

CVFS Young Adult Longitudinal Study of Sex, Contraception, and Substance Use in Nepal

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CVFS Young Adult Study

Scientific objectives

Study design and data collection

Baseline findings

Longitudinal follow-up findings

Nepal (CVFS) Young Adult Study: Scientific Objectives

Provide young adults (15-25) a private, confidential method for reporting potentially sensitive topics

Measures to assess events that change rapidly

Follow these same young adults to repeat measures – as they leave their parental home and travel for school, work or marriage



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Study Design Overview (2/23/22)

Sample recruitment

Human subjects protections

Contact protocol

Instrument design

Sample Recruitment

Everyone aged 15-25 as of April 2021 as reported in the household registry for the updated CVFS sample (refreshed in 2016)

Parental consent and age verification for those aged 15-17

Respondent birthdate verification for all respondents

- Because of known age heaping in the household registry age records, each individual age was verified, with those younger than 15 or older than 25 dropped from the study

Age-appropriate informed consent

Study Design Overview

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Human Subject Protections

- Recruitment of subjects
- Informed consent/assent
- Privacy screener
- Responses directly to University of Michigan secure server

IRB approvals: U-M IRB-HSBS, Nepal Health Research Council (NHRC)

Recruitment

- For Minors: Parent/guardian of subjects ages 15-17 years contacted by phone BEFORE contacting the minor subjects
- For Minors: Staff member explained the study to the parent, and obtained permission for their child's participation in the study
 - Waiver of documentation of parent consent was obtained
- For All: Respondents (age 15-25) invited to participate via email invitation, or if no email, via advanced letter to the respondent's home
 - No in-person recruitment

Informed Consent/Assent

- Invitations to recruit all subjects ages 15-25 years contained a brief description of the study and a unique link to the baseline web survey
 - Comprehensive written consent or assent obtained prior to starting the survey
- For telephone surveys, interviewers read the entire consent/assent form to the respondent and addressed any respondent questions
- The baseline interview began AFTER consent/assent was obtained from the respondent
- Waiver of documentation of consent/assent was obtained

Privacy and Age Screener

- Do you have privacy to answer the survey questions now?
 - NO:
 - It's important for participants to have privacy while taking this survey. We request that you take the survey when you are able to find a private place. Thank you for your time today.
 - YES:
 - What year were you born?
 - What is your birth month?
 - What is your birth day?
 - AGE \neq 15-25 years
 - INTERVIEW ENDS
 - AGE = 15-25 years
 - INTERVIEW CONTINUES

Security of Responses

Web surveys were administered directly from University of Michigan, Survey Research Center secure servers

Telephone interviewers in Nepal also accessed the survey questionnaire on the same secure servers to enter respondents' answers

As soon as each answer is entered, the responses are saved on a secure server at Michigan

This approach is highly secure and ensures confidentiality for respondents

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Contact Protocol

Emailing an initial invitation to every respondent who had a valid email address; the body of the email contained a unique survey link

If a respondent did not have an email address, delivered a paper invitation with the unique survey link embedded in a QR code

Each respondent received up to 2 more email reminders, 3 text reminders, **and** 2 phone call reminders to participate via the web

At a defined point in time, all respondents who had not yet completed the web survey were transitioned to the telephone interview protocol

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Instrument Design

Chitwan Valley Family Study (CVFS) individual interviews

American Family Health Study (AFHS)

Family Migration and Early Life Outcomes (FAMELO)

World Mental Health (WMH) survey college student studies

Relationship Dynamics and Social Life (RDSL)

CVFS Young Adult Study

Scientific objectives

Study design and data collection (back to updates!)

Baseline findings

Longitudinal follow-up findings

Data Collection: Methods and Operations

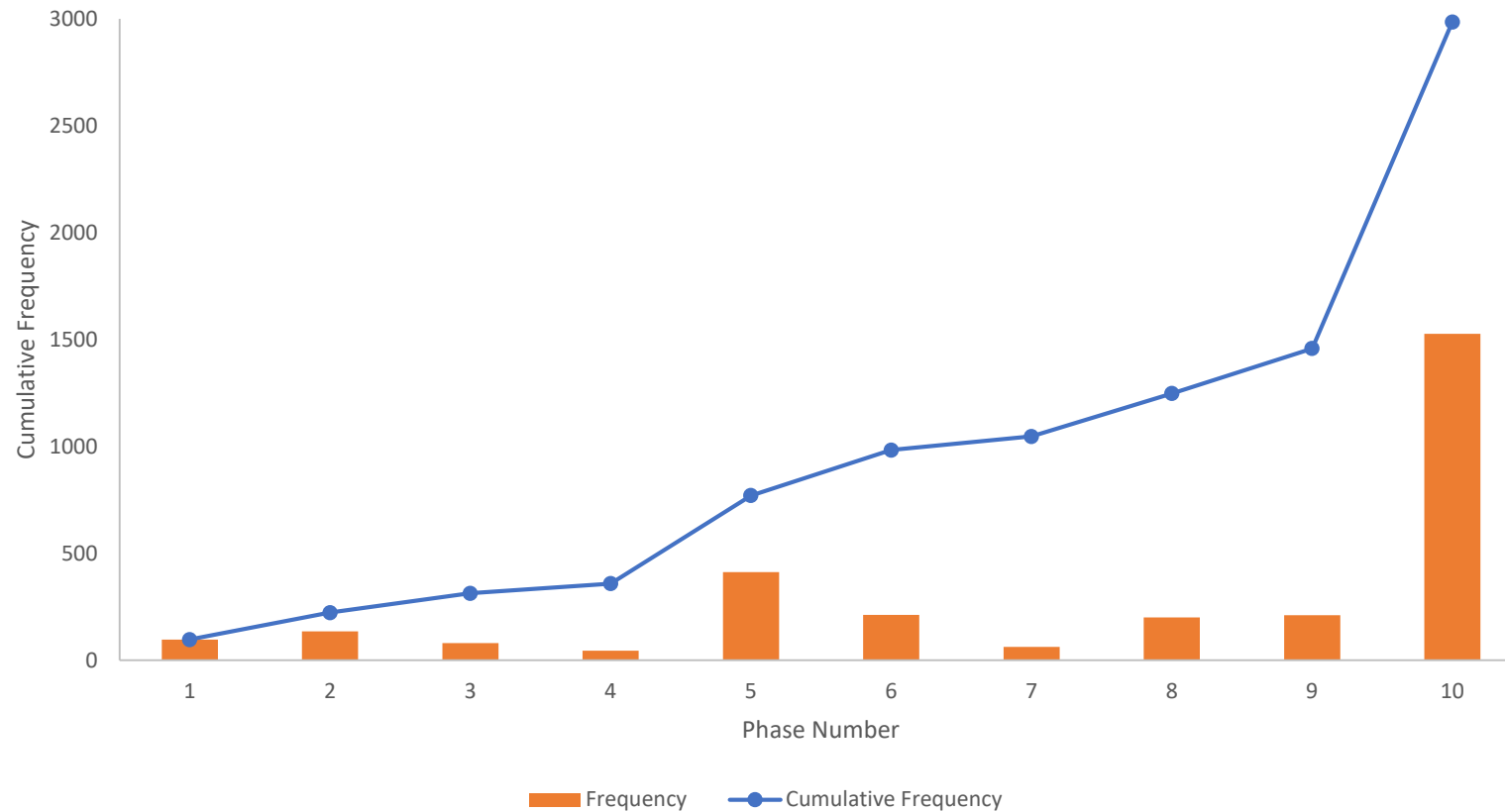
- Sequential multimode data collection – first web survey, with an interviewer-administered phone option for respondents who do not complete the survey on the web
- Multimode reminders to participate: mail, email, text message, and phone calls
 - Sample management system used by interviewers in Nepal to manage and track contact attempts
- A mobile-friendly web-based format to collect monthly sex and contraceptive use history (2-year retrospective)
- All data transmitted to secure servers in Michigan, USA

Contact Protocol Steps

1. Email (38%)/delivered letter invitation (remaining 62%)
2. Email reminder #1 (with embedded survey link)
3. Email reminder #2 (with embedded survey link)
4. SMS text reminder #1 (with embedded survey link)
5. Reminder phone call #1 (with offer to re-send email and/or text)
6. SMS text reminder #2 (with embedded survey link)
7. Email reminder #3 (with embedded survey link)
8. Reminder phone call #2 (with offer to re-send email and/or text)
9. SMS text reminder #3 (with embedded survey link)
10. Switch to CATI phase (interviewer-administered)

Baseline Interviews by Protocol Step

Baseline Completes



Response Rate

- From 3,404 CVFS young adults ages 15-25, **2,999** completed at least a portion of the baseline survey (response rate = 88.1%)
- 58% completed the survey during web phase; 42% completed the survey during phone phase
- The mean survey length was 14.5 minutes

Table 1. Logistic regression: Predicting Response Using Respondent Characteristics

	Odds Ratio (95% CI)
Female	1.08 (0.88, 1.33)
Age (15-19 = 1)	1.47** (1.17, 1.85)
Out of Nepal	0.15*** (0.11, 0.19)
Ethnicity (Reference = High caste Hindu)	
Dalit	0.97 (0.70, 1.34)
Hill Janajati	0.86 (0.65, 1.12)
Newar	0.52** (0.35, 0.77)
Terai Janajati	1.12 (0.82, 1.52)
Number of Observations	3421
-2LL	2514.50***
*p<.05, ** p<.01, ***p<.001	

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Baseline Findings

Baseline Estimates of Key Demographic Factors and Key Outcomes of Interest

Assessment of Interview Mode Differences (Adding Phone Interviewing to the Web Survey)

Key Baseline Statistics



Characteristics at Baseline

Baseline characteristics (<i>n</i> = 2985)	%
Age (years)	
15-17	21
18-21	42
22-25	37
Educational attainment	
9 th grade or less	25
10 th grade (SEE., S.L.C., or Equivalent)	30
12th grade (I.A. or Equivalent)	36
B.A., M.A., Ph.D., or Equivalent	7
Ever employed	39

Characteristics at Baseline (2)

Baseline characteristics (<i>n</i> = 2985)	%
Ever in a relationship	38
Ever married	16
Ever had premarital sex	27
Married but never had sex	13
Ever used contraception	25
Sex in the past 24 months	22

Characteristics at Baseline (3)

Baseline characteristics (<i>n</i> = 2985)	%
Ever used alcohol	24
Used alcohol in the past 12 months	20
Ever felt the need to cut down	
Yes, but not in the last year	2
Yes, in the last year	6

Examining the Mixed Mode Method

- How did adding the phone mode change our estimates?
- What predicts who used the web mode?
- Did adding a second mode add anything interesting?

Impact of Adding Phone Mode

	Web IWs	Web + Phone IWs
12+ Years of Education	47.25%	<u>42.94%</u>
Ever Married	12.06%	<u>16.15%</u>
Ever Worked	36.58%	38.89%
Ever Alcohol	23.59%	24.29%
Ever Contraceptive Use	22.67%	24.12%
Ever Sex	17.97%	<u>25.98%</u>
Ever Premarital Sex	9.62%	<u>12.33%</u>

Table 3. Logistic regression: Predicting Odds of Mode Choice: Web (=1) v. Phone(=0)

	Base Demographics	+ Education, Work and Marriage
Education (10 years or more = 1)		1.21* (1.01, 1.44)
Ever Worked for Pay (Yes = 1)		1.02 (0.86, 1.21)
Ever Married (Yes = 1)		0.55*** (0.44, 0.68)
Female	0.89 (0.77, 1.04)	0.96 (0.82, 1.12)
Age (15-19 =1)	1.22* (1.05, 1.42)	1.12 (0.95, 1.33)
Out of Nepal	0.24*** (0.16, 0.35)	0.23*** (0.15, 0.34)
Ethnicity (Reference = High caste Hindu)		
Dalit	0.74** (0.59, 0.93)	0.84 (0.66, 1.07)
Hill Janajati	0.91 (0.75, 1.11)	0.99 (0.81, 1.21)
Newar	0.96 (0.68, 1.34)	0.93 (0.65, 1.31)
Terai Janajati	0.88 (0.72, 1.09)	1.02 (0.82, 1.26)
Number of Observations	2960	2960
-2LL	3931.64***	3884.71***

*p<.05, **p<.01, ***p<.001

Table 4. Multivariable Logistic Regressions Predicting Odds of Responses to Questions

	Alcohol Use (24.5%)	Contraceptive Use (26.6%)	Pre-Marital Sex (12.8%)	Ever Married, Never had Sex (13.2%)	
Web mode (yes = 1)	0.96 (0.78, 1.18)	1.11 (0.92, 1.18)	0.63*** (0.50, 0.79)	17.06*** (7.09, 41.03)	
Number of Observations	2939	2682	2850	477	
-2LL	2412.42	2856.68	2018.51	293.02	

Controlling for Female, Age, Out of Nepal, and Ethnicity

CVFS Young Adult Study

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Improved Contact Info for Follow-up

At beginning of first follow-up data collection:

Email addresses **up from 38% to 48%**

Phone numbers **up from 59% to 90%**

Both **up from 35% to 46%**

As expected, the respondents who completed the baseline have more complete contact information, but we also were able to improve rates by explicitly asking respondents to update info at end of survey.

Reducing Longitudinal Attrition by Allowing Mode Switching at Every Interview

- The CVFS Young Adult Study allows respondents to choose either web or phone at every interview
- For more about the benefits of this design see:

Axinn, William G., Heather H. Gatny, and James Wagner. 2015. "Maximizing Data Quality using Mode Switching in Mixed-Device Survey Design: Nonresponse Bias and Models of Demographic Behavior." Methods, Data, Analyses 9(2):163-184.

Wagner, James, Mick P. Couper, William G. Axinn, and Heather Gatny. 2019. "The Utility of a Follow-Up Interview for Respondents to a Longitudinal Survey with Frequent Measurement." Social Science Research 82:113-125.

Re-interview (1st Follow Up) Results

- 2848 Respondents completed the re-interview: **96.2% RR**

Baseline Mode	Follow Up Mode Phone	Follow Up Mode Web	Total
Phone	629 (55.3%)	509 (44.7%)	1138 (100%)
Web	465 (27.2%)	1245 (72.8%)	1710 (100%)
Total	1094 (38.4%)	1754 (61.6%)	2848

The CVFS Young Adult Panel has Completed Five Waves of data Collection

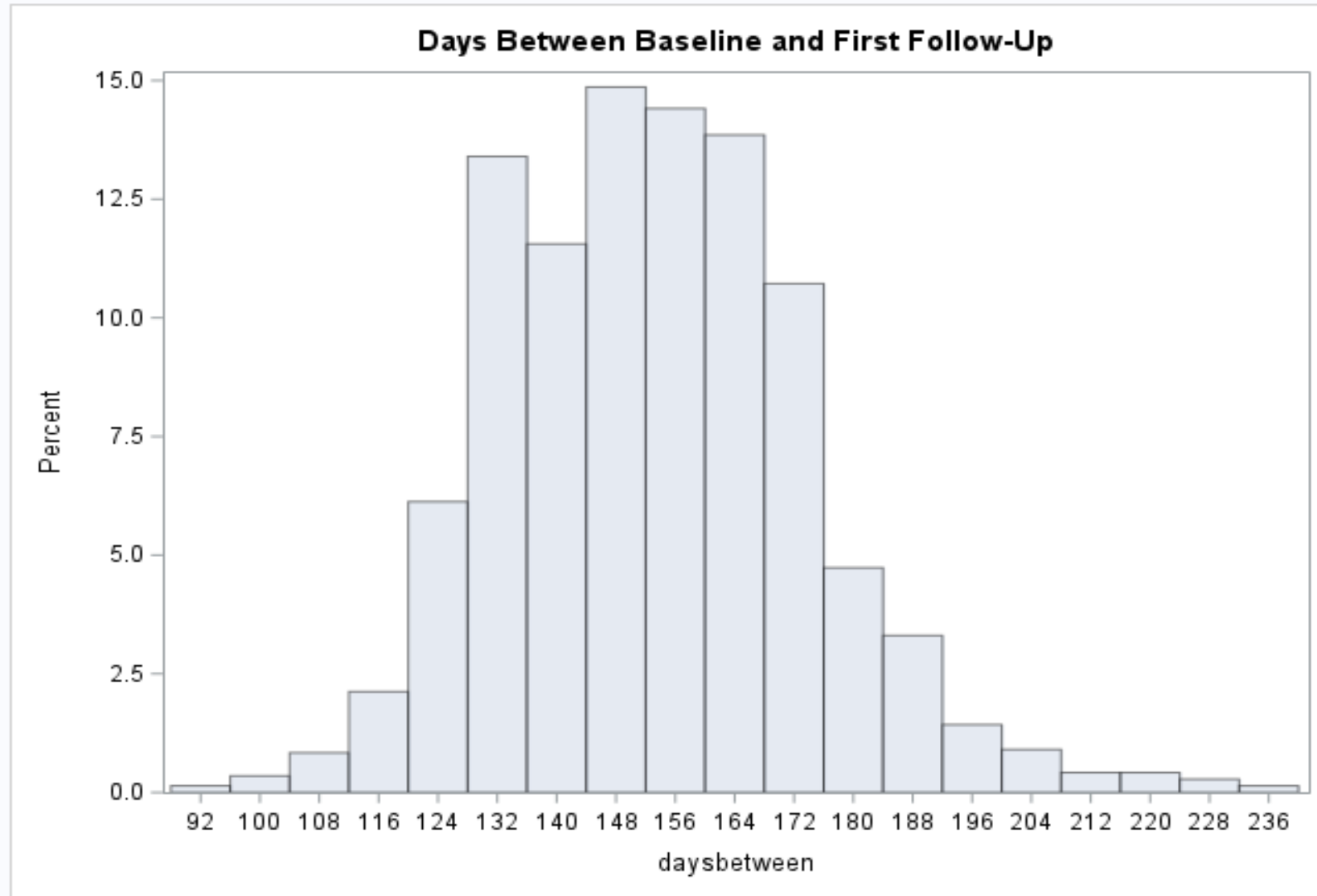
- The study is currently completing wave six, which completes two full years of longitudinal measurement
- We are currently over 90% retention of these young adults across that time
- Here we show a few results documenting change from the Wave 1 (baseline) through wave 5

Dates of Data Collection Waves

Wave 1 (Baseline)	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
15 Sep 21 - 03 Jan 22	02 Mar 22 - 25 May 22	27 Jun 22 - 15 Sep 22	14 Nov 22 - 05 Feb 23	08 May 23 - 28 Jul 23	16 Nov 23 - 28 Feb 24

Days Between Baseline and First Follow-Up

The UNIVARIATE Procedure



Change from Wave 1 (baseline) to 5

Baseline to 4 th follow-up characteristics (<i>n</i> = 2986)	%
Ever married	
At baseline	16
By wave 5	23
Ever had sex	
At baseline	26
By wave 5	44

Change from Wave 1 (baseline) to 5

Baseline to 4 th follow-up characteristics (<i>n</i> = 2986)	%
Ever used alcohol	
At baseline	24
By wave 5	34
Ever used marijuana	
At baseline	5
By wave 5	7

Change from Wave 1 (baseline) to 5

Baseline to 4 th follow-up characteristics (<i>n</i> = 2986)	%
Ever used contraception	
At baseline	24
By wave 5	44

New CVFS Young Adult Study: Next Steps



Next Steps

- Examining the sex and contraceptive use history calendar measures
- Merging calendars across the 6 rounds of panel data collection
- Linking to all CVFS household, parent, and early childhood health data

Sex History Calendar (2/23/22)

- Baseline launch
 - In the past 24 months, in which months, if any, did you have sexual intercourse?
- Then repeated and linked across waves

In the past 24 months, in which months, if any, did you have sexual intercourse?

February 2022	July 2021	December 2020	May 2020
January 2022	June 2021	November 2020	April 2020
December 2021	May 2021	October 2020	March 2020
November 2021	April 2021	September 2020	All Months

गएको २४ महिनामा, तपाईंले कुनै महिनामा शारिरीक सम्पर्क/सेक्स गर्नुभएको थियो ?

माघ २०७८	असार २०७८	मंसिर २०७७	बैशाख २०७७
पौष २०७८	जेष्ठ २०७८	कार्तिक २०७७	चैत्र २०७६
मंसिर २०७८	बैशाख २०७८	असोज २०७७	फागुन २०७६
कार्तिक २०७८	चैत्र २०७७	भदौ २०७७	सबै महिनाहरु

In the past 24 months, in which months, if any, did you have sexual intercourse?

February 2022	July 2021	December 2020	May 2020
January 2022 ✓	June 2021	November 2020	April 2020 ✓
December 2021 ✓	May 2021	October 2020	March 2020 ✓
November 2021	April 2021	September 2020	All Months

Contraceptive History Calendar

- There are a variety of methods that some people use to prevent pregnancy or to prevent sexually transmitted disease. For each method shown, please indicate if you or a partner has ever used it for any reason, even if only once.

- Birth control pills
- Condom
- Vasectomy
- Female sterilization operation
- Traditional method
- Depo-Provera[®] or injectable
- Safe period
- Emergency contraception
- Hormonal implants / Norplant[™]
- Female condom vaginal pouch
- IUD, coil, loop
- Other methods: Please specify
- Never used a contraceptive method

Contraceptive History Calendar

- In which months, if any, were you or your partner using (METHOD)?
- Then repeated and linked across waves

In which months, if any, were you or your partner using birth control pills?

Green shading indicates months you mentioned having sexual intercourse. You are not limited to choosing only those months when answering this question.

February 2022	July 2021	December 2020	May 2020
January 2022	June 2021	November 2020	April 2020
December 2021	May 2021	October 2020	March 2020
November 2021	April 2021	September 2020	All Months

In which months, if any, were you or your partner using birth control pills?

Green shading indicates months you mentioned having sexual intercourse. You are not limited to choosing only those months when answering this question.

February 2022 ✓	July 2021	December 2020	May 2020 ✓
January 2022 ✓	June 2021	November 2020	April 2020 ✓
December 2021 ✓	May 2021	October 2020	March 2020 ✓
November 2021	April 2021	September 2020	All Months

3. Contraceptive History Calendar

- In which months, if any, were you or your partner pregnant?
- Then repeated and linked across waves

In which months, if any, were you or your partner pregnant?

Green shading indicates months you mentioned having sexual intercourse. You are not limited to choosing only those months when answering this question.

February 2022	July 2021	December 2020	May 2020
January 2022	June 2021	November 2020	April 2020
December 2021	May 2021	October 2020	March 2020
November 2021	April 2021	September 2020	All Months

CVFS Young Adult Longitudinal Study

A Lot of People Worked Together to Make
this Happen!

The Project Team

- William Axinn (U-M),
- Kate Scott (University of Otago, New Zealand),
- Ronny Bruffaerts (KU Lueven, Belgium)
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Funding: National Institute of Child Health and Human Development,
Population Dynamics Branch (R01 HD099135)

U-M Survey Operations Team

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- Sarah Broumand
- Hueichun Peng
- Karl Dinkelmann
- Jennie Williams
- Cheng Zhou
- Peter Sparks

ISER-N Field Work Team



References

Learn more about our sex and contraceptive history calendar tool:

West, Brady T., William G. Axinn, Mick P. Couper, Heather Gatny, and Heather Schroeder. 2022. “A Web-Based Event History Calendar Approach for Measuring Contraceptive Use Behavior.” Field Methods. doi: [10.1177/1525822X211069637](https://doi.org/10.1177/1525822X211069637).

Learn more about multimode for web surveys:

Axinn, William G., James Wagner, Mick Couper, and Scott Crawford. 2021. “Applying Responsive Survey Design to Small-Scale Surveys: Campus Surveys of Sexual Misconduct.” Sociological Methods & Research. doi: [10.1177/004912412111031270](https://doi.org/10.1177/004912412111031270).

References

Learn more about mode switching in longitudinal studies with frequent interviews:

Axinn, William G., Heather H. Gatny, and James Wagner. 2015. “Maximizing Data Quality using Mode Switching in Mixed-Device Survey Design: Nonresponse Bias and Models of Demographic Behavior.” Methods, Data, Analyses 9(2):163-184. doi: [10.12758/mda.2015.010](https://doi.org/10.12758/mda.2015.010).

Wagner, James, Mick P. Couper, William G. Axinn, and Heather Gatny. 2019. “The Utility of a Follow-Up Interview for Respondents to a Longitudinal Survey with Frequent Measurement.” Social Science Research 82:113-125. doi: [10.1016/j.ssresearch.2019.04.005](https://doi.org/10.1016/j.ssresearch.2019.04.005).

Data Archiving

- Final questionnaires used in the field are available now
 - Request at <https://cvfs.isr.umich.edu/about/contact-us/>
- Data will be available through the Inter-university Consortium for Political and Social Research (Study ID: ICPSR 4538)
 - Apply now for ICPSR restricted data user agreement and you'll be notified by ICPSR as soon as the data are available
 - Data can then be added to your existing data user agreement for immediate access

Questions?

