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Wave 1 Descriptives & Planned Analyses

Brief Initial Findings from the Meta & Youth Social Emotional Trends study

Social Impact Research

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Exhibit

63

MOP - 11/7/25

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4/5 Preso

- Audience
- Framing
- Goals
- Time

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Discussion Question

- Are there analyses you would like us to prioritize, beyond those that directly support product team workstreams, that you don't see [outlined](#) in this deck?
 - Examples:
 - Deep dive on teen/parent perceptions of social media/specific apps
 - Deep dive on social well-being
 - Deep dive on positive app value

Tl;dr

- We analyzed data from the first wave of the [Meta & Youth Social Emotional Trends](#) study.
- This deck presents a descriptive overview of our sample of 1,200 U.S. teens and their parents/guardians.
- We also present a timeline for planned analyses in H1 2024.

Key Descriptive Findings	
Demographics	Teens in this sample are slightly older than IG US teen MAP.
Behavioral Characteristics	Teens in this sample are more tenured and active than IG US teen MAP.
Emotional Well-being	Across multiple measures, most teens in this sample reported high EWB; a substantial minority (20-30%, depending on the measure) report lower EWB.
Body Image	Teens in this sample reported most frequent appearance comparison on TikTok and IG; almost one-third of teens reported high general body appreciation.
Problematic Use	Teens' average scores across scales assessing sense of control (attentiveness and capability) indicate they report lower control, on average, over various aspects of their use of IG and TikTok compared to other apps.
Positive Value	Most teens in this sample reported using IG at least some times for either creative expression, inspiration, advocacy, or idea exploration.

Slide 5

- 1 Unless we're fully measuring problematic use (rather than sense of control), let's be more specific and say either "sense of control" or "time management"

Chad Kiewiet [REDACTED], 3/15/2024

Background

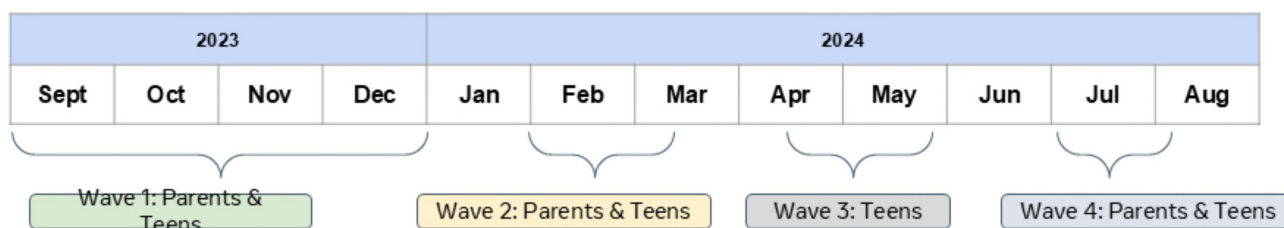


- Meeting and exceeding youth-related regulatory protections, which include key aspects of safety and well-being, is a [priority](#) for Meta, and the subject of significant external interest and concern ([x](#), [x](#), [x](#)).
- External literature provides guidance about potential topical areas to focus on, but has significant limitations, including reliance on self-reports of social media use ([x](#)).
- Making decisions about how to continue to improve Meta services to support teen well-being requires rigorous research that explores teens' experiences on Meta services over time ([x](#), [x](#)).

Method



- Between September and December 2023, a cohort of ~1,200 U.S. teen IG and/or FB users and their parents completed the first wave of a 4-wave longitudinal study that will follow the cohort over ~10 months ([participant flow diagram](#)).
- At each wave, teens and parents complete comprehensive online [surveys](#) that assess their social and emotional well-being.
- Teens and parents were recruited, and the surveys administered, by an external partner, NORC.
- Teens who completed the survey also linked to at least one of their Facebook and/or Instagram accounts, allowing collection of their [server log data](#) across multiple domains for the 28 days prior to survey completion.



Teens in this sample were slightly older than IG US teen MAP

- The study sample was compared to the population of US teens (predicted age) who were monthly active users (MAP) on 12/22/23 along common characteristics, and weights generated in Gravitron.
- Descriptive statistics are calculated based on unweighted data.
- Inferential statistics use weighted data.

	Teen Sample*	IG US Teen MAP
Gender	52.2% Female 41.7% Male 6.1% Other (e.g., transgender)	52% Female 48% Male
Age**	55.7% 13-15 44.3% 16-17	49% 13-15 51% 16-17
Parent Educ. Attainment <i>Parent report</i>	33% High School or less 40% Some College/Vocational/AA 27% Graduate/Prof. Degree	
Annual Household Income <i>Parent report</i>	27% <\$60K 36% \$60K - 125K 37% >\$125K	
State Representation	39 states; highest in CA., FL, & TX	
Race	11.9% >1 Race 73.4% White 9.6% Black 16.0% Latina/o 1.9% Asian-American	
Sexual Orientation	74.7% Straight 25.3% Gay/Lesbian/Bisexual/Other	
ACES <i>Adverse Childhood Events Scale</i>	Mean= 3.8 () 74% >1 ACE	

*n ranges from 1000-1077, depending on rate of non-response for a particular question. Future analyses will use data from final participant cohort (n~1200)

**Denotes this variable was statistically significantly different (p<0.05) between teens in this sample and IG US teen MAP

Slide 8

1

Do we know how this compares for FB?

Ashley [REDACTED], 2/14/2024

3

Because almost all teen in this sample have IG accounts (and some also have FB or only FB), we are focused on IG MAP here. Once the participants list is truly final (last stage underway right now to do a final validation pass for all participants, including those who linked accounts through end-Jan), we'll do a comparison with FB MAP then.

Anya Drabkin, 2/14/2024

2

can you provide a footnote explaining how to think about this?

Chad Kiewiet [REDACTED], 2/16/2024

3

what are we weighting on, and why are we weighting? would like to understand goals here. Is weighting necessary?

Chad Kiewiet [REDACTED], 2/16/2024

1

Add means (SD)

Anya Drabkin, 2/22/2024

4

this doesn't match the statistics in the table - if i'm reading this right, we have more 13-15s in the study than in MA

Chad Kiewiet [REDACTED], 2/22/2024

2

yeah - I will add in mean age for both. our sample is slightly older, because we have fewer 13 year olds. will make this clear

Anya Drabkin, 2/22/2024

5

where are just college grads? very high if this is all graduate degrees

Chad Kiewiet [REDACTED], 2/28/2024

Teens in this sample were slightly more active and tenured than IG US teen MAP

- The study sample was compared to the population of US teens (predicted age) who were monthly active users (MAP) on 12/22/23 along common characteristics, and weights generated in Graviton.
- Descriptive statistics are calculated based on unweighted data.
- Inferential statistics use weighted data.

	Teen Sample*	IG US Teen MAP
Account Tenure** <i>In days</i>	Mean= 1016.9 (SD= 734)	Mean= 811.3 (SD= 695.7)
Active Days** <i>in past 28</i>	Mean= 19.7 (SD= 10.4)	Mean= 18.3 (SD= 10.5)
Mobile Active Days** <i>In past 28 days</i>	Mean= 19.5 (SD= 10.5)	Mean= 18.2 (SD= 10.6)
#Followers**	Mean= 186.3 (SD= 495.5)	Mean= 266.0 (SD= 1302.7)
#Following	Mean= 301.3 (SD= 646.7)	Mean= 307.4 (SD= 641.0)
VPVs per day <i>In past 28 days</i>	Mean= 419.9 (SD= 465.9)	Mean= 350.9 (SD= 542.5)

*n=1077. Future analyses will use data from final participant cohort (n~1200)

**Denotes this variable was statistically significantly different ($p < 0.05$) between teens in this sample and IG US teen MAP

Slide 9

6

let's specify the inputs for weighting and how we should characterize the weighted sample

Chad Kiewiet [REDACTED], 2/28/2024

Scores on multiple measures of emotional well-being suggest most teens in this sample may not have been experiencing emotional challenges; scores suggest a substantial minority may have been

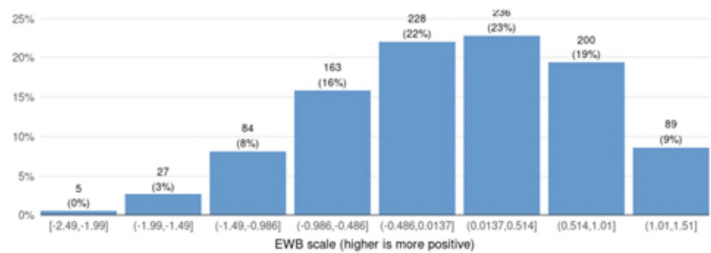
- 38% of teens in this sample reported feelings of sadness/hopelessness that interfered with usual activities for at least 2 weeks in a row in the past 12 months.
- 45% of parents reported someone in their family had experienced consistent challenges with emotions, concentration or behavior.
- Overall, early teens and boys reported significantly higher EWB than late teens and girls.

*EWB (Emotional Well-Being): A composite scale comprising validated external scales indicating both positive and negative aspects of emotional well-being: PHQ8, GAD7, PSS, UCLA3, WHO5, and LIFESAT (std alpha=0.9). Higher values indicate higher emotional well-being.

Percentage of teens in this sample reporting whether or not they experienced persistent feelings of sadness/hopelessness in the past 12 months (n=887 teens).



Distribution of teen EWB scale score; higher scores are indicative of higher emotional well-being overall (more positive, less negative).



Slide 10

7

are there external benchmarks on these scores? what do population distributions look like?

Chad Kiewiet [REDACTED], 2/16/2024

Teens in this sample reported most frequent appearance comparison on TikTok and IG; almost one-third of teens reported high general body appreciation

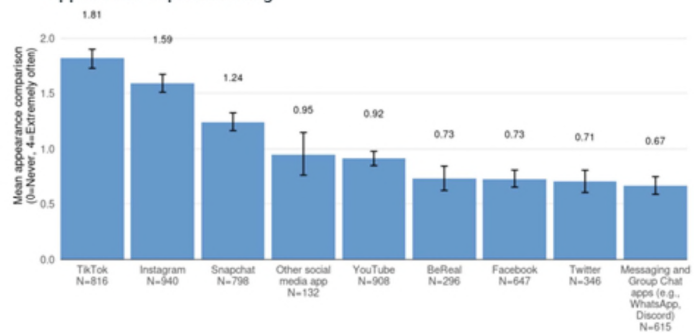
- Appearance comparison (AC*) scale scores varied significantly across social media apps (highest on TikTok and IG; lowest on BeReal, FB, Twitter, and Messaging Apps like WA).
- Almost one-third (29%) of the teens in this sample had a body appreciation scale (BAS*) score indicating high general satisfaction/appreciation with one's body; 10% had a BAS score indicating low general satisfaction/appreciation with one's body.

*AC: Composite scale across two items ($\alpha=0.88$): How often they "compare their appearance to the appearance of other people on [app]" and how often they "felt worse about their appearance after viewing posts on [app]". Response options ranged from Never (0) to Extremely Often (4).

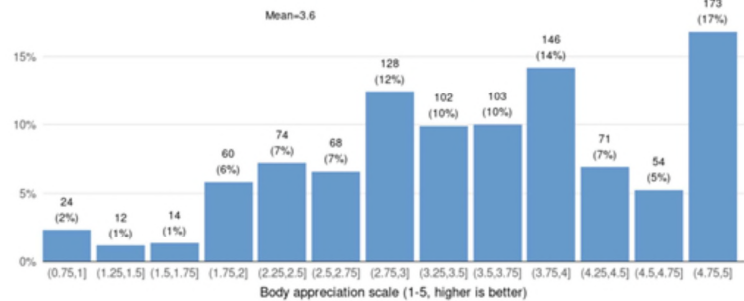
**BAS scores averaged across 3 items that asked how often teens reported "respect for", "love for", and appreciation for "different and unique characteristics of their body". Response options ranged from Never (1) to Extremely Often (5).

All results represent associations based on correlational data and are non-causal.

Mean appearance comparison scale scores across social media apps teens' reported using



Distribution of teens' body appreciation scale scores (n=1071)



Slide 11

8 does this account for frequency of use?

Chad Kiewiet [REDACTED], 2/16/2024

9 I think it would be informative to look at the distributions of these scales

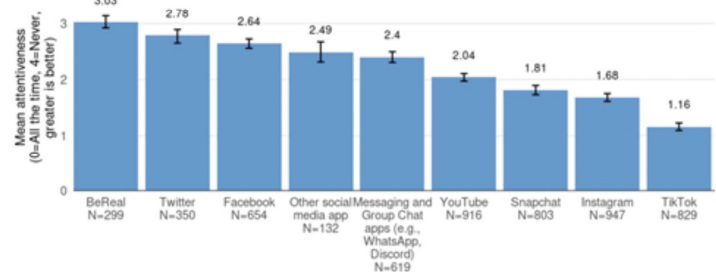
Chad Kiewiet [REDACTED], 2/16/2024

Teen average scores on subscales assessing their sense of control over use varied by app and were generally lower for IG and TikTok

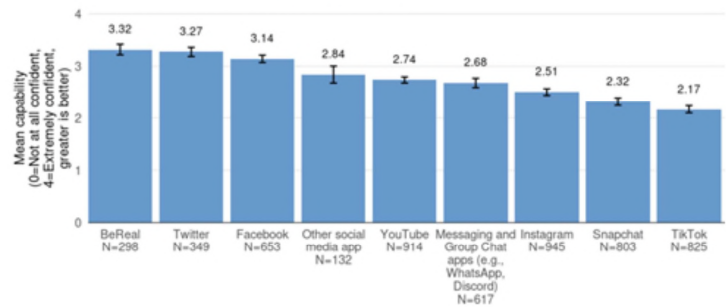
- Teen average attentiveness scale* scores varied significantly by app; average scores for IG and TikTok indicate teens perceive they, on average, frequently "spend more time" than desired, "check [these apps] out of habit", and "get caught up viewing content" on these apps.
- Teen average capability scale* scores varied significantly by app (though showed a tighter range than attentiveness scale scores by app); average scores for IG, Snapchat, and TikTok indicate teens perceive they, on average, feel somewhat to very confident in their ability to "control the amount of time they spend", "reduce how often they check", and "stop interacting with others" if desired on these apps.
- 22% of teens in this sample reported that their use of IG "often" or "all the time" takes priority over other areas of their life (e.g., work, school, relationships).

*Attentiveness and capability scale scores are computed by averaging across groups of 3 items each; items assess teens' perceived control over various aspects of their use of specific social media apps. Response options for attentiveness items range from All the time (0) to Never (4); and for

Teen mean attentiveness scale scores across apps



Teen mean capability scale scores across apps



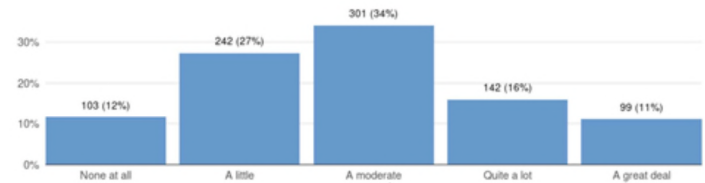
Slide 12

- 4 yes - asked for each respondent for each app they reported using
Anya Drabkin, 2/16/2024
- 10 did we ask about other apps?
Chad Kiewiet [REDACTED], 2/28/2024
- 11 how does IG compare to these other apps on this question?
Chad Kiewiet [REDACTED], 2/28/2024

Most US teens in this sample* reported that IG helps them express themselves creatively, explore new ideas, or see things that inspire them

- A majority of US teens in this sample report that IG helps them “creatively express” themselves “a moderate amount” (38%), “a lot” (18%), or a “great deal” (7%).
- A majority of US teens in this sample report that IG helps them “explore new ideas” “a moderate amount” (36%), “a lot” (12%), or a “great deal” (5%).
- A majority of US teens in this sample report that they see things on IG that “inspire them” “sometimes” (43%), “often” (30%), or a “very often” (9%).
- 42% of US teens in this sample report that they use IG “to advocate for issues that are important” to them “sometimes” (27%), “often” (10%), or “extremely often” (5%).

Percentage of teens reporting that how much value they get from using IG (n=951 teens)

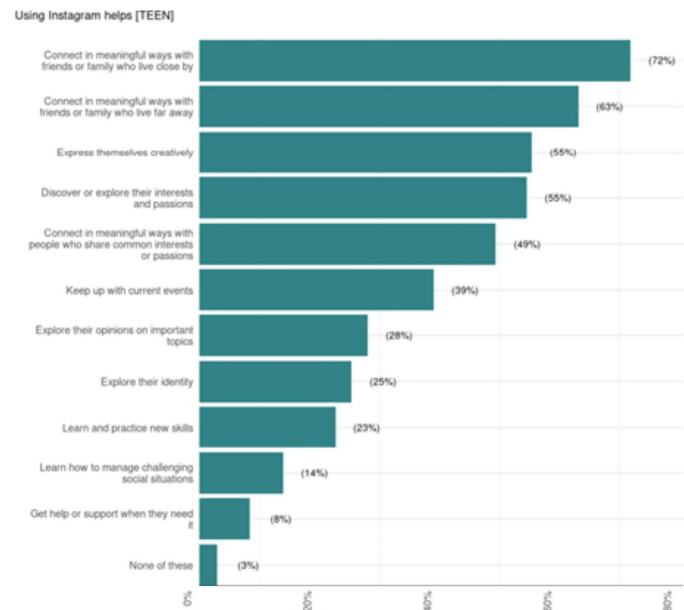


*n=935-951, depending on question. Future analyses will use data from final participant cohort (n~1200)

Parents of US teens in this sample reported a variety of ways they think social media and IG play a role in their teen's life

- Between 23%-72% of parents reported that they think IG helps their teen accomplish 9 valuable/meaningful tasks.
- "Being exposed to explicit content" (48%) and "being distracted from completing homework" (48%) were the concerns about teen social media use that more parents reported feeling "very" or "extremely" worried about.
- 61% of parents reported they "somewhat", "very much" or "extremely" think that IG plays a positive role in their teen's life.

Percentage of parents reporting that using IG helps their teen to accomplish positive tasks (n=780 parents)



Slide 14

- 12 can we pull out another slide on concerns?
Chad Kiewiet [REDACTED], 2/28/2024

Qualitative content review suggests there may be individual differences in the amount and type of sensitive topics different teens see; Mature Themes and Harm & Cruelty topics may be an efficient target for prioritization

- ~Half (50%) of the content disproportionately seen by US teen girls in this sample with lower emotional well-being (EWB) fell into a topic teens/parents think is potentially sensitive (most common topics: Mature Themes, Suffering, & Harm & Cruelty).
- Because external literature, professional advisories, and experts we have consulted ([x](#), [y](#), [z](#)) suggest teens with lower EWB may be particularly susceptible to potentially sensitive content (especially content focused on mental health struggles), these topics represent potential areas for prioritization for product or policy work. The Suffering topic (Mental Health Challenges subtopic) may be an important target for product/policy work, given it was the only topic disproportionately seen more by girls with low EWB.
- Prioritizing **Mature Themes** (esp. non-violating, sexually suggestive content) and **Harm & Cruelty** (esp. toxic narratives) may be a way to address the potentially sensitive content that may be disproportionately seen more by both US teen boys in general AND more susceptible US teen girls.

Number and proportion of disproportionately viewed content that was coded as potentially sensitive, and most common topics, by gender and EWB level [\[details here\]](#); n=150 pieces of content reviewed per subgroup/cell below*

	Girls	Boys
Irrespective of EWB	(36) 24% <i>Mature Themes (6%) Emphasis on Appearance (16%)</i>	(54) 36% <i>Mature Themes (16%) Risky Behavior (10%) Harm & Cruelty (10%)</i>
Higher EWB <i>Compared to lower EWB</i>	(28) 19% <i>Harm & Cruelty (6%)</i>	(52) 35% <i>Mature Themes (18%) Harm & Cruelty (10%)</i>
Lower EWB <i>Compared to higher EWB</i>	(75) 50% <i>Mature Themes (30%) Suffering (13%) Harm & Cruelty (10%)</i>	(22) 15% <i>Harm & Cruelty (7%)</i>

*Method: Manual review, systematic coding, and descriptive analysis of ~900 pieces of content disproportionately viewed by subgroups of teens in the sample, according to EWB level and gender (n=150 pieces of content reviewed for each subgroup). See definition of [disproportionate](#). Method accounts for content popularity (filtering out both most and least viewed content), for different numbers of teens who reported lower and higher EWB, and for the fact that teen girls were significantly more likely to report lower EWB than boys (24% of teen girls vs. 10% of teen boys reported lower EWB). See distribution of EWB

Slide 15

- 13** I'm having a hard time understanding this slide
Chad Kiewiet [REDACTED], 2/16/2024
- 14** is this looking at pieces of content that were by multiple study participants?
Chad Kiewiet [REDACTED], 2/28/2024

Quantitative review did not detect negative associations between proxies for age-sensitive content and emotional well-being

All results are based on correlational data and are non-causal and directional.

- Proxies are available for some candidate age-sensitive topics, with strong limitations: i/ goodness of proxy is not known; ii/ proxies marked with * were only available for dates temporally after MYST survey; iii/ result marked ** uses slightly differing methods (see 'methods').
- No statistically significant negative associations were detected between these proxies and self-reported EWB (unexpectedly, some of the associations were positive but for males only).
- These results do not suggest a specific topic to prioritize, but could have a number of causes (failure to detect an effect could be due to low sample size, use of proxies, data retention limitations [for predictors marked *], or no ground truth effect)

Methods: Results are based on linear regression of a composite of 7 emotional well-being (EWB) scales against content seen on Instagram by wave 1 survey respondents in either the 28d before taking the survey (for FIT predictors), or, due to data retention limitations, a 13d time period after taking the survey (for integrity predictors *); this implies lower confidence in results based on integrity predictors. Results include covariates for age, gender, total VPIs, and (for integrity predictors), 128 active days and follower count. Males only* results are based on fitting these same models to male vs. female respondents separately. Appearance-focused content results (**) are based on analysis of the same dataset by a different researcher; these results use the same outcome variable but differ slightly in i/ variable transformations and ii/ selection of covariates. Details [here](#).

Type of Content	Proxies (IG Only)	Association With EWB
<u>Mature Themes:</u> Explicit language	NA	NA (not tested)
<u>Mature Themes, Implied Harm & Cruelty:</u> Sexual relationships, sexualized bodies, sexual objectification	SSPX; ANSA (p60-p80) *	Positive for ANSA, males only. Others: no association detected.
<u>Mature Themes:</u> Political, controversial topics	FIT Politics; Social Issues; Health; Crime & Tragedy	No association detected
<u>Risky Behaviors:</u> Substance use	FIT Alcohol; FIT Gambling; RGS (p60-p80) *	
<u>Risky Behaviors:</u> Petty criminal behavior	FIT Crime & Tragedy	
<u>Emphasis on Appearance:</u> Body ideals, appearance- focused content	FIT subtopics associated with AC	No association detected **
<u>Suffering:</u> Death/suffering of people and animals; depictions of bodily harm	GV (p60-p80) *	Positive (males only)
<u>Suffering:</u> Grief	FIT Crime & Tragedy	No association detected
<u>Implied Harm & Cruelty:</u> Gratuitous violence, cruelty to people/animals	GV (p60-p80) *	Positive (males only)
<u>Implied Harm & Cruelty:</u> Toxic narratives (hate, misogyny, bias), interpersonal abuse	HS (p60-p80) *	No association detected

US teens in this sample who saw a greater % of appearance-related FIT subtopics reported more appearance comparison (AC)

- Prior research identified a [list of FIT subtopics](#), that when viewed in greater proportions, were [associated](#) with worse survey measures of appearance comparison. We manually reviewed content and narrowed the list in H2 '23. Topics include "Lip Makeup (product)" and "Fashion Photography."
- Viewing a greater proportion of these FIT subtopics was associated with more frequent and more negative appearance comparisons on IG, **even after controlling for teens' general body satisfaction, age, and gender identity**.
- These findings extend prior AC work by:
 1. Validating FIT topic refinement analyses conducted in H2'23, suggesting they are reasonable to use for AAC (YWB) and AC (IGMWB) workstreams.
 2. Indicating that there is an independent relationship between teens' FIT topic exposure on IG and teen AC that is not likely explainable by teens' other relevant characteristics (e.g., how satisfied they are with their bodies in life more generally). This suggests that changing FIT topic exposure may be a way to reduce AC ([experiment brief](#)).

Slide 17

- 15** I know we are pointing to "associations" but I think we consider reframing this slide (and some of the other ones) around descriptive questions. e.g., Among teens who reported higher levels of appearance comparison, what FIT subtopics did they see disproportionately?
Chad Kiewiet [REDACTED], 2/16/2024
- 16** Secondly, to avoid misinterpretation of what we can say with this data, we need to be clear that we can't say anything about direction of causality, i.e., whether this relationship is due to exposure or due to self selection
Chad Kiewiet [REDACTED], 2/16/2024

Q1* Planned & In-flight Analyses

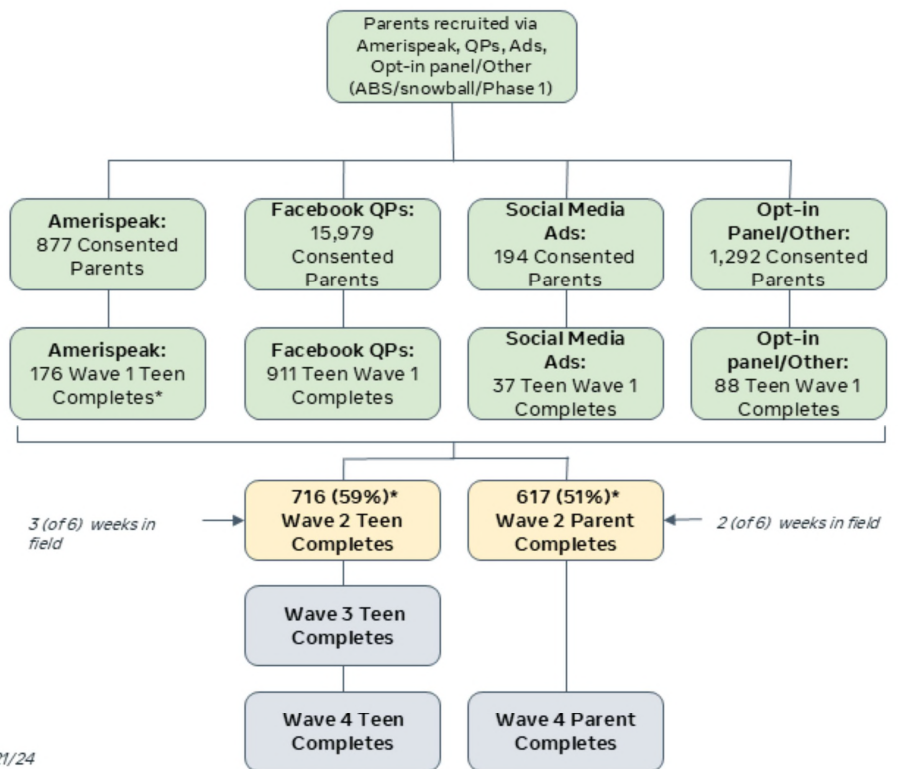
- For full analytic details, see [here](#).
- We have prioritized analyses that support in-flight product workstreams.

Other priority analyses for Q2 include: Association between use of digital caregiving tools & EWB/PU (■■■■ - 3/15); Association between FIT topics, other on-platform experiences, and EWB (Burke/Drabkin - 6/15); Longitudinal association between time spent, FIT/Integrity topics, PU & EWB (Burke, ■■■■ | Drabkin - 6/15)

Area	Focus (POC) <i>All analyses/write-ups vetted by core team</i>	Workstream or Team	ETA & Status
Sensitive Content	Association between sensitive content signals & EWB (Thorstad)	Age-Sensitive Content	2/15 Draft Results
	Qualitative review of content disproportionately seen by teens with low EWB (Drabkin)		2/15 Draft Results
Appearance Comparison (AC)	Association between AC-related FIT subtopics & AC (Burke)	AC (IGMWB)	2/16 Draft Results
	Association between other AC-related activities (viewing celebrities, unconnected content) (Burke)		4/1 In progress
Problematic Use (PU)	Association between PU/EWB (■■■■)	YWB / YRR	3/8 In progress
	Association between PU heuristics / other experiences (e.g., late night use, school day notifications) and PU (■■■■)		3/15 In progress
	Qualitative (Drabkin) and quantitative (■■■■) review of content disproportionately seen by teens with high/low PU.		3/15 Not started
	Association between parent-teen PU survey measures (Burke)		4/1 In progress

APPENDIX

Participant flow through the study (as of in-progress Wave 2)



*Wave 2 teen and parent completes reflects data as of 2/21/24

Teen & Parent Data

	Teens [wave 1 survey]	Parents [wave 1 survey]
Off-platform, self-administered, online survey	• Social support • Emotional well-being: signals indicating need for follow-up re: depression, anxiety, stress • Loneliness • Thriving • Sense of connectedness • Problematic social media use • Sleep quality • Body satisfaction/appreciation • Appearance comparison • Bullying & harassment on FB/IG • Positive app value (creative expression, inspiration, etc.) • Perceptions of physical health / disability status	• Concerns about teens (general) • Concerns about social media • Sense of control over social media use (PU) • Familiarity & satisfaction with digital caregiving tools (x-industry) • Digital caregiving style
FB/IG log data (so many things)	• Content classifiers: FIT Topics, Integrity • Heuristics & their components: RTs, PU • Time spent, sessions (amount + characteristics) • Commenting, posting, reacting	

Primary strengths: ability to pair log data with survey data that assesses teen emotional well-being; longitudinal nature (examine changes)

Primary limitations: US-only, sample size