

Diagram style

- ☒ classic
- ☐ SEM-like

View mode

- ☒ normal
- ☐ moral graph
- ☐ correlation graph











Coloring

- ☒ causal paths
- ☒ biasing paths
- ☒ ancestral structure

Effect analysis

- ☐ atomic direct effects

Legend

-  exposure
-  outcome
-  ancestor of exposure
-  ancestor of outcome
-  ancestor of exposure and outcome
-  adjusted variable
-  unobserved (latent)
-  other variable
-  causal path
-  biasing path

Summary

exposure(s) **ART with II vs no II**

outcome(s) **DT**

covariates **7**

causal paths **3**

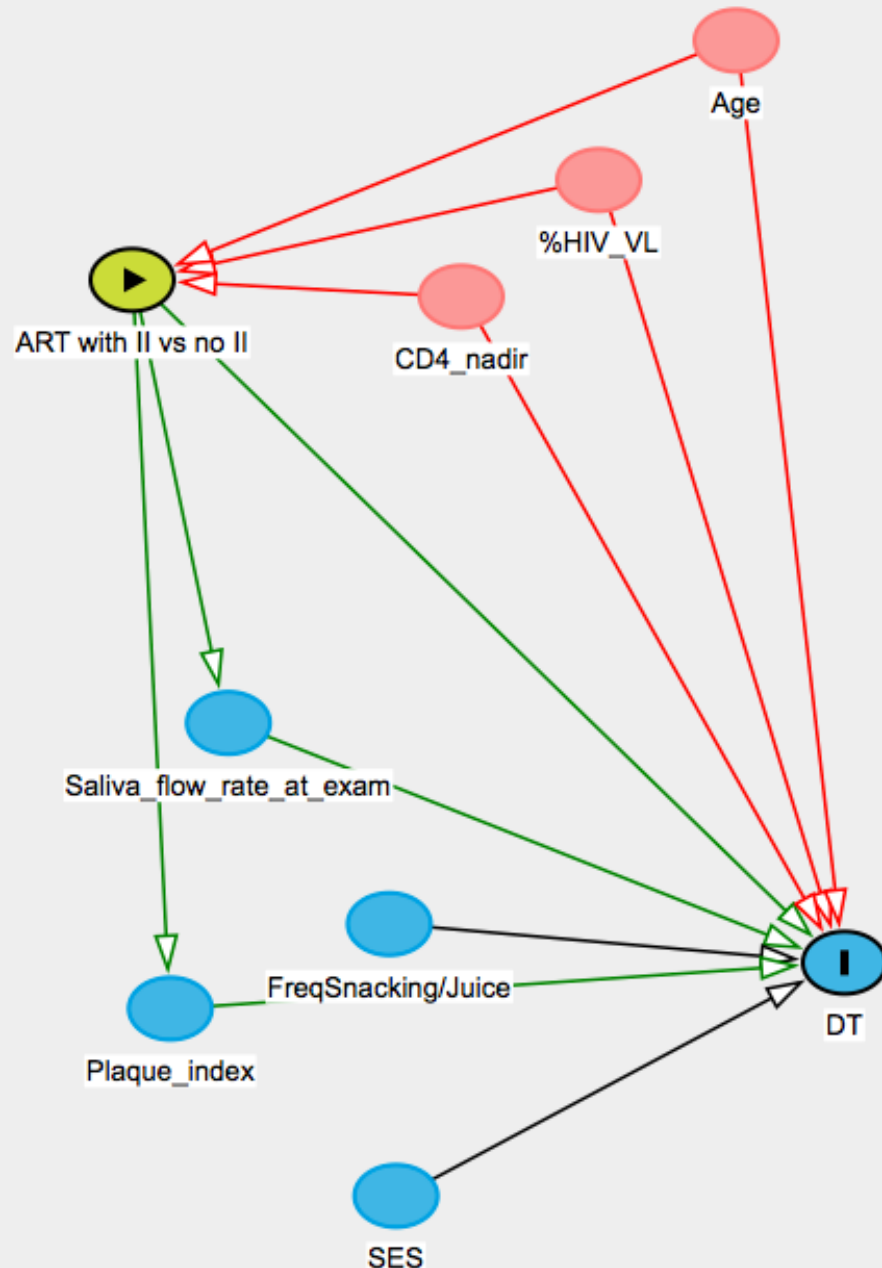
Model

Examples

How to ...

Layout

Help



Causal effect identification

Adjustment (total effect)

Minimal sufficient adjustment sets for estimating the total effect of ART with II vs no II on DT:

- %HIV_VL, Age, CD4_nadir

Testable implications

The model implies the following conditional independences:

- ART with II vs no II \perp FreqSnacking/Juice
- ART with II vs no II \perp SES
- %HIV_VL \perp CD4_nadir
- %HIV_VL \perp Age
- %HIV_VL \perp Saliva_flow_rate_at_exam | ART with II vs no II
- %HIV_VL \perp FreqSnacking/Juice
- %HIV_VL \perp Plaque_index | ART with II vs no II
- %HIV_VL \perp SES
- CD4_nadir \perp Age

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Model code

```
%25HIV_VL 1 @0.700,0.243
ART%20with%20II%20vs%20no%20II
E @0.298,0.314
Age 1 @0.818,0.143
CD4_nadir 1 @0.581,0.326
DT 0 @0.911,0.802
FreqSnacking%2FJuice 1
@0.519,0.774
Plaque_index 1 @0.331,0.835
SES 1 @0.525,0.969
```

Supplemental Figure 1. Directed Acyclic Graph (DAG) to distinguish between confounders, mediators, and covariates in a regression model to assess the association between ART exposure and decayed teeth

Supplemental Table 1. HIV disease severity (history of, and current) among 209 perinatally HIV-infected (PHIV) youth participating in the Oral Health study in the AMP/PHACS¹

HIV disease severity	n (%)	Median (Q1, Q3)
Life time history:		
% RNA measurement > 400 copies/mL ²		45.3 (19.6; 69.8)
CD4 cell count nadir (cells/mm ³)		300 (152; 448)
CD4 cell count nadir < 200 cells/mm ³	70 (33)	
History of AIDS-defining illness	51 (24)	
Current³:		
HIV RNA (copies/mL)		40 (20; 1760)
HIV RNA > 400 copies/mL	66 (32)	
CD4 cell count (cells/mm ³)		626 (441; 825)
CD4 cell count < 350 cells/mm ³	38 (18)	

¹ Adolescent Master Protocol (AMP) of the Pediatric HIV/AIDS Cohort Study (PHACS)

² % among lifetime number of VL assays measured as part of AMP/PHACS; 1 missing value

³ Clinical indicator measured at or within 90 days of the AMP/PHACS oral study visit

Supplemental Table 2. Among 143 perinatally HIV-infected youth participating in the Oral Health study in the AMP/PHACS¹ and having received the same cART² for the past year prior to oral health study entry: Exposure to non-nucleoside reverse transcriptase inhibitors (NNRTI) as part of cART regimen by periodontal outcomes

	cART no NNRTI N=100	cART with NNRTI N=43	Total	P-value
Periodontal disease				
N (%)				
- None	15 (15)	14 (33)	29 (20)	0.06 ³
- Gingivitis	41 (41)	18 (42)	59 (41)	
- Mild Periodontitis	18 (18)	7 (16)	25 (17)	
- Moderate Periodontitis	23 (23)	4 (9)	27 (19)	
- Missing	3 (3)	0	3 (2)	
Teeth with 2-6 BOP sites⁴				
- Mean (SD)	10.0 (7.7)	7.9 (7.3)	5.1 (4.5)	0.09 ⁵
- Median (Q1, Q3)	9 (3; 15)	5 (2; 14)	4 (1; 8)	

¹ Adolescent Master Protocol (AMP) of the Pediatric HIV/AIDS Cohort Study (PHACS)

² cART was defined as any regimen containing at least three drugs from at least two drug classes.

³ Chi-Square Test

⁴ BOP: bleeding on probing is measured on 6 sites per tooth. This variable represents number of teeth with at least 2 sites exhibiting BOP. 3 participants on cART without NNRTI missing information

⁵ Wilcoxon Rank Sum Test