**Suppl. 2\_E1. Rationale for Changes to Youth Fourth Follow-up Instrument**

| **Item Number** | **Description** | **Addition** | **Deletion** | **Edit** | **Rationale** | **Prior Approval Given by OMB** |
| --- | --- | --- | --- | --- | --- | --- |
| A1 | Age |  |  | X | Added a response option for 19 year olds, because some respondents will be 19 at this data collection. | The base item was approved by OMB in all prior packages including 11/17/15 |
| S2 | Age check (used to correct age discrepancies) |  |  | X | Added a response option for 19 year olds, because some respondents will be 19 at this data collection. | The base item was approved by OMB in all prior packages including 11/17/15 |
| B2 | Age of initiation |  |  | X | Added response options for initiation at 17, 18 and 19 years, to accommodate older youth. | The base item was approved by OMB in all prior packages including 11/17/15 |
| B7 | Do you smoke alone? | X |  |  | We would like to assess change over time from baseline to 4th FU. | This item was approved for the baseline instrument, on 10/21/13 |
| C2\_4 | Could say no to a cigarette if a family member offers it? | X |  |  | Added to assess the influence of family on self-efficacy | This is similar to items approved on 11/17/15 |
| C3\_4 | Could say no to smokeless tobacco if a family member offers it? | X |  |  | Added to assess the influence of family on self-efficacy | This is similar to items approved on 11/17/15 |
| C4\_4 | Could say no to an e-cigarette if a family member offers it? | X |  |  | Added to assess the influence of family on self-efficacy | This is similar to items approved on 11/17/15 |
| E3\_23 | Trouble breathing |  |  | X | Editing number of item only for clarification; No change in content. | This item was approved on 11/17/15 |
| E3\_24 | Stunt lung growth |  |  | X | Editing number of item only for clarification; No change in content. | This item was approved on 11/17/15 |
| E3\_25 | Stained teeth |  |  | X | Editing number of item only for clarification; No change in content. | This item was approved on 11/17/15 |
| E3\_26 | Develop gum disease | X |  |  | Adding to measure a belief which is the focus of the new ad “gift.” | This item has not been previously approved. |
| E17\_11 | Change my brain | X |  |  | Adding to measure a belief which is the focus of the new ad. | This item has not been previously approved. |
| E17\_11 | Be more likely to change my brain in the future | X |  |  | Adding to measure a belief which is the focus of the new ad. | This item has not been previously approved. |
| E5\_12 | Smoking as a teen can permanently stunt your lungs. | X |  |  | Adding to measure a belief which is the focus of the new ad “straw city.” | This item has not been previously approved. |
| E5\_13 | Smoking cigarettes will make me have serious breathing problems | X |  |  | Adding to measure a belief which is the focus of the new ad “straw city.” | This item has not been previously approved. |
| E5\_14 | If I smoke, the consequences will find me. | X |  |  | Adding to measure a belief which is the focus of the new ad “gift.” | This item has not been previously approved. |
| E5\_15 | Nicotine can reprogram your brain | X |  |  | Adding to measure a belief which is the focus of the new ad “hacked.” | This item has not been previously approved. |
| E5\_16 | If I smoke, it will be hard to think about anything but my next cigarette | X |  |  | Adding to measure a belief which is the focus of the new ad “hacked.” | This item has not been previously approved. |
| E5\_17 | The nicotine in cigarettes may hack your brain | X |  |  | Adding to measure a belief which is the focus of the new ad. | This item has not been previously approved. |
| E5\_18 | If I smoke, nicotine will reach my brain in just 10 seconds | X |  |  | Adding to measure a belief which is the focus of the new ad. | This item has not been previously approved. |
| E7\_13 | Gum disease | X |  |  | Adding to measure a belief which is the focus of the new ad “gift.” | This item has not been previously approved. |
| E15\_5 | Vaping may result in addition |  |  | X | Minor edit for clarity | Base item approved previously including 11/17/15 |
| E15\_9 | e-cigs can hack your brain | X |  |  | Adding to measure a belief which is the focus of the new ad “gift.” | This item has not been previously approved. |
| E9\_1 | Does cig smoke contain ammonia? |  | X |  | Not needed any longer. | NA |
| E9\_2 | Does cig smoke contain arsenic? |  | X |  | Not needed any longer. | NA |
| E9\_4 | Does cig smoke contain beryllium? |  | X |  | Not needed any longer. | NA |
| E9\_6 | Does cig smoke contain carbon dioxide? |  | X |  | Not needed any longer. | NA |
| E9\_8 | Does cig smoke contain hydrogen cyanide? |  | X |  | Not needed any longer. | NA |
| E9\_9 | Does cig smoke contain lead? |  | X |  | Not needed any longer. | NA |
| E9\_10 | Does cig smoke contain naphthelene? |  | X |  | Not needed any longer. | NA |
| E9\_11 | Does cig smoke contain nitopropane? |  | X |  | Not needed any longer. | NA |
| E9\_12 | Does cig smoke contain polonium 210? |  | X |  | Not needed any longer. | NA |
| E9\_13 | Does cig smoke contain uranium? |  | X |  | Not needed any longer. | NA |
| E9\_14 | Does cig smoke contain nitromethane? |  | X |  | Not needed any longer. | NA |
| E16\_1 | Does e-cig smoke contain nicotine? |  | X |  | Not needed any longer. | NA |
| E16\_2 | Does e-cig smoke contain formaldehyde? |  | X |  | Not needed any longer. | NA |
| E16\_3 | Does e-cig smoke contain acrolein? |  | X |  | Not needed any longer. | NA |
| E16\_4 | Does e-cig smoke contain metal particles? |  | X |  | Not needed any longer. | NA |
| E16\_5 | Does e-cig smoke contain diacetyl? |  | X |  | Not needed any longer. | NA |
| F2\_4 | Use computer for browsing |  |  | X | Minor edits to update popular products | Base item approved previously including 11/17/15 |
| F2\_5 | Use computer for chatting |  |  | X | Minor edits to update popular products | Base item approved previously including 11/17/15 |
| F2\_7 | Cell phone for video |  |  | X | Minor edits to update popular products | Base item approved previously including 11/17/15 |
| F2\_8 | Cell phone for social networking |  |  | X | Minor edits to update popular products | Base item approved previously including 11/17/15 |
| F2\_34 | Added Soundcloud |  |  | X | Minor edits to update popular products | Base item approved previously including 11/17/15 |
| F2\_38 | How frequently do you use Snapchat? | X |  |  | Added to update popular products | This item has not been previously approved. |
| F2\_39 | How frequently do you use Kik? | X |  |  | Added to update popular products | This item has not been previously approved. |
| F6 | Adding SoundCloud, Snapchat, and Kik |  |  | X | Minor edits to update popular products | Base item approved previously including 11/17/15 |
| F19\_x | Main message of the ad |  |  | X | Adding three new response options corresponding to the new advertising. Dropping three older response options so burden will remain the same. | The base item was approved by OMB in prior packages including 11/17/15 |
| F11\_13 | This ad is intense | X |  |  | Adding to assess whether this key term from the literature on stylistic elements of ads may be operationalized. | This item is similar to others that have been previously approved, including on 11/17/15. |
| G3 | Rules about smoking in your home | X |  |  | We would like to assess change over time from baseline to 4th FU. | This item was approved for the baseline instrument, on 10/21/13 |
| G10 | Attend church-religion |  |  |  | We would like to assess change over time from baseline to 4th FU. | This item was approved for the baseline instrument, on 10/21/13 |
| G21 | Parents talked with you about e-cig use? | X |  |  | Added to update popular products | This item has not been previously approved. |