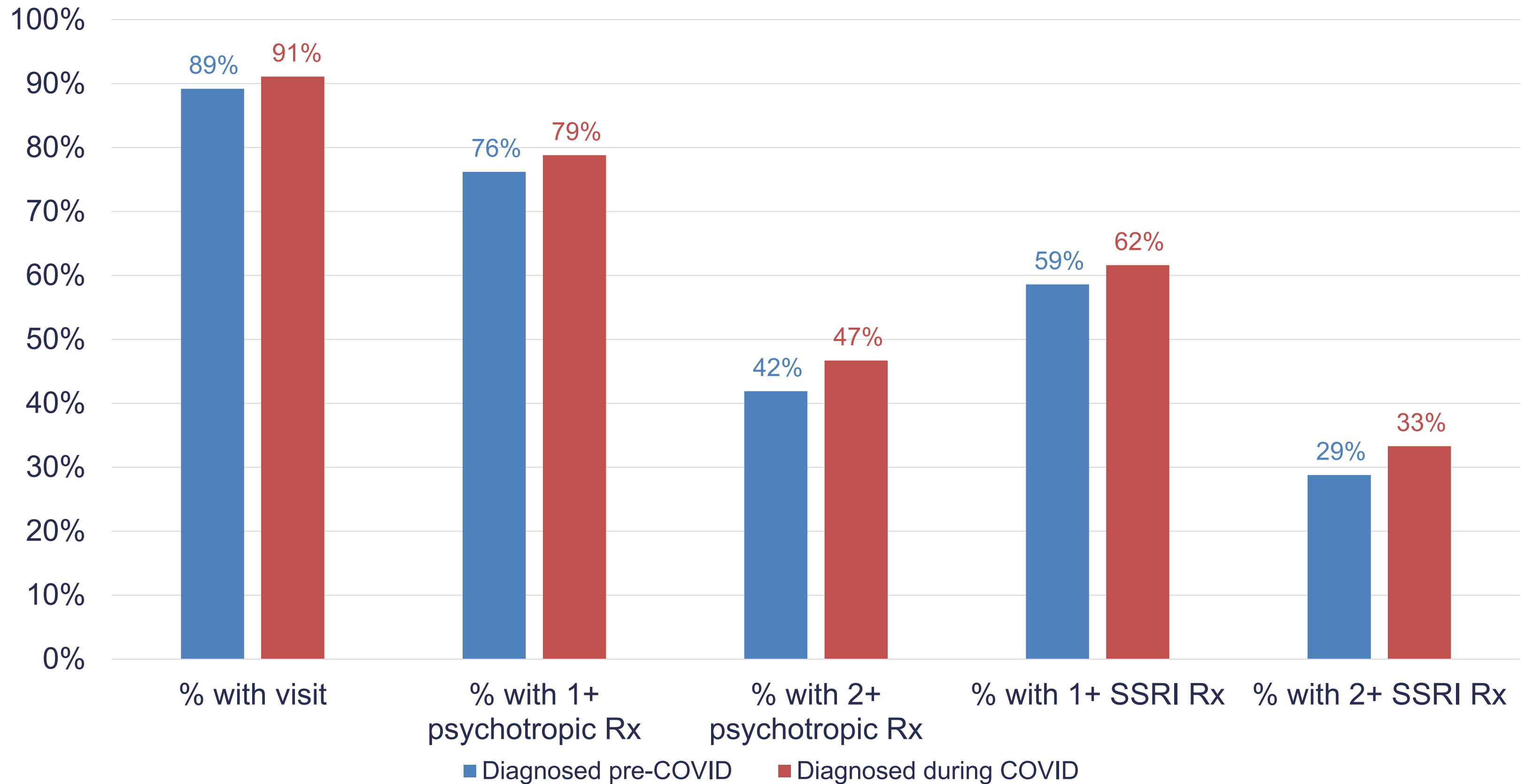
- Comparison of primary care patients diagnosed before versus during the COVID19 pandemic:
 - Number of visits and prescriptions within 3 and 12 months of diagnosis.
 - **Negative binomial regression models** adjusted for age (*ref: 60+ years*), sex (*ref: female*), rurality status (*ref: urban*), weighted neighbourhood -level social deprivation quintiles (*ref: quintile 1 – least deprived*), province (*ref: Ontario*), comorbidities, and prior history of psychotropic prescription (*ref: no prior history*).
 - **Adjusted incidence rate ratios (IRR)** and **95% confidence intervals (CI)** presented

RESULTS

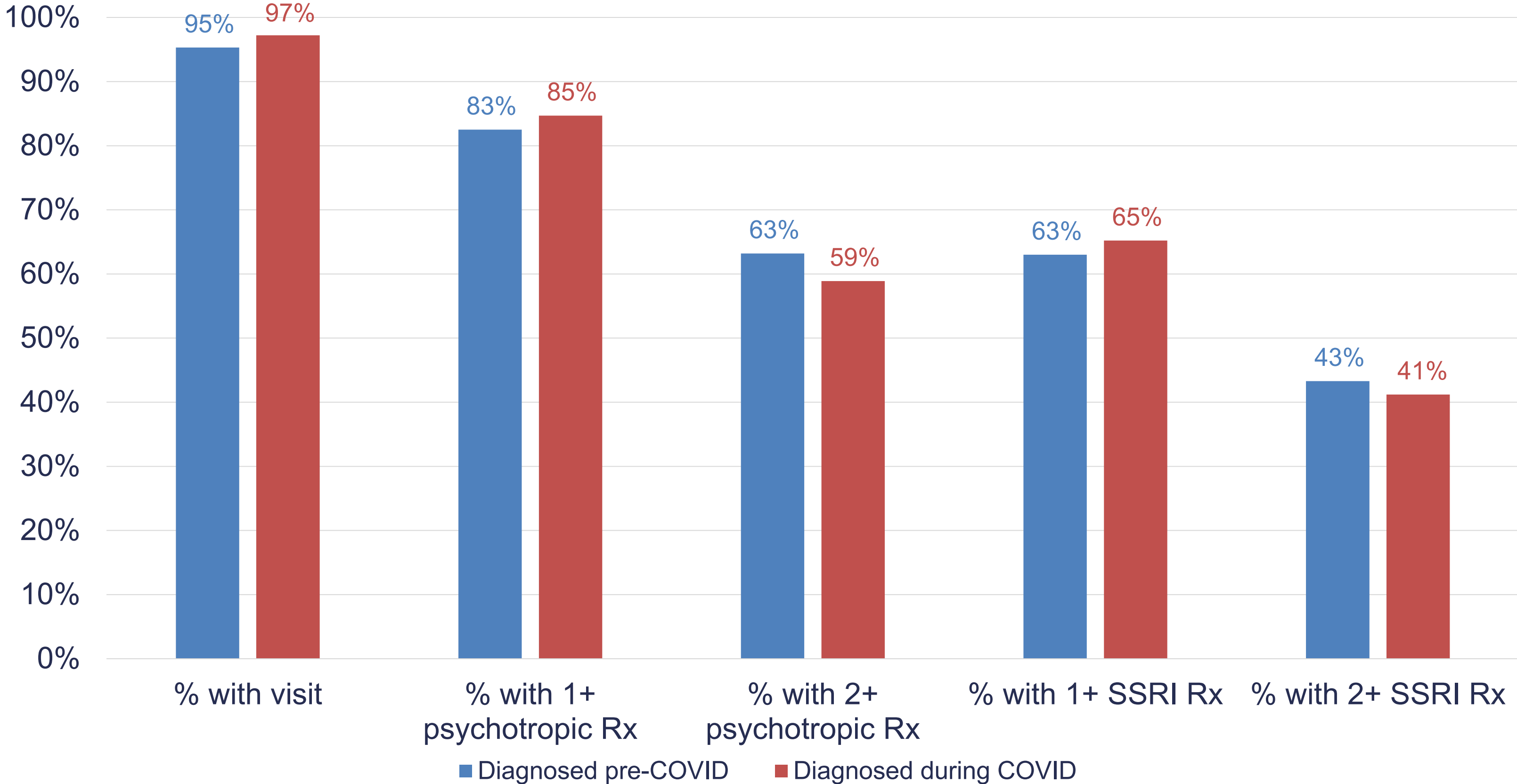
- **91,453 patients** diagnosed with depression, out of ~ 1.15 million active patients.
- Diagnosed:
 - Pre-pandemic: 53%
 - Wave 1: 14.3%
 - Wave 2: 11.5%
 - Wave 3: 9.4%
 - Wave 4: 12.1%
- Patients diagnosed **during the pandemic** were **younger and had fewer comorbidities**.

Characteristic	Overall (n=91,458)	Pre - Pandemic (53%)	During - Pandemic (47%)
Age group (years), %			
0-9	0.5	0.3	0.8
10-18	11	7	14
19-29	21	21	21
30-39	18	19	18
40-49	14	15	13
50-59	13	14	11
60+	22	24	21
Female, %	63	63	64
Weighted material social deprivation index quintiles, %			
1 (least deprived)	17	17	18
2	17	18	18
3	18	19	18
4	18	18	18
5 (most deprived)	20	20	19
missing	9	9	9
Number of prevalent pre-COVID conditions (of CPCSSN validated case definitions), Median (P25, P75)	1 (0, 2)	1 (1, 2)	0 (0, 1)
Province, %			
AB	21	22	20
BC	9	9	9
MB	10	10	10
Maritimes	5	5	5
NFLD	1	1	1
ON	49	48	51
QC	5	6	5

VISITS AND MEDICATIONS OF PATIENTS WITH DEPRESSION

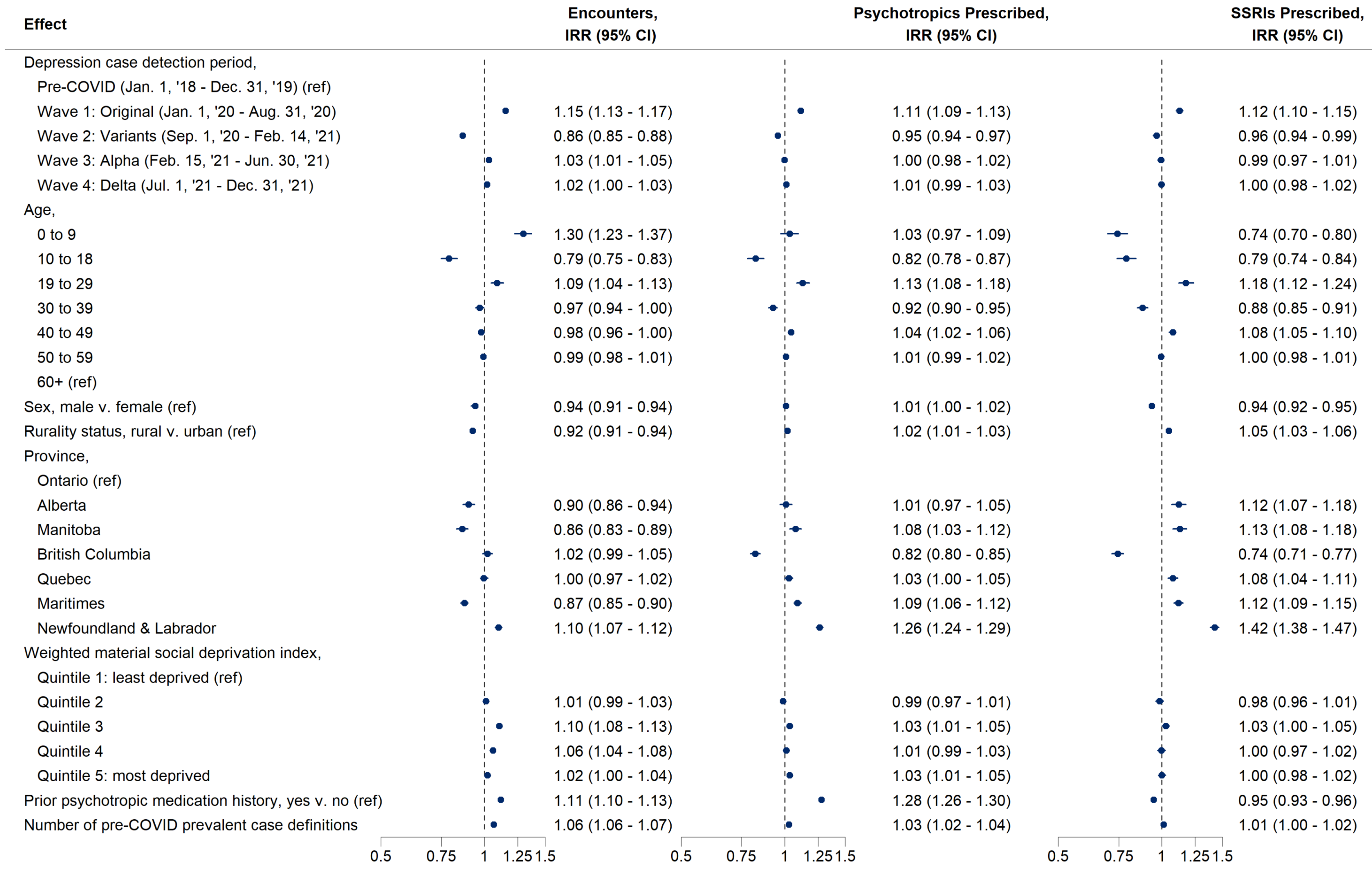


VISITS AND MEDICATIONS OF PATIENTS WITH DEPRESSION



PRIMARY CARE DEPRESSION WITHIN 3 MONTHS* DIAGNOSIS

*Trends at 12 months similar



DISCUSSION

- Intensity of care during 3 -month post -diagnosis period **increased** for patients diagnosed **during the pandemic** versus those diagnosed previously.
 - Controlling for demographics, comorbidity, patients diagnosed in **Wave 1** had a **higher rate of encounters and SSRI prescriptions during first 3 months after diagnosis** compared to patients diagnosed before the pandemic.
- Age, rural location, comorbidities associated with care intensity during first 3 months post-diagnosis, independent of timing of diagnosis :
 - Young children (0-9 years) had higher encounter rates and lower SSRI prescriptions rates compared to older adults (60+ years).
 - Young adults (19-29 years) had higher encounter, psychotropic and SSRI prescriptions rates compared to older adults.
 - Slightly lower encounter rates and higher psychotropic and SSRI prescription rates for patients in rural locations.
 - Slightly higher encounter, psychotropic and SSRI prescriptions rates for patients with more comorbidities.
- **No clear gradients** across **neighbourhood deprivation quintiles** for either visits nor prescriptions.

INTERPRETATION

- Concerning increase in diagnosis in children, but physicians appeared to be considering the risk - reward balance of medication regardless of diagnosis during pandemic.
- Increase in SSRI in ages 19 -29 may have long term implications given tendency for legacy prescribing.

LIMITATIONS

- Case definition for depression was validated in age group 65+.
- Could not distinctly identify patients with anxiety disorders
- Neighbourhood deprivation index can be imprecise

CONCLUSIONS

- **No one left behind? Same or increased care for depression in primary care during most challenging pandemic periods.**
- **No large differences in primary care -based treatment of depression across material social deprivation quintiles and rurality, possibly supported by virtual care.**
- **Shift toward more diagnoses among children and pharmacologic treatment in young adults should be monitored going forward.**

THANK YOU!



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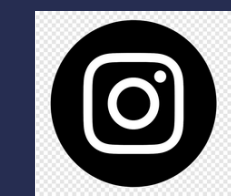
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