

Survey questionnaire and topline

2016 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL

March 2-28, 2016

TOTAL N=4,726

WEB RESPONDENTS N=4,243

MAIL RESPONDENTS N=483¹⁹

ASK FORM 1 [N=2,410]:

SC1 Overall, would you say science has had a mostly positive effect on our society or a mostly negative effect on our society?

Mar 2-Mar 28

2016

67	Mostly positive
4	Mostly negative
27	Equal positive and negative effects
2	No answer

ASK IF "MOSTLY POSITIVE" (SC1=1) [N=1,835]:

SC1POS What are the main ways you think science has had a positive effect on society?

BASED ON (THOSE WHO SAID "MOSTLY POSITIVE") N=1,835

Mar 2-Mar 28

2016

59	Medicine/Health NET
19	Knowledge/Reasoning NET
15	Technology & Computerization NET
14	Environment and environmental awareness NET
14	Positive effect on life and society NET
7	Products and inventions NET
6	Food NET
5	Communication
5	Transportation/Infrastructure/Engineering NET
4	Space
1	Genes NET
1	Research (general)
1	Safety (general)
*	Confirming creationism/bible teachings
*	Military defense/strength
*	Entertainment
*	Commerce
*	Depends on the way it's used
*	Science over government
3	General positive
*	Mentions of negative effects (environment, warming)
*	Other/Indecipherable
11	Don't know/Not sure

¹⁹

Question wording in this topline is that from the web version of the survey. Question wording and format was adapted for the paper questionnaire delivered by mail; this questionnaire is available on request. All questions asked in both modes unless noted.

ASK IF "MOSTLY NEGATIVE" (SC1=2):

SC1POS What are the main ways you think science has had a negative effect on society?

**THOSE SAYING "MOSTLY NEGATIVE" N = 60
OPEN-END; RESPONSES NOT SHOWN DUE TO SMALL SAMPLE SIZE**

ASK FORM 2 :

TECH1 Overall, would you say technology has had a mostly positive effect on our society or a mostly negative effect on our society?

Mar 2-Mar 28

2016

N=2,316

52	Mostly positive
8	Mostly negative
38	Equal positive and negative effects
2	No answer

ASK IF "MOSTLY POSITIVE" (TECH1=1) [N=1,332]:

TECH1POS What are the main ways you think technology has had a positive effect on society?

BASED ON (THOSE WHO SAID "MOSTLY POSITIVE") N=1,332

Mar 2-Mar 28

2016

57	Information access and sharing, ease, speed, and convenience of information NET
21	Health/Medicine NET
11	Improvements in industry and work NET
10	Increased knowledge/curiosity/understanding NET
8	Access and speed of media NET
7	Makes life/tasks easier NET
7	Interconnectedness of the world/globalization NET
6	Science/scientific advancements NET
6	References to specific devices/Internet NET
5	Transportation and infrastructure NET
3	Improvements in goods NET
3	Safety NET
1	Understanding of government/increased accountability
1	Helping us progress by doing what we can't/extension of human limits
*	Learning what isn't taught in school, working to change these issues
3	General positive
*	Mentions of negative effects (misuse of information, safety issues, tasks) NET
2	Other/Indecipherable
11	Don't know/Not sure

ASK IF "MOSTLY NEGATIVE" (TECH1=2) [N=132]:

TECH1NEG What are the main ways you think technology has had a negative effect on society?

BASED ON (THOSE WHO SAID "MOSTLY NEGATIVE") N=132

Mar 2-Mar 28

2016

41	Loss of ability to communicate, interact NET
28	Degrades morals and values, promotes negativity NET
20	Inability to handle normal tasks because of dependence on devices NET
16	Misuse of information NET
14	References to specific devices/Internet NET
6	Safety issues (texting and driving)
3	Health problems
1	Pollution, environmental degradation
3	General negative
1	Mentions of positive effects (health/medicine)
3	Other/Indecipherable
7	Don't know/Not sure

OTHER QUESTIONS PREVIOUSLY RELEASED OR HELD FOR SEPARATE RELEASE.**ASK ALL:**FUTURE Do you think each of the following things will or will not happen in the next 50 years, that is before the year 2066? **[RANDOMIZE ITEMS]***a. There will be cures for most forms of cancer*

Mar 2-Mar 28

2016

14	Will definitely happen
52	Will probably happen
28	Will probably NOT happen
5	Will definitely NOT happen
1	No answer

b. Computer chips will be routinely embedded in our bodies

Mar 2-Mar 28

2016

11	Will definitely happen
43	Will probably happen
35	Will probably NOT happen
10	Will definitely NOT happen
1	No answer

c. We will routinely use implanted sensors to monitor and adjust all food and medications that enter our bloodstream

Mar 2-Mar 28

2016

8	Will definitely happen
40	Will probably happen
43	Will probably NOT happen
7	Will definitely NOT happen
1	No answer

FUTURE continued...

d. We will eliminate almost all birth defects by manipulating the genes of embryos before a baby is born

Mar 2-Mar 28

2016

7	Will definitely happen
40	Will probably happen
44	Will probably NOT happen
9	Will definitely NOT happen
1	No answer

e. People needing a replacement organ, such as a heart, lung or kidney, will routinely receive a transplant with an artificially-made organ

Mar 2-Mar 28

2016

18	Will definitely happen
64	Will probably happen
16	Will probably NOT happen
2	Will definitely NOT happen
1	No answer

OTHER QUESTIONS PREVIOUSLY RELEASED OR HELD FOR SEPARATE RELEASE.**RANDOMIZE ORDER OF THE THREE SECTIONS: VIGNETTE 1, 2 and 3**

Next, we will show you a short paragraph followed by a series of questions. This is for a separate research effort, unrelated to the earlier questions in this survey.

[RANDOMIZE VIGNETTE 1, 2, 3 ORDER]**ASK ALL:**

New developments in understanding the brain are creating the possibility that doctors will be able to surgically implant a small computer chip in the brain. Right now, these implanted devices are being developed for people with some kind of illness or disability. But in the future, these implanted devices could potentially be available for use by HEALTHY individuals, giving people a much improved ability to concentrate and process information in everyday life.

ASK ALL:

CHIP1 How much have you heard or read about this idea before today?

Mar 2-Mar 28

2016

6	A lot
32	A little
61	Not at all
2	No answer

ASK ALL:

CHIP2

In general, do you think an implanted device giving HEALTHY people a much improved ability to concentrate and process information is something that you, personally, would want or not something you would want?

Mar 2-Mar 28

2016

10	Yes, I would definitely want this
23	Yes, I would probably want this
32	No, I would probably NOT want this
33	No, I would definitely NOT want this
2	No answer

ASK ALL:

CHIP3

Would you say MOST PEOPLE would want or would not want this implanted device?

Mar 2-Mar 28

2016

36	Yes, most people would want this
61	No, most people would NOT want this
4	No answer

ASK ALL:

CHIP4

Thinking about the possibility of an implanted device giving HEALTHY people a much improved ability to concentrate and process information...

a. How ENTHUSIASTIC are you, if at all, about this possibility for society as a whole?

Mar 2-Mar 28

2016

9	Very enthusiastic
25	Somewhat enthusiastic
33	Not too enthusiastic
31	Not at all enthusiastic
2	No answer

b. How WORRIED are you, if at all, about this possibility for society as a whole?

Mar 2-Mar 28

2016

28	Very worried
41	Somewhat worried
21	Not too worried
8	Not at all worried
2	No answer

ASK ALL:

Thinking about the possibility of an implanted device giving HEALTHY people a much improved ability to concentrate and process information...

CHIP5 Which of these statements comes closer to your view, even if neither is exactly right?

Mar 2-Mar 28

2016

46	As humans, we are always trying to better ourselves and this idea is no different
51	This idea is meddling with nature and crosses a line we should not cross
3	No answer

ASK ALL:

CHIP6

If an implanted device becomes available, giving HEALTHY people a much improved ability to concentrate and process information, do you think the following are likely or not likely to happen as a result? [**RANDOMIZE ITEMS**]

	<u>Yes, likely</u>	<u>No, not likely</u>	<u>No answer</u>
a. People who have these implanted devices will be more productive at their jobs			
Mar 2-Mar 28, 2016	55	41	5
b. People who have these implanted devices will feel superior to people who do not			
Mar 2-Mar 28, 2016	71	26	4
c. This option will be used before we fully understand how it affects people's health			
Mar 2-Mar 28, 2016	74	23	3
d. People who have these implanted devices will feel more confident and better about themselves			
Mar 2-Mar 28, 2016	64	32	4
e. Inequality will increase because this option will be available only for the wealthy			
Mar 2-Mar 28, 2016	73	24	3
f. Widespread use of this option will lead to new innovation and problem-solving in society			
Mar 2-Mar 28, 2016	51	44	4

ASK ALL:

CHIP7 Do you think an implanted device giving HEALTHY people a much improved ability to concentrate and process information is ...

Mar 2-Mar 28

2016

23	Morally acceptable
37	Morally UNacceptable
38	Not sure
3	No answer

ASK IF THIS IS THE FIRST VIGNETTE SERIES FOR THE RESPONDENT:

CHIP7OE Can you explain a little about why you think [an implanted device giving HEALTHY people a much improved ability to concentrate and process information] is morally acceptable, morally unacceptable, or something you are not sure about?

Percent of cases among those saying this is morally acceptable, morally unacceptable, or not sure

[Coded from open end, verbatim responses]

	Among those saying "Morally acceptable" N=352 %	Among those saying "Unacceptable" N=626 %	Among those saying "Not sure" N=662 %
Positive effects of brain chip implants			
Humans are always improving and should be bettering ourselves NET	25	*	3
Should be free choice, up to individual NET	17	3	2
Similar to current enhancements NET	16	*	1
Positive effect on society, health and jobs NET	10	*	2
God gave us the means and brains to innovate	*	*	0
General positive comments	6	0	1
Concerns about brain chip implants			
References to the Bible; changing God's plan NET	1	21	6
Disrupting nature; a line we should not cross NET	0	19	7
Could be controlled/used for bad motives NET	4	17	8
Unnecessary; not needed for healthy people NET	1	13	7
Unfair advantage/would widen the gaps NET	4	10	6
Unintended consequences/side effects NET	1	6	5
Loss of individuality, humanity NET	2	7	3
Negative societal effect NET	5	3	1
Should focus efforts on other issues	0	*	1
Need consent, rules to regulate NET	*	*	*
General negative comments	0	3	2
Need more information, unsure			
Need more information/Conflicted NET	3	1	12
Not a moral issue, not morally unacceptable NET	10	2	6
Depends on conditions/consequences NET	3	1	3
Not a believer	2	0	0
Other/Indecipherable	5	2	4
Don't know/Not sure	20	19	39

ASK ALL:

CHIP8

Would an implanted device giving HEALTHY people a much improved ability to concentrate and process information be more acceptable, less acceptable, or would it make no difference in each of these circumstances?

a. If people could turn on and off the effects

Mar 2-Mar 28

2016

32	More acceptable
16	Less acceptable
49	No difference
3	No answer

b. If the effects were permanent and could not be reversed

Mar 2-Mar 28

2016

8	More acceptable
51	Less acceptable
38	No difference
3	No answer

ASK ALL:

CHIP9

Would you say each of the following is an appropriate use of technology or taking technology too far if the effects were such that those who had these implanted devices were...

a. Always able to concentrate and process information at a level EQUAL TO THEIR OWN PEAK ABILITIES before they had the implanted device

Mar 2-Mar 28

2016

47	An appropriate use of technology
50	Taking technology too far
3	No answer

b. Able to concentrate and process information at a level MUCH BETTER THAN THEIR OWN PEAK ABILITIES before they had the implanted device

Mar 2-Mar 28

2016

39	An appropriate use of technology
57	Taking technology too far
4	No answer

c. Able to concentrate and process information at a level FAR ABOVE THAT OF ANY HUMAN KNOWN-TO-DATE

Mar 2-Mar 28

2016

30	An appropriate use of technology
67	Taking technology too far
3	No answer

ASK ALL:

CHIP10

If these implanted devices become available, giving HEALTHY people a much improved ability to concentrate and process information, how much, if at all, do you think society as a whole would change?

Mar 2-Mar 28

2016

48	A great deal
31	Some
10	Not too much
8	Not at all
3	No answer

ASK ALL:

CHIP11

If these implanted devices become available giving HEALTHY people a much improved ability to concentrate and process information, do you think there would be ...

Mar 2-Mar 28

2016

25	More benefits for society than downsides
41	More downsides for society than benefits
31	About equal benefits and downsides for society
4	No answer

[RANDOMIZE VIGNETTE 1, 2, 3 ORDER]**ASK ALL:**

New developments are creating the possibility of using synthetic blood substitutes to increase the oxygen level in a person's blood stream, giving them increased speed, strength and stamina. Right now, this man-made substitute for blood is being developed for people with some kind of illness or medical condition. But in the future, a transfusion with this kind of synthetic blood substitute could be developed for use by HEALTHY individuals, giving people a much improved ability to complete all sorts of tasks with much greater speed, strength and stamina.

ASK ALL:

STR1

How much have you heard or read about this idea before today?

Mar 2-Mar 28

2016

3	A lot
19	A little
77	Not at all
1	No answer

ASK ALL:

STR2 In general, do you think using a synthetic blood substitute giving HEALTHY people much greater speed, strength and stamina is something that you, personally, would want or not something you would want?

Mar 2-Mar 28

2016

11	Yes, I would definitely want this
24	Yes, I would probably want this
35	No, I would probably NOT want this
28	No, I would definitely NOT want this
2	No answer

ASK ALL:

STR3 Would you say MOST PEOPLE would want or would not want this synthetic blood substitute?

Mar 2-Mar 28

2016

44	Yes, most people would want this
53	No, most people would NOT want this
3	No answer

ASK ALL:

STR4 Thinking about the possibility of this synthetic blood substitute giving HEALTHY people much greater speed, strength and stamina ...

a. How ENTHUSIASTIC are you, if at all, about this possibility for society as a whole?

Mar 2-Mar 28

2016

10	Very enthusiastic
27	Somewhat enthusiastic
34	Not too enthusiastic
27	Not at all enthusiastic
2	No answer

b. How WORRIED are you, if at all, about this possibility for society as a whole?

Mar 2-Mar 28

2016

20	Very worried
42	Somewhat worried
26	Not too worried
9	Not at all worried
2	No answer

ASK ALL:

Thinking about the possibility of this synthetic blood substitute giving HEALTHY people much greater speed, strength and stamina...

STR5 Which of these statements comes closer to your view, even if neither is exactly right?

Mar 2-Mar 28

2016

48	As humans, we are always trying to better ourselves and this idea is no different
49	This idea is meddling with nature and crosses a line we should not cross
3	No answer

ASK ALL:

STR6

If this synthetic blood substitute becomes available giving HEALTHY people much greater speed, strength and stamina, do you think the following are likely or not likely to happen as a result? **[RANDOMIZE ITEMS]**

	<u>Yes, likely</u>	<u>No, not likely</u>	<u>No answer</u>
a. People who have a transfusion with this synthetic blood substitute will be more productive at their jobs Mar 2-Mar 28, 2016	46	51	4
b. People who have a transfusion with this synthetic blood substitute will feel superior to people who do not Mar 2-Mar 28, 2016	63	34	3
c. This option will be used before we fully understand how it affects people's health Mar 2-Mar 28, 2016	73	24	3
d. People who have a transfusion with this synthetic blood substitute will feel more confident and better about themselves Mar 2-Mar 28, 2016	61	35	4
e. Inequality will increase because this option will be available only for the wealthy Mar 2-Mar 28, 2016	70	27	3
f. Widespread use of this option will lead to new innovation and problem solving in society Mar 2-Mar 28, 2016	39	58	3

ASK ALL:

STR7 Do you think having a transfusion with this synthetic blood substitute giving HEALTHY people much greater speed, strength and stamina is ...

Mar 2-Mar 28

2016

22	Morally acceptable
35	Morally UNacceptable
41	Not sure
2	No answer

ASK IF THIS IS THE FIRST VIGNETTE SERIES FOR THE RESPONDENT:

STR7OE Can you explain a little about why you think this is morally acceptable, morally unacceptable, or something you are not sure about?

Percent of cases among those saying this is morally acceptable, morally unacceptable, or not sure

[Coded from open end, verbatim responses]

	Among those saying "Morally acceptable" N=347 %	Among those saying "Unacceptable" N=433 %	Among those saying "Not sure" N=621 %
Positive effects of synthetic blood substitutes			
Humans are always improving and should be bettering ourselves NET	25	*	2
Similar to current enhancements NET	19	9	6
Positive effect on society, health and jobs NET	16	1	3
Should be free choice, up to individual NET	12	*	4
God gave us the means and brains to innovate	3	*	1
General positive comments	5	0	*
Concerns about synthetic blood substitutes			
Disrupting nature; a line we should not cross NET	*	25	7
References to the Bible; changing God's plan NET	3	20	6
Unnecessary; not needed for healthy people NET	3	17	7
Could be controlled/used for bad motives NET	1	10	5
Unfair advantage/would widen the gaps NET	8	10	9
Unintended consequences/side effects NET	3	9	8
Negative societal effect NET	5	6	5
Loss of individuality, humanity NET	1	2	*
Need consent, rules to regulate NET	1	*	2
Should focus efforts on other issues	0	1	*
General negative comments	0	2	1
Need more information, unsure			
Need more information/Conflicted NET	6	1	18
Depends on conditions/consequences NET	4	1	8
Not a moral issue, not morally unacceptable NET	15	2	5
Not a believer	*	0	0
Other/Indecipherable	1	1	1
Don't know/Not sure	11	18	33

ASK ALL:

STR8 Would using a synthetic blood substitute giving HEALTHY people much greater speed, strength and stamina be more acceptable, less acceptable, or would it make no difference in each of these circumstances?

a. If people could turn on and off the effects

Mar 2-Mar 28

2016

28	More acceptable
17	Less acceptable
53	No difference
3	No answer

b. If the effects were permanent and could not be reversed

Mar 2-Mar 28

2016

9	More acceptable
48	Less acceptable
40	No difference
3	No answer

ASK ALL:

STR9 Would you say each of the following is an appropriate use of technology or taking technology too far if the effects were such that those who had this synthetic blood substitute ...

a. Always had speed, strength and stamina at a level EQUAL TO THEIR OWN PEAK ABILITIES before they had a transfusion with this synthetic blood substitute

Mar 2-Mar 28

2016

47	An appropriate use of technology
50	Taking technology too far
3	No answer

b. Had speed, strength and stamina at a level MUCH BETTER THAN THEIR OWN PEAK ABILITIES before they had a transfusion with this synthetic blood substitute

Mar 2-Mar 28

2016

37	An appropriate use of technology
59	Taking technology too far
4	No answer

c. Had speed, strength and stamina at a level FAR ABOVE THAT OF ANY HUMAN KNOWN-TO-DATE

Mar 2-Mar 28

2016

28	An appropriate use of technology
69	Taking technology too far
4	No answer

ASK ALL:

STR10

If this synthetic blood substitute becomes available, giving HEALTHY people much greater speed, strength and stamina, how much, if at all, do you think society as a whole would change?

Mar 2-Mar 28

2016

38	A great deal
38	Some
14	Not too much
8	Not at all
3	No answer

ASK ALL:

STR11

If this synthetic blood substitute becomes available, giving HEALTHY people much greater speed, strength and stamina, do you think there would be ...

Mar 2-Mar 28

2016

22	More benefits for society than downsides
41	More downsides for society than benefits
34	About equal benefits and downsides for society
3	No answer

[RANDOMIZE VIGNETTE 1, 2, 3 ORDER]

New developments in genetics and gene-editing techniques are making it possible to treat some diseases and conditions by modifying a person's genes. In the future, gene-editing techniques could be used for any newborn, by changing the DNA of the embryo before it is born, and giving that baby a much reduced risk of serious diseases and conditions over his or her lifetime. Any changes to a baby's genetic make-up could be passed on to future generations if they later have children, and over the long term this could change the genetic characteristics of the population.

ASK ALL:

GEN1

How much have you heard or read about this idea before today?

Mar 2-Mar 28

2016

9	A lot
48	A little
42	Not at all
1	No answer

ASK ALL:

GEN2

If you had a baby, do you think this gene-editing -- giving a much reduced risk of serious diseases and conditions over his or her lifetime -- is something that you, personally, would want for your baby or not something you would want for your baby?

Mar 2-Mar 28

2016

16	Yes, I would definitely want this for my baby
32	Yes, I would probably want this for my baby
28	No, I would probably NOT want this for my baby
21	No, I would definitely NOT want this for my baby
2	No answer

ASK ALL:

GEN3

Would you say MOST PEOPLE would want or would not want this gene-editing for their baby?

Mar 2-Mar 28

2016

55	Yes, most people would want this for their baby
42	No, most people would NOT want this for their baby
3	No answer

ASK ALL:

GEN4

Thinking about the possibility of this gene-editing giving HEALTHY babies a much reduced risk of serious diseases and conditions...

a. How ENTHUSIASTIC are you, if at all, about this possibility for society as a whole?

Mar 2-Mar 28

2016

15	Very enthusiastic
34	Somewhat enthusiastic
30	Not too enthusiastic
19	Not at all enthusiastic
2	No answer

b. How WORRIED are you, if at all, about this possibility for society as a whole?

Mar 2-Mar 28

2016

22	Very worried
46	Somewhat worried
23	Not too worried
8	Not at all worried
2	No answer

ASK ALL:

Thinking about the possibility of this gene-editing giving HEALTHY babies a much reduced risk of serious diseases and conditions ...

GEN5 Which of these statements comes closer to your view, even if neither is exactly right?
[RANDOMIZE RESPONSE OPTIONS]

Mar 2-Mar 28
2016

51	As humans, we are always trying to better ourselves and this idea is no different.
46	This idea is meddling with nature and crosses a line we should not cross.
3	No answer

ASK ALL:

GEN6 If this gene-editing become available, giving HEALTHY babies a much reduced risk of serious diseases and conditions, do you think the following are likely or not likely to happen as a result? **[RANDOMIZE ITEMS]**

	<u>Yes, likely</u>	<u>No, not likely</u>	<u>No answer</u>
a. People who have this gene-editing will be more productive at their jobs Mar 2-Mar 28, 2016	32	64	4
b. People who have this gene-editing will feel superior to people who do not Mar 2-Mar 28, 2016	53	44	3
c. This option will be used before we fully understand how it affects people's health Mar 2-Mar 28, 2016	73	24	3
d. People who have this gene-editing will feel more confident and better about themselves Mar 2-Mar 28, 2016	52	44	4
e. Inequality will increase because this option will be available only for the wealthy Mar 2-Mar 28, 2016	70	27	3
f. Widespread use of this option will lead to new innovation and problem-solving in society Mar 2-Mar 28, 2016	45	51	3

ASK ALL:

GEN7 Do you think using this gene-editing giving HEALTHY babies a much reduced risk of serious diseases and conditions is ...

Mar 2-Mar 28

2016

28	Morally acceptable
30	Morally UNacceptable
40	Not sure
2	No answer

ASK IF THIS IS THE FIRST VIGNETTE SERIES FOR THE RESPONDENT:

GEN7OE Can you explain a little about why you think [using this gene editing giving HEALTHY babies a much reduce risk of serious diseases and conditions] is morally acceptable, morally unacceptable, or something you are not sure about?

Percent of cases among those saying this is morally acceptable, morally unacceptable, or not sure

[Coded from open end, verbatim responses]

	Among those saying "Morally acceptable" N=475	Among those saying "Unacceptable" N=430	Among those saying "Not sure" N=728
	%	%	%
Positive effects of gene editing			
Humans are always improving and should be bettering ourselves NET	32	1	2
Positive effect on society, health and jobs NET	21	1	4
Similar to current enhancements NET	8	4	2
God gave us the means and brains to innovate	5	0	1
Should be free choice, up to individual NET	4	*	1
General positive comments	3	0	*
Concerns about gene editing			
References to the Bible; changing God's plan NET	1	34	9
Disrupting nature; a line we should not cross NET	3	26	11
Could be controlled/used for bad motives NET	3	9	5
Unintended consequences/side effects NET	4	8	10
Unnecessary; not needed for healthy people NET	8	5	4
Unfair advantage/would widen the gaps NET	5	4	4
Negative societal effect NET	3	4	3
Loss of individuality, humanity NET	*	4	1
Need consent, rules to regulate NET	1	1	2
Should focus efforts on other issues	1	1	*
General negative comments	0	3	2
Need more information, unsure			
Need more information/Conflicted NET	5	2	14
Depends on conditions/consequences NET	4	2	7
Not a moral issue, not morally unacceptable NET	6	*	2
Not a believer	1	*	*
Other/Indecipherable	3	2	1
Don't know/Not sure	11	27	41

ASK ALL:

GEN8

Would this gene-editing giving HEALTHY babies a much reduced risk of serious diseases and conditions be more acceptable, less acceptable, or would it make no difference in each of these circumstances?

a. If people could choose which diseases and conditions are affected

Mar 2-Mar 28

2016

41	More acceptable
17	Less acceptable
39	No difference
3	No answer

b. If the effects were permanent and could not be reversed

Mar 2-Mar 28

2016

19	More acceptable
37	Less acceptable
41	No difference
3	No answer

c. If the effects were limited to that person and NOT passed on to future generations

Mar 2-Mar 28

2016

34	More acceptable
23	Less acceptable
40	No difference
3	No answer

d. If it changed the genetic make-up of the whole population for the foreseeable future

Mar 2-Mar 28

2016

17	More acceptable
49	Less acceptable
31	No difference
3	No answer

e. If it required testing on human embryos in order to develop these techniques

Mar 2-Mar 28

2016

11	More acceptable
54	Less acceptable
32	No difference
3	No answer

ASK ALL:

GEN9

Would you say this is an appropriate use of technology or taking technology too far if the effects were such that those who had this gene-editing were ...

a. Always EQUALLY HEALTHY as the average person today

Mar 2-Mar 28

2016

54	An appropriate use of technology
43	Taking technology too far
3	No answer

b. MUCH HEALTHIER than the average person today

Mar 2-Mar 28

2016

52	An appropriate use of technology
45	Taking technology too far
4	No answer

c. FAR HEALTHIER than any human known-to-date

Mar 2-Mar 28

2016

42	An appropriate use of technology
54	Taking technology too far
4	No answer

ASK ALL:

GEN10

If this gene-editing becomes available, giving HEALTHY babies a much reduced risk of serious diseases and conditions, how much, if at all, do you think society as a whole would change?

Mar 2-Mar 28

2016

46	A great deal
35	Some
10	Not too much
6	Not at all
2	No answer

ASK ALL:

GEN11

If this gene-editing becomes available giving HEALTHY babies a much reduced risk of serious diseases and conditions, do you think there would be ...

Mar 2-Mar 28

2016

36	More benefits for society than downsides
28	More downsides for society than benefits
33	About equal benefits and downsides for society
3	No answer

2016 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL**April 5–May 2, 2016****TOTAL N=4,685****WEB RESPONDENTS N=4,207****MAIL RESPONDENTS N=478²⁰****ASK ALL:**

HLTHRATE Would you say that in general your health is excellent, very good, good, fair, or poor?

Apr 5-May 2

2016

N=4,685

11	Excellent
32	Very good
37	Good
14	Fair
4	Poor
1	No answer

Jul 7-Aug 4

2014²¹

N=3,351

13
35
32
15
5
*

ASK ALL:

G1 Do you, or does anyone in your immediate family, have a gene that predisposes you to a serious disease such as Alzheimer's, cancer, heart disease, or sickle cell anemia?

Apr 5-May 2

2016

27	Yes
43	No
30	Not sure
1	No answer

ASK ALL:

G2 Have you, or has anyone in your immediate family, ever had a genetic test, or haven't you done this?

Apr 5-May 2

2016

10	Yes
70	No
19	Not sure
1	No answer

OTHER QUESTIONS PREVIOUSLY RELEASED OR HELD FOR SEPARATE RELEASE.

²⁰ Question wording in this topline is that from the web version of the survey. Question wording and format was adapted for the paper questionnaire delivered by mail; this questionnaire is available on request. All questions asked in both modes unless noted.

²¹ In Wave 5 (Jul 7-Aug 4, 2014), 1,494 panelists were surveyed by phone.

On another topic...**ASK ALL:**

COS1 Which, if any, of the following have you had done? *[Check all that apply]*

<u>Apr 5-May 2, 2016</u>	<u>Selected</u>	<u>Not selected /No answer</u>
a. Elective cosmetic surgery (such as breast changes, nose reshaping, eyelid surgery, liposuction, tummy tuck, facelift)	4	96
b. Lasik or laser-assisted eye surgery	9	91
c. Surgery to prevent you from having children in the future (such as tubal ligation or vasectomy)	15	85
d. Injections to fill out or smooth your skin or lips (such as collagen, Botox or hyaluronic acid)	2	98
e. Hair replacement surgery	1	99
f. Cosmetic dental procedures to improve your smile	11	89
g. None of these [EXCLUSIVE PUNCH]	66	34

ASK ALL:

COS2 Do you have any close friends or family members who have had any of the following?
[Check all that apply]

<u>Apr 5-May 2, 2016</u>	<u>Selected</u>	<u>Not selected /No answer</u>
a. Elective cosmetic surgery (such as breast changes, nose reshaping, eyelid surgery, liposuction, tummy tuck, facelift)	23	77
b. Lasik or laser-assisted eye surgery	32	68
c. Surgery to prevent you from having children in the future (such as tubal ligation or vasectomy)	33	67
d. Injections to fill out or smooth your skin or lips (such as collagen, Botox or hyaluronic acid)	10	90
e. Hair replacement surgery	3	97
f. Cosmetic dental procedures to improve your smile	23	77
g. None of these [EXCLUSIVE PUNCH]	40	60

ASK ALL:

COS3 Do you think more people getting each of the following these days is an appropriate use of technology or is it taking technology too far?

<u>Apr 5-May 2, 2016</u>	<u>An appropriate use of technology</u>	<u>Taking technology too far</u>	<u>No answer</u>
a. Elective cosmetic surgery	62	34	4
b. Lasik or laser-assisted eye surgery	89	8	3
c. Surgery to prevent you from having children in the future	76	20	4
d. Injections to fill out or smooth your skin or lips	53	43	4
e. Hair replacement surgery	76	19	5
f. Cosmetic dental procedures to improve your smile	86	11	4

ASK ALL:

COS4 Which of these statements comes closer to your own view, even if neither is exactly right?

Apr 5-May 2
2016

61	People are too quick to undergo cosmetic procedures in order to change their appearance in ways that are not really important
36	It's understandable that more people undergo cosmetic procedures these days because it's a competitive world and people who look more attractive tend to have an advantage
3	No answer

ASK ALL:

COS5 How often do you think elective cosmetic surgery makes people feel more confident and better about themselves?

Apr 5-May 2
2016

26	Almost always
56	Some of the time
11	Not too often
6	Almost never
2	No answer

ASK ALL:

COS6 How often do you think elective cosmetic surgery leads to unexpected health problems?

Apr 5-May 2

2016

8	Almost always
63	Some of the time
22	Not too often
5	Almost never
2	No answer

ASK ALL:

COS7 Thinking about elective cosmetic surgery, do you think there are generally...

Apr 5-May 2

2016

16	More benefits for society than downsides
26	More downsides for society than benefits
54	About equal benefits and downsides for society
3	No answer