

TITLE: Motivations, Perceptions and Impacts of Direct-to-Consumer Genetic Testing Among Users in Brazil

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Supplementary material

Original survey in portuguese

Perfil sociodemográfico

Os dados abaixo nos ajudarão a conhecer melhor você de maneira anônima

1. Idade

2. Sexo biológico

☐ Feminino

☐ Masculino

☐ Prefiro não informar

3. Como você identifica seu gênero?

☐ Feminino

☐ Masculino

☐ Outro

☐ Prefiro não informar

4. Em qual estado você mora?

☐ AC

☐ AL

☐ AM

☐ BA

☐ CE

☐ DF

☐ ES

☐ GO

☐ MA

☐ MG

☐ MS

☐ MT

☐ PA

☐ PB

☐ PE

☐ PI

☐ PR

☐ RJ

☐ RN

☐ RO

☐ RR

☐ RS

☐ SC

☐ SE

☐ SP

☐ TO

5. Qual o seu grau de escolaridade?

☐ Ensino fundamental incompleto

☐ Ensino fundamental completo

☐ Ensino médio incompleto

☐ Ensino médio completo

☐ Ensino superior incompleto

☐ Ensino superior completo

☐ Pós-graduação

6. Qual a sua área de atuação profissional?

- ☐ Serviços administrativos
- ☐ Comercial
- ☐ Saúde/Biológicas
- ☐ Ensino
- ☐ Construção civil
- ☐ Tecnologia da informação
- ☐ Jurídica
- ☐ Serviço público
- ☐ Ciências exatas
- ☐ Ciências sociais e humanas
- ☐ Artes e design
- ☐ Comunicação e informação
- ☐ Outra

7. Em qual dos intervalos abaixo melhor se enquadra sua renda familiar?

- ☐ Nenhuma renda
- ☐ Até 1 salário mínimo (R\$ 1.302,00)
- ☐ Até 2 salários mínimos (R\$ 2.604,00)
- ☐ De 2 a 4 salários mínimos (R\$ 2.604,00 a R\$ 5.208,00)
- ☐ De 4 a 10 salários mínimos (R\$ 5.208,00 a R\$ 13.020,00)
- ☐ De 10 a 20 salários mínimos (R\$ 13.020,00 a R\$ 26.040,00)
- ☐ 20 salários mínimos ou mais (R\$ 26.040,00 ou mais)
- ☐ Prefiro não informar

8. Como você se autodeclara com relação à sua cor/etnia?

- ☐ Amarela
- ☐ Branca
- ☐ Indígena
- ☐ Parda
- ☐ Preta
- ☐ Prefiro não declarar

Perfil de saúde

Nessa etapa do questionário, queremos saber qual a sua opinião sobre a sua saúde e quais os principais hábitos que você possui para se dedicar a ela.

9. Em geral, você considera que sua saúde é:

- ☐ Excelente
- ☐ Muito boa
- ☐ Boa
- ☐ Razoável
- ☐ Ruim

10. Quais desses cuidados com a saúde você possui?

Assinale todas as opções que se aplicam

- ☐ Consultas com médicos especialistas
- ☐ Consulta com profissionais da saúde em geral
- ☐ Pratica exercícios físicos
- ☐ Seguro saúde
- ☐ Nenhum dos cuidados anteriores

11. Considerando a listagem abaixo, qual desses serviços em genética você já utilizou?

Assinale todas as opções que se aplicam

- ☐ Consultas com médicos geneticistas
- ☐ Reprodução assistida
- ☐ Consultas de aconselhamento genético
- ☐ Testes para diagnósticos de doenças
- ☐ Testes genéticos diretos ao consumidor de outras empresas
- ☐ Nenhum dos serviços anteriores

Testes genéticos diretos ao consumidor

Nas questões abaixo, gostaríamos de saber quais as suas principais motivações e expectativas ao adquirir o teste.

12. O que motivou você a adquirir o teste genético da Genera?

Selecione apenas uma resposta para cada item (Discordo/Nem discordo, nem concordo/Concordo)

- Ancestralidade biogeográfica (gostaria de conhecer minhas origens)
- Descobrir sobre predisposições genéticas para doenças
- Entender melhor uma doença que já possui
- Saber quais são os melhores medicamentos para você
- Busca de parentes (descobrir e conhecer outros familiares)
- Características sem interesse clínico prévio ("curiosidades genéticas")
- Busca de reconhecimento de cidadania/obtenção de passaporte
- Necessidade de comprovação de cotas raciais
- Confirmação de algum parentesco
- Descobrir sobre predisposições de características ligadas ao estilo de vida

Experiência com os resultados

Nesta sessão iremos abordar alguns temas sobre a sua experiência com os seus resultados. Responda considerando os impactos que os resultados tiveram em sua vida.

13. Você se considera apto a compreender os resultados do teste sem a ajuda de um profissional da saúde?

- ☐ () Discordo
- ☐ () Nem discordo, nem concordo
- ☐ () Concordo

14. Sobre as informações recebidas em seus resultados serem úteis para a sua vida, você considera que... (apenas uma resposta para cada item: Discordo/Nem discordo, nem concordo/Concordo)

- Os resultados levaram a alguma mudança de hábitos e investimentos em qualidade de vida e saúde
- As informações adquiridas conseguiram direcionar quais as melhores condutas em saúde a serem adotadas
- Foi possível determinar com precisão a sua ancestralidade biogeográfica
- Conseguiu conhecer e ampliar sua relação com outros parentes verdadeiros
- Começou a entender melhor sobre genética
- Entendeu quais são os melhores medicamentos para você
- Irá investir mais em saúde
- Recomendaria a realização do teste para outras pessoas
- Seria importante consultar um profissional da saúde
- O resultado de Ancestralidade Global foi importante para a sua autopercepção de identidade étnico/racial
- Os resultados de ancestralidade global condizem com a ancestralidade que conhece de sua família
- Sente segurança quanto à privacidade dos seus dados
- Compartilharia seu resultado com familiares no caso de identificação de risco para doença genética

15. Você consultou algum profissional de saúde devido aos resultados?

- ☐ () Sim
- ☐ () Não

16. Qual profissional você consultou?

É possível marcar mais de uma resposta

- ☐ () Médico
- ☐ () Nutricionista
- ☐ () Educador físico
- ☐ () Aconselhador genético
- ☐ () Outros _____

17. Qual a especialidade do médico consultado?

É possível marcar mais de uma resposta

- ☐ () Cardiologista
- ☐ () Endocrinologista
- ☐ () Nutrologista

- ☐ Hematologista
- ☐ Dermatologista
- ☐ Clínico geral
- ☐ Gastroenterologista
- ☐ Ginecologista
- ☐ Neurologista
- ☐ Geneticista
- ☐ Não se aplica
- ☐ Outros_____

18. Dentre os motivos abaixo, quais foram responsáveis pela sua decisão em procurar um profissional de saúde? (possibilidade de marcar mais de uma resposta)

- ☐ Tem histórico na família (pelo menos um parente de primeiro ou segundo grau - pais, filhos, sobrinhos, tios e primos) de alguém com doença influenciada pela genética (câncer, Alzheimer, outros)
- ☐ Já possui alguma doença de influência genética
- ☐ Ficou preocupado com um ou mais resultados do próprio teste
- ☐ Não entendeu um ou mais resultados
- ☐ Prefere que um profissional de saúde informe melhor sobre os resultados
- ☐ Outros_____

19. O profissional consultado já conhecia o teste?

- ☐ Sim
- ☐ Não
- ☐ Não sei responder

20. O profissional consultado soube interpretar os seus resultados?

- ☐ Sim
- ☐ Não
- ☐ Parcialmente
- ☐ Não sei responder

21. Você acha interessante a disponibilização de profissionais da Genera para aconselhamento genético?

- ☐ Sim
- ☐ Não
- ☐ Indiferente

22. Como você se sentiu após receber os resultados? (possibilidade de marcar mais de uma resposta)

- ☐ Aliviado
- ☐ Feliz
- ☐ Preocupado
- ☐ Desapontado
- ☐ Indiferente
- ☐ Outros_____

23. Caso você tenha ficado preocupado ou desapontado ao receber o resultado, devido a quais resultados isso ocorreu?

É possível marcar mais de uma resposta

- ☐ Ancestralidade global/Linhagens
- ☐ Busca parentes
- ☐ Saúde (painéis Farma, Doenças Genéticas e Escala de Risco Genético)
- ☐ Bem estar (painéis Nutri, Fit, Skin, Aging e You)
- ☐ Não sei responder
- ☐ Não se aplica

24. Você fez alguma das seguintes alterações relacionadas à alimentação que foram especificamente motivadas por seus resultados da Genera?

É possível marcar mais de uma resposta

- ☐ Passei a ingerir mais frutas
- ☐ Passei a ingerir mais vegetais
- ☐ Deixei de ingerir ou reduzi algum tipo de alimento (por exemplo, fast food e alimentos com glúten ou lactose)

- ☐ Adotei alguma dieta
- ☐ Passei a fazer uso de suplementos e/ou vitaminas
- ☐ Não realizei nenhuma alteração na minha alimentação
- ☐ Outros_____

25. Você buscou alguma das alternativas abaixo que foram especificamente motivadas por seus resultados de saúde?

É possível marcar mais de uma resposta

- ☐ Busquei orientação médica ou de um profissional da saúde
- ☐ Realizei exames complementares para confirmação de resultados
- ☐ Realizei exames periódicos (check-up) com o objetivo de prevenir ou identificar precocemente alguma condição de saúde que tive predisposição genética identificada
- ☐ Troquei algum medicamento ou passei a observar melhor minha resposta ao seu uso
- ☐ Contratei um plano de saúde novo
- ☐ Contratei um seguro de vida
- ☐ Não busquei realizar nenhum cuidado adicional com minha saúde
- ☐ Outros_____

26. Você fez alguma das seguintes alterações relacionadas a atividades físicas que foram especificamente motivadas por seus resultados da Genera?

É possível marcar mais de uma resposta

- ☐ Comecei a praticar atividades físicas
- ☐ Passei a praticar mais atividades físicas
- ☐ Alterei meus treinos físicos com base nas predisposições identificadas
- ☐ Não realizei nenhuma alteração nas atividades físicas
- ☐ Outros_____

27. Você fez alguma das seguintes alterações relacionadas a hábitos de vida que foram especificamente motivadas por seus resultados da Genera?

É possível marcar mais de uma resposta

- ☐ Passei a cuidar mais da minha pele (uso de protetor solar, por exemplo)
- ☐ Reduzi o consumo de bebidas alcoólicas
- ☐ Reduzi o consumo de cigarros
- ☐ Adotei hábitos para melhorar a qualidade do sono
- ☐ Adotei hábitos para reduzir meu estresse
- ☐ Não realizei nenhuma alteração nos meus hábitos de vida
- ☐ Outros_____

28. Os resultados do teste, em conjunto com um médico ou exame complementar, contribuíram para a realização de algum novo diagnóstico de saúde?

É possível marcar mais de uma resposta

- ☐ Doença crônica (hipertensão e diabetes, por exemplo)
- ☐ Intolerância alimentar
- ☐ Deficiência de vitaminas
- ☐ Tratamento inapropriado/mudança de tratamento ou medicamento
- ☐ Não realizei exames adicionais, nem passei em consultas médicas
- ☐ Não contribuiu para novos diagnósticos
- ☐ Outros_____

29. Sobre sua percepção após realizar o teste da Genera você... (apenas uma resposta para cada item: Discordo/Nem discordo, nem concordo/Concordo)

- Está confiante na qualidade e precisão dos seus resultados
- O produto atendeu às suas expectativas em relação ao preço pago
- Sente que tem mais controle sobre sua saúde
- Aprendeu algo para melhorar sua saúde que não sabia antes
- Considera que a informação recebida influenciou a forma como vai gerir sua saúde no futuro
- Considera que o que aprendeu pode ajudar a reduzir suas chances de ficar doente
- Está desapontado porque seus resultados não forneceram informações relevantes

30. Sobre sua satisfação e compreensão do teste... (apenas uma resposta para cada item: Discordo/Nem discordo, nem concordo/Concordo)

- Fiquei satisfeito com o teste de ancestralidade
- As informações trazidas no teste de ancestralidade foram suficientes para compreensão do resultado e dos grupos populacionais analisados
- Fiquei satisfeito com o resultado do Busca parentes
- As informações trazidas no Busca parentes foram suficientes para compreensão do resultado
- Fiquei satisfeito com os resultados dos painéis de Bem-estar (Nutri, Fit, Skin, Aging, You)
- As informações trazidas nos relatórios de bem-estar foram suficientes para compreensão do resultado e da característica analisada
- Fiquei satisfeito com os resultados do painel de Doenças genéticas
- As informações trazidas nos relatórios de Doenças Genéticas foram suficientes para compreensão do resultado e da doença/condição analisada
- Fiquei satisfeito com os resultados do painel de Escala de Risco Genético
- As informações trazidas nos relatórios de Escala de Risco Genético foram suficientes para compreensão do resultado e da doença/condição analisada
- Fiquei satisfeito com os resultados do painel Farma
- As informações trazidas nos relatórios do painel Farma foram suficientes para compreensão do resultado e da característica analisada

Survey in english

Sociodemographic profile

The data below will help us get to know you better anonymously

1. Age

2. Biological sex

☐ Female

☐ Male

☐ I prefer not to disclose

3. How do you identify your gender?

☐ Female

☐ Male

☐ Other

☐ I prefer not to disclose

4. Which state do you live in?

☐ AC (Acre)

☐ AL (Alagoas)

☐ AM (Amazonas)

☐ BA (Bahia)

☐ CE (Ceará)

☐ DF (Distrito Federal)

☐ ES (Espírito Santo)

☐ GO (Goiás)

☐ MA (Maranhão)

☐ MG (Minas Gerais)

☐ MS (Mato Grosso do Sul)

☐ MT (Mato Grosso)

☐ PA (Pará)

☐ PB (Paraíba)

☐ PE (Pernambuco)

☐ PI (Piauí)

☐ PR (Paraná)

☐ RJ (Rio de Janeiro)

☐ RN (Rio Grande do Norte)

☐ RO (Rondônia)

☐ RR (Roraima)

☐ RS (Rio Grande do Sul)

☐ SC (Santa Catarina)

☐ SE (Sergipe)

☐ SP (São Paulo)

☐ TO (Tocantins)

5. What is your level of education?

☐ Unfinished primary education

☐ Finished primary education

☐ Unfinished secondary education

☐ Finished secondary education

☐ Unfinished undergraduate degree

☐ Finished undergraduate degree

☐ Graduate degree

6. What is your professional field?

☐ Administrative Services

☐ Business

☐ Health/Biological Sciences

- ☐ Education
- ☐ Civil Engineering/Construction
- ☐ Information Technology
- ☐ Legal
- ☐ Public Service
- ☐ Exact Sciences
- ☐ Social Sciences and Humanities
- ☐ Arts and Design
- ☐ Communication and Information
- ☐ Other

7. Which of the intervals below best fits your household income?

- ☐ 0 BRL
- ☐ < 1.302,00 BRL
- ☐ < 2.604,00 BRL
- ☐ 2.604,00 – 5.208,00 BRL
- ☐ 5.208,00 – 13.020,00 BRL
- ☐ 13.020,00 – R\$ 26.040,00 BRL
- ☐ > 26.040,00 BRL
- ☐ I prefer not to disclose

8. How do you self-identify in terms of your race/ethnicity?

- ☐ Yellow
- ☐ White
- ☐ Indigenous
- ☐ Brown
- ☐ Black
- ☐ I prefer not to disclose

Health profile

In this part of the survey, we want to know your opinion about your health and what are the main habits you have to dedicate yourself to it.

9. In general, you consider your health to be:

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Reasonable
- ☐ Bad

10. Which of these health care practices do you follow?

Check all that apply

- ☐ Consultations with medical specialists
- ☐ Consultations with healthcare professionals in general
- ☐ Practice physical exercises
- ☐ Health insurance
- ☐ None of the previous care

11. Considering the list below, which of these genetics services have you used?

Check all that apply

- ☐ Consultations with medical geneticists
- ☐ Assisted reproduction
- ☐ Genetic counseling consultations
- ☐ Tests for disease diagnosis
- ☐ Direct-to-consumer genetic tests from other companies
- ☐ None of the above services

Direct-to-consumer genetic tests

In the questions below, we would like to know your main motivations and expectations when purchasing the test.

12. What motivated you to purchase the Genera genetic test?

Please select only one response for each item (Disagree/Neutral/Agree)

- Biogeographical ancestry (I would like to know my origins)
- Find out about genetic predispositions to diseases
- Better understand a disease I already have
- Know which medications are best for you
- Relative search (discover and meet other family members)
- Characteristics of no prior clinical interest ("genetic curiosities")
- Seeking citizenship recognition/obtaining a passport
- Need to prove racial quotas
- Kinship confirmation
- Discover predispositions of lifestyle-related characteristics

Experience with the results

In this section, we will address some topics about your experience with your results. Answer considering the impacts that the results had on your life.

13. Do you consider yourself able to understand the test results without the help of a healthcare professional?

- ☐ Disagree
- ☐ Neutral
- ☐ Agree

14. About the information received in your results being useful for your life, do you consider that... (only one answer for each item: Disagree, Neutral or Agree)

- The results led to changes in habits and investments in quality of life and health
- The acquired information was able to direct which are the best health behaviors to be adopted
- It was possible to accurately determine your biogeographical ancestry
- You managed to get to know and expand your relationship with other relatives
- You began to understand better about genetics
- You understood which are the best medications for you
- You will invest more in health
- You would recommend others to take the test
- It would be important to consult a healthcare professional
- The Global Ancestry result was important for your self-perception of ethnic/racial identity
- The Global Ancestry result corresponds to the ancestry you know from your Family
- You feel secure about the privacy of your data
- You would share your result with family members in case of identification of risk for a genetic disease

15. Did you consult a healthcare professional because of the results?

- ☐ Yes
- ☐ No

16. Which professional did you consult?

It is possible to select more than one answer

- ☐ Physician
- ☐ Nutritionist
- ☐ Physical educator
- ☐ Genetic counselor
- ☐ Other _____

17. What is the specialty of the physician consulted?

It is possible to select more than one answer

- ☐ Cardiologist
- ☐ Endocrinologist
- ☐ Nutrologist
- ☐ Hematologist
- ☐ Dermatologist
- ☐ General practitioner
- ☐ Gastroenterologist

- ☐ Gynecologist
- ☐ Neurologist
- ☐ Geneticist
- ☐ Does not apply
- ☐ Other _____

18. Among the reasons below, which ones were responsible for your decision to seek a healthcare professional? (it was possible to mark more than one answer)

- ☐ You have a family history (at least one first or second degree relative - parents, children, nephews, uncles and cousins) of someone with a disease influenced by genetics (cancer, Alzheimer's, others)
- ☐ You already have a genetically influenced disease
- ☐ You were concerned about one or more results of the test
- ☐ You did not understand one or more results
- ☐ You prefer a healthcare professional to provide more information about the results
- ☐ Other _____

19. Was the consulted professional already familiar with the test?

- ☐ Yes
- ☐ No
- ☐ I don't know

20. Did the consulted professional know how to interpret your results?

- ☐ Yes
- ☐ No
- ☐ Partially
- ☐ I don't know

21. Do you find it interesting to have General professionals available for genetic counseling?

- ☐ Yes
- ☐ No
- ☐ Indifferent

22. How did you feel after receiving the results? (it was possible to mark more than one answer)

- ☐ Relieved
- ☐ Glad
- ☐ Worried
- ☐ Disappointed
- ☐ Indifferent
- ☐ Other _____

23. If you were worried or disappointed upon receiving the result, which results caused this?

It is possible to select more than one answer

- ☐ Global Ancestry/Lineages
- ☐ Relative search
- ☐ Health (Pharma, Genetic Diseases and Genetic Risk Scale panels)
- ☐ Wellness (Nutri, Fit, Skin, Aging and You panels)
- ☐ I don't know
- ☐ Does not apply

24. Have you made any of the following dietary changes specifically motivated by your General results?

It is possible to select more than one answer

- ☐ I started eating more fruits
- ☐ I started eating more vegetables
- ☐ I stopped consuming or reduced some type of food (e.g., fast food and foods with gluten or lactose)
- ☐ I adopted a diet
- ☐ I started using supplements and/or vitamins
- ☐ I did not make any changes to my diet
- ☐ Other _____

25. Have you pursued any of the following alternatives specifically motivated by your health results?

It is possible to select more than one answer

- ☐ I sought medical advice or advice from a healthcare professional
- ☐ I underwent additional tests to confirm results
- ☐ I underwent periodic exams (check-ups) with the aim of preventing or early identifying any health condition for which I had an identified genetic predisposition
- ☐ I changed a medication or started paying better attention to my response to its use
- ☐ I signed up for a new health plan
- ☐ I purchased life insurance
- ☐ I did not seek to take any additional care of my health
- ☐ Other _____

26. Have you made any of the following changes related to physical activities specifically motivated by your Genera results?

It is possible to select more than one answer

- ☐ I started practicing physical activities
- ☐ I started practicing more physical activities
- ☐ I changed my physical workouts based on the identified predispositions
- ☐ I did not make any changes to my physical activities
- ☐ Other _____

27. Have you made any of the following changes related to lifestyle habits specifically motivated by your Genera results?

It is possible to select more than one answer

- ☐ I started taking better care of my skin (e.g., using sunscreen)
- ☐ I reduced the consumption of alcoholic beverages
- ☐ I reduced the consumption of cigarettes
- ☐ I adopted habits to improve sleep quality
- ☐ I adopted habits to reduce my stress
- ☐ I did not make any changes to my lifestyle habits
- ☐ Other _____

28. Have the test results, together with a doctor or complementary exam, contributed to any new health diagnosis?

It is possible to select more than one answer

- ☐ Chronic disease (hypertension and diabetes, for example)
- ☐ Food intolerance
- ☐ Vitamin deficiency
- ☐ Inappropriate treatment/change of treatment or medication
- ☐ I did not undergo additional tests or medical consultations
- ☐ It did not contribute to new diagnoses
- ☐ Other _____

29. Regarding your perception after taking the Genera test, you...(only one answer for each item: Disagree, Neutral or Agree)

- Are confident in the quality and accuracy of your results
- The product met your expectations regarding the price paid
- Feel like you have more control over your health
- Learned something to improve your health that you didn't know before
- Consider that the information received has influenced how you will manage your health in the future
- Consider that what you have learned can help reduce your chances of getting sick
- Are disappointed that your results did not provide relevant information

30. Regarding your satisfaction and understanding of the test...(only one answer for each item: Disagree, Neutral or Agree)

- I was satisfied with the ancestry test
- The information provided in the ancestry test was sufficient for understanding the result and the analyzed population groups
- I was satisfied with the Relative Search result
- The information provided in the Relative Search was sufficient for understanding the result
- I was satisfied with the wellness panels' results (Nutri, Fit, Skin, Aging, You)
- The information provided in the wellness reports was sufficient for understanding the result and the analyzed characteristic
- I was satisfied with the Genetic Diseases panel results

- The information provided in the Genetic Diseases reports was sufficient for understanding the result and the analyzed disease/condition
- I was satisfied with the Genetic Risk Scale panel results
- The information provided in the Genetic Risk Scale reports was sufficient for understanding the result and the analyzed disease/condition
- I was satisfied with the Pharma panel results
- The information provided in the Pharma panel reports was sufficient for understanding the result and the analyzed characteristic

Fig. S1 Participant's healthcare practices. Some respondents mentioned more than one (n=1513)

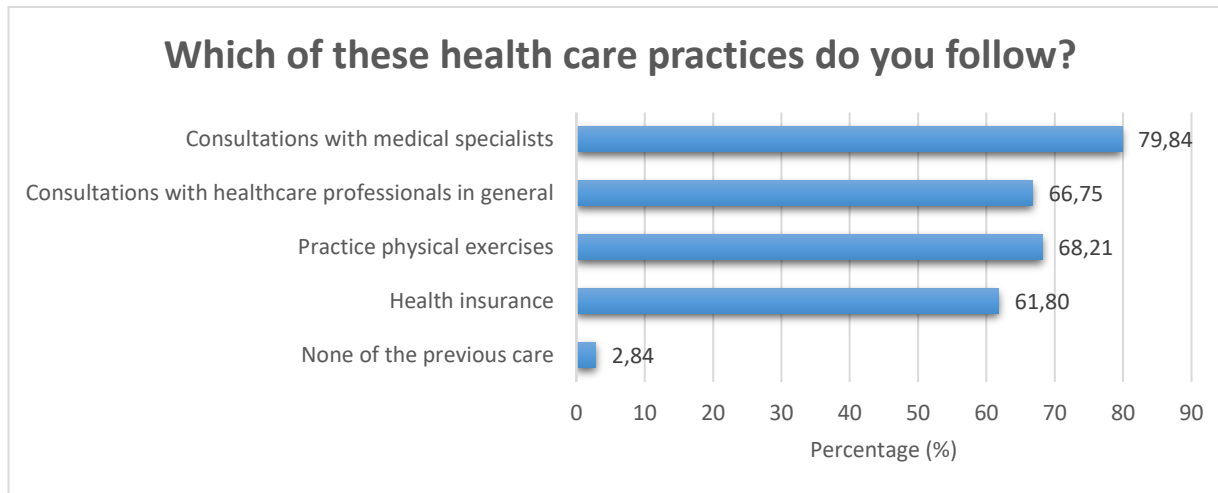


Fig. S2 Genetic services that customers have already used. Some respondents mentioned more than one (n=1513)

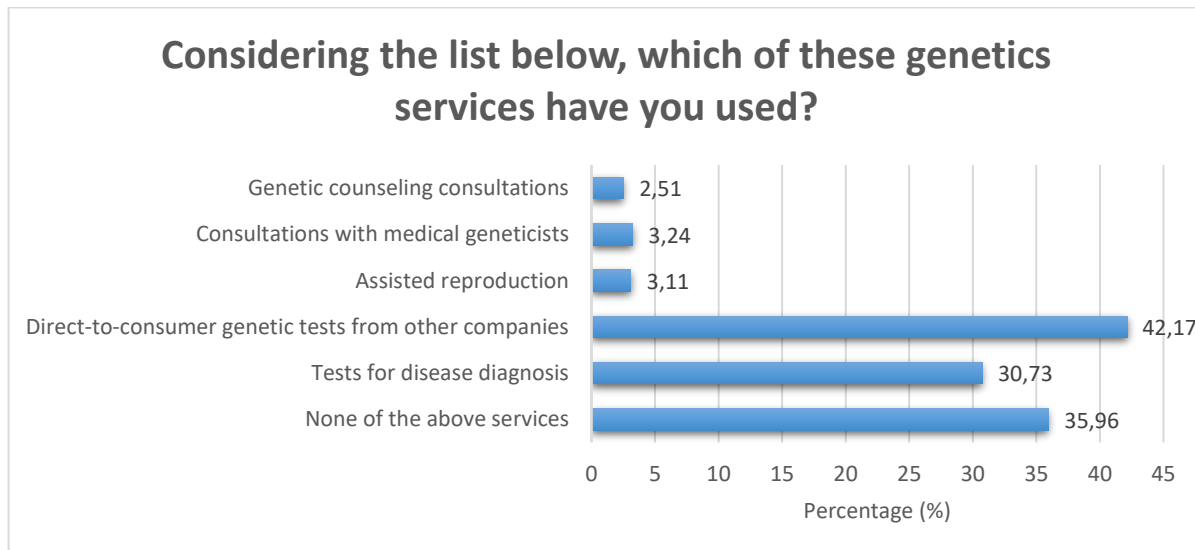


Fig. S3 Feelings after test results (n=1513)

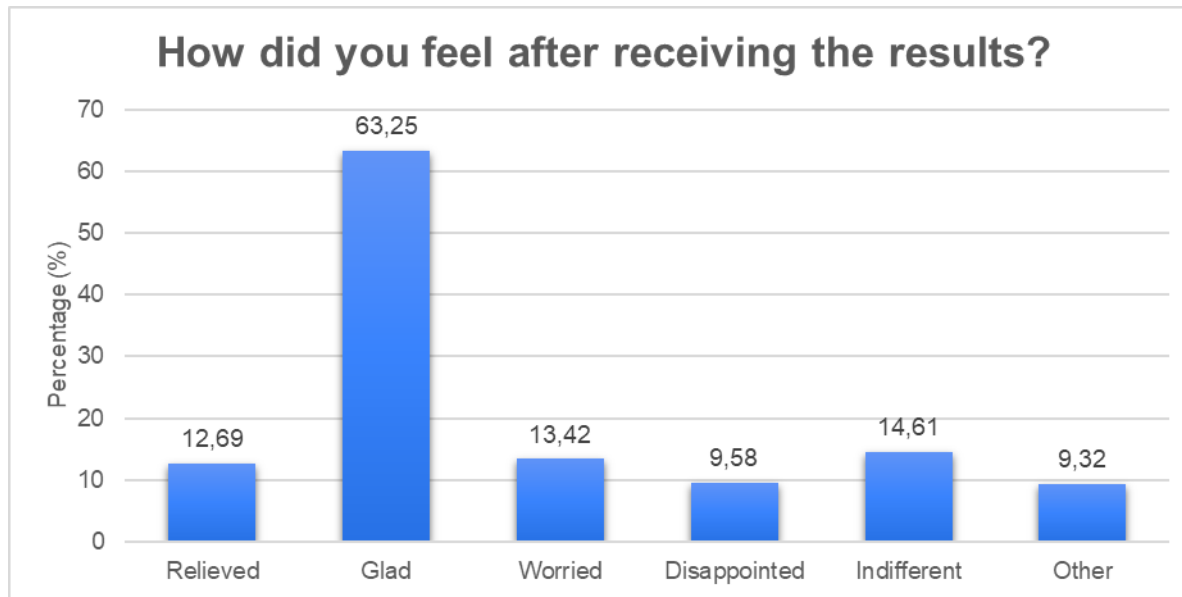


Fig. S4 Results that caused concern or disappointment (n=334)

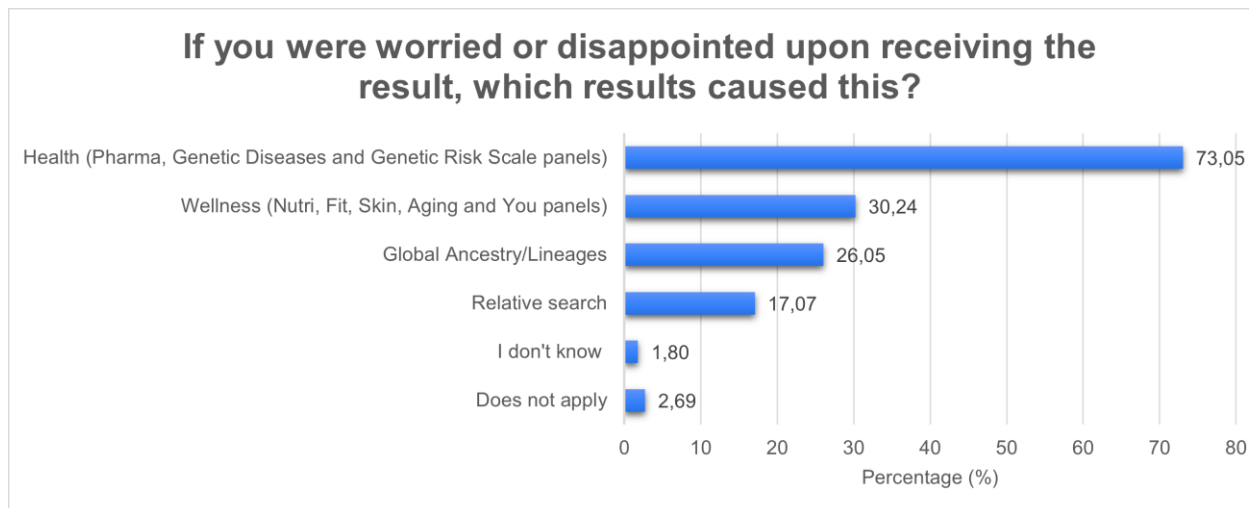


Fig. S5 Test's contribution to novel diagnoses (n=1513)

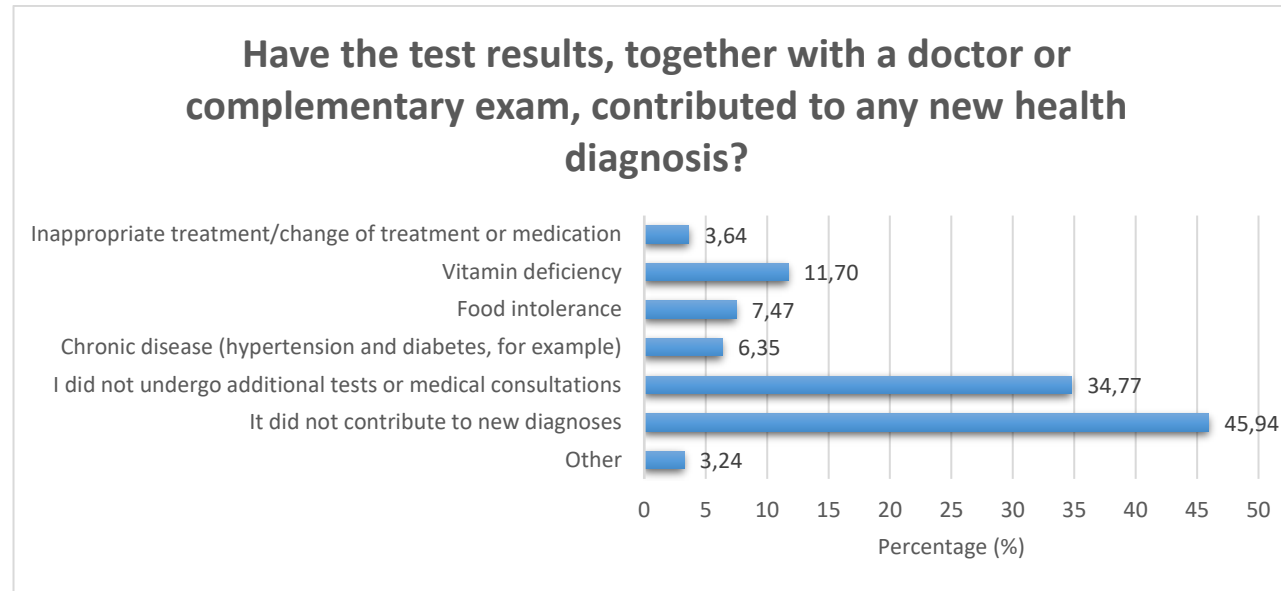
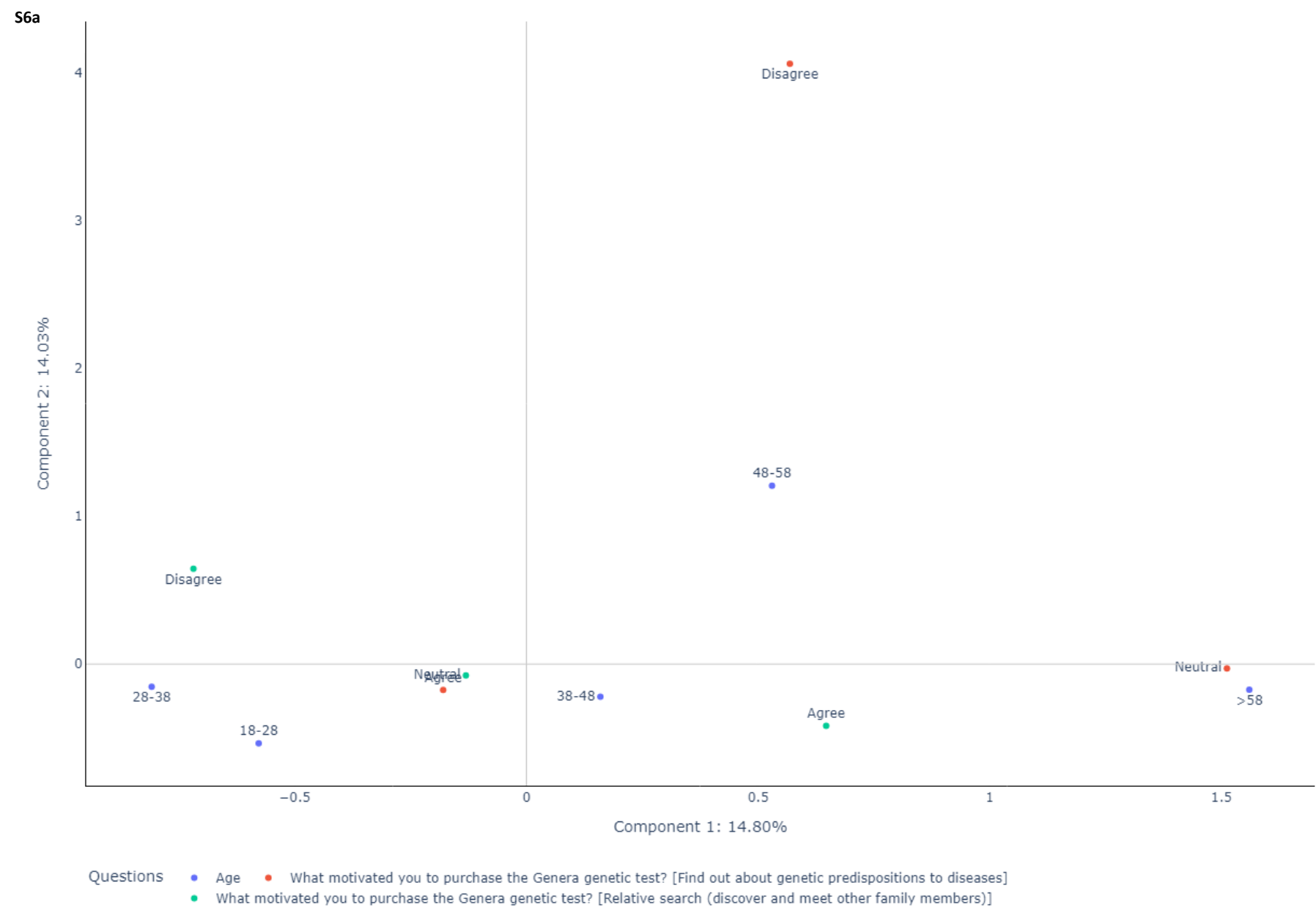
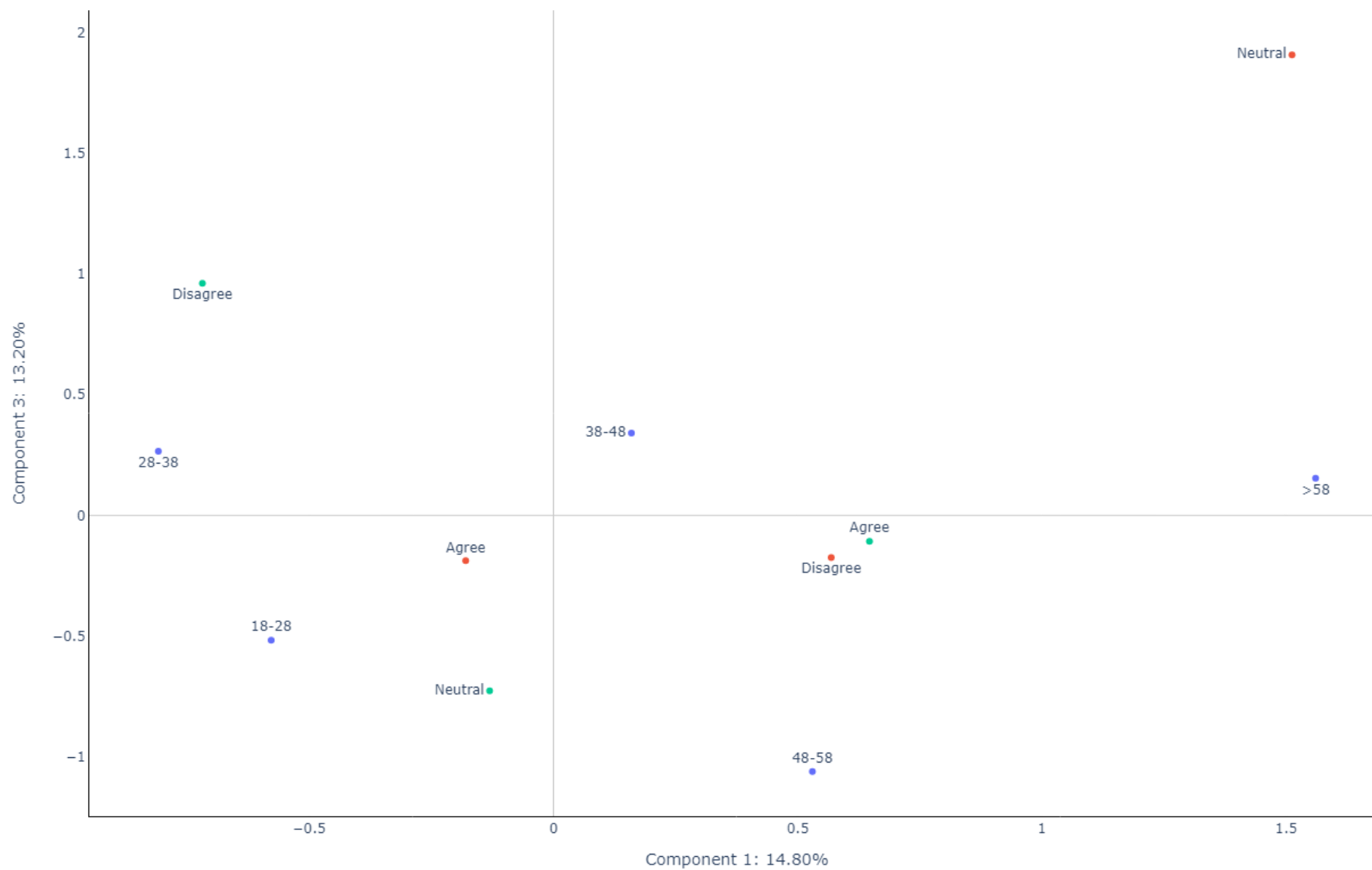


Fig. S6 Multiple correspondence analysis for significant chi-square results by age



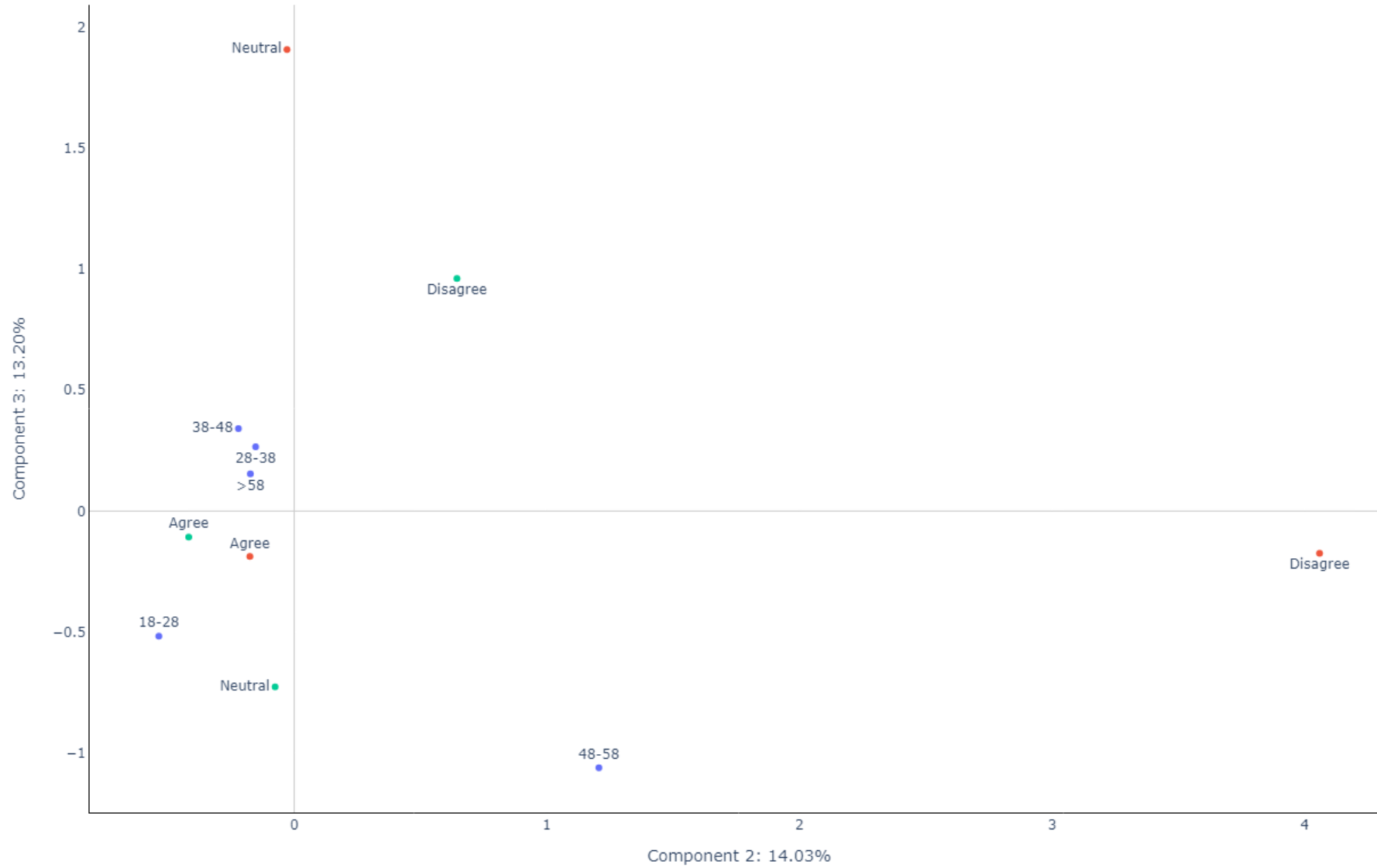
S6b



Questions

- Age
- What motivated you to purchase the Genera genetic test? [Find out about genetic predispositions to diseases]
- What motivated you to purchase the Genera genetic test? [Relative search (discover and meet other family members)]

S6c

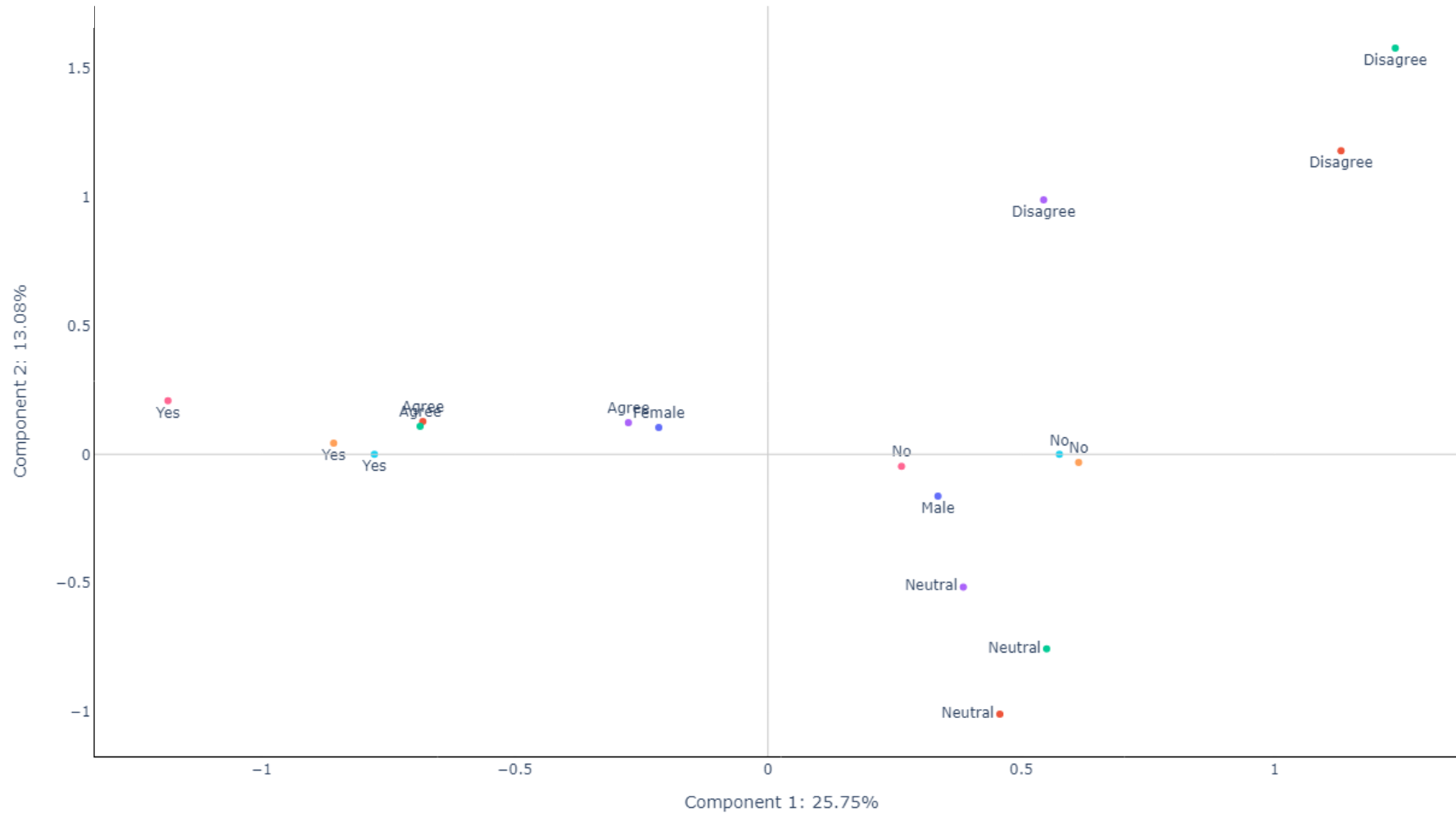


Questions

- Age
- What motivated you to purchase the Genera genetic test? [Find out about genetic predispositions to diseases]
- What motivated you to purchase the Genera genetic test? [Relative search (discover and meet other family members)]

Fig. S7 Multiple correspondence analysis for significant chi-square results by biological sex

S7a



Questions

- Biological sex
- About the information received in your results being useful for your life, do you consider that... [The acquired information was able to direct which are the best health behaviors to be adopted]
- About the information received in your results being useful for your life, do you consider that... [You will invest more in health]
- About the information received in your results being useful for your life, do you consider that... [You feel secure about the privacy of your data]
- Have you pursued any of the following alternatives specifically motivated by your health results?
- Have you made any of the following changes related to lifestyle habits specifically motivated by your Genera results?
- Did you consult a healthcare professional because of the results?

S7b



Questions

- Biological sex
- About the information received in your results being useful for your life, do you consider that... [The acquired information was able to direct which are the best health behaviors to be adopted]
- About the information received in your results being useful for your life, do you consider that... [You will invest more in health]
- About the information received in your results being useful for your life, do you consider that... [You feel secure about the privacy of your data]
- Have you pursued any of the following alternatives specifically motivated by your health results?
- Have you made any of the following changes related to lifestyle habits specifically motivated by your Genera results?
- Did you consult a healthcare professional because of the results?

S7c



Questions

- Biological sex
- About the information received in your results being useful for your life, do you consider that... [The acquired information was able to direct which are the best health behaviors to be adopted]
- About the information received in your results being useful for your life, do you consider that... [You will invest more in health]
- About the information received in your results being useful for your life, do you consider that... [You feel secure about the privacy of your data]
- Have you pursued any of the following alternatives specifically motivated by your health results?
- Have you made any of the following changes related to lifestyle habits specifically motivated by your Genera results?
- Did you consult a healthcare professional because of the results?

Fig. S8 Correspondence analysis for significant chi-square results by professional field

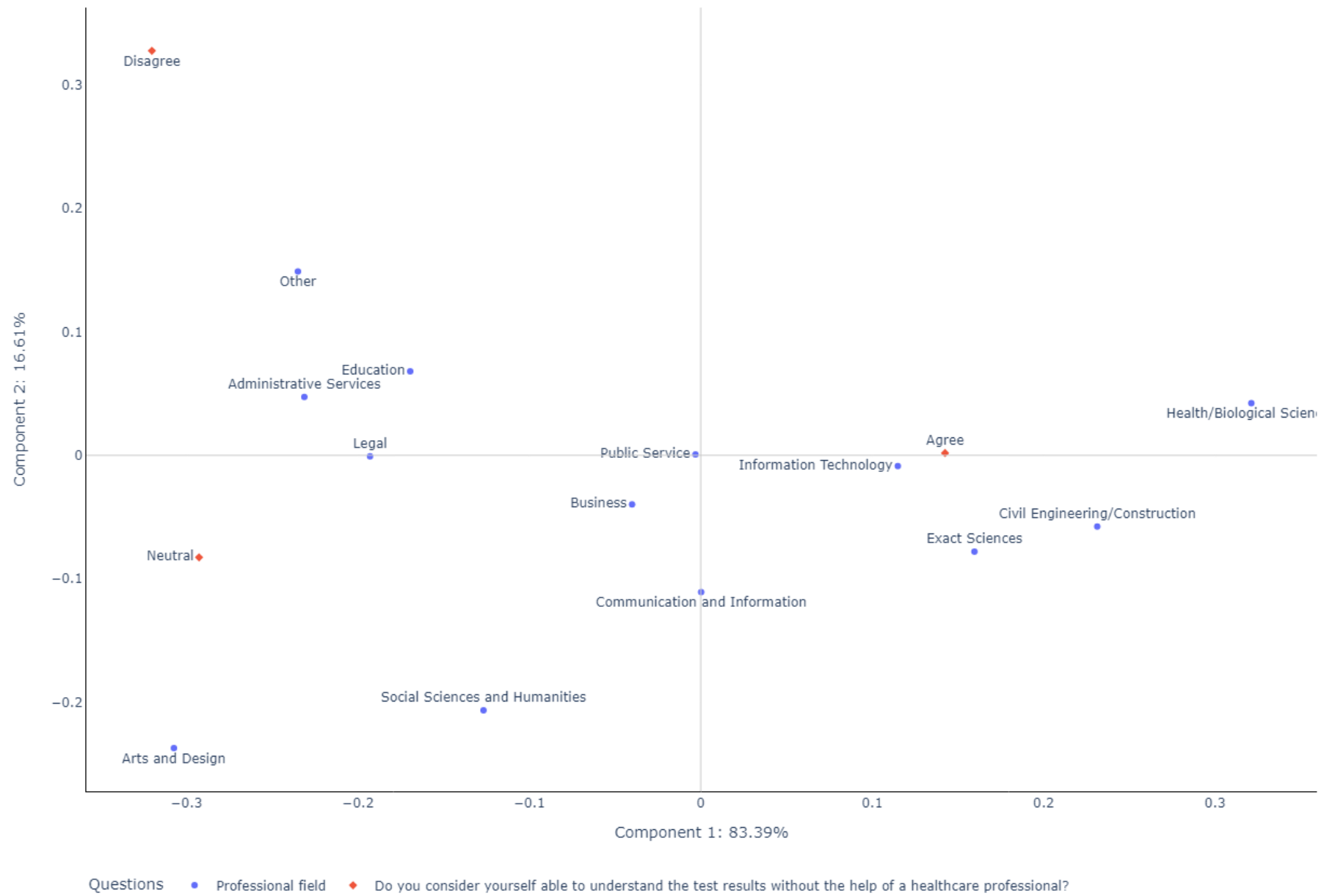


Table S1 Healthcare professional support

Do you consider yourself able to understand the test results without the help of a healthcare professional? (n=1513)	%
Agree	66.89
Neutral	26.77
Disagree	6.35
Do you find it interesting to have General professionals available for genetic counseling? (n=1513)	
Yes	83.01
No	1.39
Indifferent	15.60
Did you consult a healthcare professional because of the results? (n=1513)	
Yes	18.44
No	81.56
Which professional did you consult? (n=279)	
Genetic counselor	3.23
Physical educator	17.92
Physician	81.72
Nutritionist	37.63
Other	4.30
What is the specialty of the physician consulted? (n=279)	
Cardiologist	32.97
Endocrinologist	29.03
Nutrologist	19.35
Hematologist	7.89
Dermatologist	8.60
General practitioner	22.58
Gastroenterologist	15.05
Gynecologist	13.26
Neurologist	9.32
Geneticist	4.66
Other	13.26
Does not apply	7.53
Among the reasons below, which ones were responsible for your decision to seek a healthcare professional? (n=279)	
You did not understand one or more results	11.47
You prefer a healthcare professional to provide more information about the results	27.60
You already have a genetically influenced disease	28.32
You were concerned about one or more results of the test	49.82

You have a family history (at least one first or second degree relative - parents, children, nephews, uncles and cousins) of someone with a disease influenced by genetics (cancer, Alzheimer's, others)	55.56
Other	8.60
Was the consulted professional already familiar with the test? (n=279)	
Yes	49.82
No	31.54
I don't know	18.64
Did the consulted professional know how to interpret your results? (n=279)	
Yes	62.01
Partially	20.07
No	3.94
I don't know	13.98

Table S2 Perception after taking the test (n=1513)

Regarding your perception after taking the Genera test, you...	Agree %	Neutral %	Disagree %
The product met your expectations regarding the price paid	70.06%	22.21%	7.73%
Are confident in the quality and accuracy of your results	68.61%	27.83%	3.57%
Learned something to improve your health that you didn't know before	65.57%	23.79%	10.64%
Consider that the information received has influenced how you will manage your health in the future	59.22%	27.76%	13.02%
Consider that what you have learned can help reduce your chances of getting sick	53.21%	32.19%	14.61%
Feel like you have more control over your health	39.52%	45.94%	14.54%
Are disappointed that your results did not provide relevant information	11.17%	25.05%	63.78%

Table S3 Test satisfaction and understanding (n=1513)

Regarding your satisfaction and understanding of the test...	Agree	Neutral	Disagree
The information provided in the Relative Search was sufficient for understanding the result	35,36	47,98	16,66
I was satisfied with the Relative Search result	35,96	48,78	15,27
The information provided in the Pharma panel reports was sufficient for understanding the result and the analyzed characteristic	54,99	34,50	10,51
I was satisfied with the Pharma panel results	57,37	33,38	9,25
The information provided in the wellness reports was sufficient for understanding the result and the analyzed characteristic	61,40	30,60	8,00
I was satisfied with the wellness panels' results	64,71	28,02	7,27
The information provided in the Genetic Risk Scale reports was sufficient for understanding the result and the analyzed disease/condition	59,22	30,54	10,24
I was satisfied with the Genetic Risk Scale panel results	66,23	26,31	7,47
The information provided in the Genetic Diseases reports was sufficient for understanding the result and the analyzed disease/condition	59,88	30,01	10,11
I was satisfied with the Genetic Diseases panel results	68,54	23,73	7,73
The information provided in the ancestry test was sufficient for understanding the result and the analyzed population groups	61,47	28,88	9,65
I was satisfied with the ancestry test	78,45	16,85	4,69

Table S4 Qui-Square test.

Question	Age	Biological sex	Education	Professional field	Household income	Region
Motivations for purchasing the test						
Need to prove racial quotas	n.a.	n.s.	n.a.	n.a.	n.a.	n.a.
Kinship confirmation	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Seeking citizenship recognition/obtaining a passport	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Better understand a disease I already have	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Know which medications are best for you	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Relative search (discover and meet other family members)	0.01457	n.s.	n.s.	n.s.	n.s.	n.s.
Discover predispositions of lifestyle-related characteristics	0.01026	n.s.	n.s.	n.s.	n.s.	n.s.
Characteristics of no prior clinical interest ("genetic curiosities")	0.00015	n.s.	n.s.	n.s.	n.s.	n.s.
Biogeographical ancestry	n.s.	n.s.	n.a.	n.a.	n.a.	n.s.
Find out about genetic predispositions to diseases	0.00022	n.s.	n.a.	n.a.	n.a.	n.a.
About the information received in your results being useful for your life, do you consider that...						
You managed to get to know and expand your relationship with other relatives	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
The results led to changes in habits and investments in quality of life and health	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
You understood which are the best medications for you	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
You began to understand better about genetics	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
It would be important to consult a healthcare professional	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
The acquired information was able to direct which are the best health behaviors to be adopted	n.s.	0.02297	n.s.	n.s.	n.s.	n.s.
You will invest more in health	n.s.	0.04895	n.s.	n.s.	n.s.	n.s.
The Global Ancestry result was important for your self-perception of ethnic/racial identity	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
It was possible to accurately determine your biogeographical ancestry	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
You feel secure about the privacy of your data	n.s.	0.02598	n.s.	n.s.	n.s.	n.s.
The Global Ancestry result corresponds to the ancestry you know from your family	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
You would recommend others to take the test	n.s.	n.s.	n.s.	n.a.	n.a.	n.a.
You would share your result with family members in case of identification of risk for a genetic disease	n.s.	n.s.	n.a.	n.a.	n.a.	n.a.
Regarding your perception after taking the Genera test, you...						
Are disappointed that your results did not provide relevant information	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

Feel like you have more control over your health	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Consider that what you have learned can help reduce your chances of getting sick	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Consider that the information received has influenced how you will manage your health in the future	0.00146	n.s.	n.s.	n.s.	n.s.	n.s.
Learned something to improve your health that you didn't know before	0.00001	n.s.	n.s.	n.s.	n.s.	n.s.
Are confident in the quality and accuracy of your results	n.s.	n.s.	n.s.	n.a.	n.a.	n.a.
The product met your expectations regarding the price paid	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Regarding your satisfaction and understanding of the test...						
The information provided in the Relative Search was sufficient for understanding the result	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
I was satisfied with the Relative Search result	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
The information provided in the Pharma panel reports was sufficient for understanding the result and the analyzed characteristic	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
I was satisfied with the Pharma panel results	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
The information provided in the wellness reports was sufficient for understanding the result and the analyzed characteristic	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
I was satisfied with the wellness panels' results	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
The information provided in the Genetic Risk Scale reports was sufficient for understanding the result and the analyzed disease/condition	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
I was satisfied with the Genetic Risk Scale panel results	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
The information provided in the Genetic Diseases reports was sufficient for understanding the result and the analyzed disease/condition	0.03208	n.s.	n.s.	n.s.	n.s.	n.s.
I was satisfied with the Genetic Diseases panel results	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
The information provided in the ancestry test was sufficient for understanding the result and the analyzed population groups	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
I was satisfied with the ancestry test	n.s.	n.s.	n.s.	n.a.	n.a.	n.s.
In general, you consider your health to be:	n.s.	n.s.	n.a.	n.a.	n.a.	n.a.
Do you consider yourself able to understand the test results without the help of a healthcare professional?	n.s.	n.s.	n.s.	0.00020	n.a.	n.s.
Did you consult a healthcare professional because of the results?	n.s.	0.00873	n.s.	n.s.	n.s.	n.s.
Have you made any of the following dietary changes specifically motivated by your Genera results?	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Have you pursued any of the following alternatives specifically motivated by your health results?	n.s.	0.00240	n.s.	n.s.	n.s.	n.s.
Have you made any of the following changes related to physical activities specifically motivated by your Genera results?	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

Have you made any of the following changes related to lifestyle habits specifically motivated by your	n.s.	0.00178	n.s.	n.s.	n.s.	n.s.
Genera results?						

n.a. Not available (more than 20% of the response pairs did not have more than 5 people); n.s. Not significant

Table S5 Bonferroni post-hoc test by professional field

Professional field	Answer	Question
		Do you consider yourself able to understand the test results without the help of a healthcare professional?
Arts and Design	Agree	n.s.
Arts and Design	Disagree	n.s.
Arts and Design	Neutral	n.s.
Exact Sciences	Agree	n.s.
Exact Sciences	Disagree	n.s.
Exact Sciences	Neutral	n.s.
Social Sciences and Humanities	Agree	n.s.
Social Sciences and Humanities	Disagree	n.s.
Social Sciences and Humanities	Neutral	n.s.
Business	Agree	n.s.
Business	Disagree	n.s.
Business	Neutral	n.s.
Communication and Information	Agree	n.s.
Communication and Information	Disagree	n.s.
Communication and Information	Neutral	n.s.
Civil Engineering/Construction	Agree	n.s.
Civil Engineering/Construction	Disagree	n.s.
Civil Engineering/Construction	Neutral	n.s.
Education	Agree	n.s.
Education	Disagree	n.s.
Education	Neutral	n.s.
Legal	Agree	n.s.
Legal	Disagree	n.s.
Legal	Neutral	n.s.
Other	Agree	n.s.
Other	Disagree	n.s.
Other	Neutral	n.s.

Health/Biological Sciences	Agree	2.12759E-07
Health/Biological Sciences	Disagree	n.s.
Health/Biological Sciences	Neutral	4.3253E-06
Public Service	Agree	n.s.
Public Service	Disagree	n.s.
Public Service	Neutral	n.s.
Administrative Services	Agree	n.s.
Administrative Services	Disagree	n.s.
Administrative Services	Neutral	n.s.
Information Technology	Agree	n.s.
Information Technology	Disagree	n.s.
Information Technology	Neutral	n.s.

n.s. Not significant.

Table S6 Bonferroni post-hoc test by biological sex

Question	Bonferroni post-hoc
Have you made any of the following changes related to lifestyle habits specifically motivated by your General results?*	2.68386E-05
Have you pursued any of the following alternatives specifically motivated by your health results?*	3.62067E-05
About the information received in your results being useful for your life, do you consider that...[You feel secure about the privacy of your data]	
Agree	0.000136282
Disagree	n.s.
Neutral	0.001873562
Did you consult a healthcare professional because of the results? (Yes/No answer)	0.000131841
The acquired information was able to direct which are the best health behaviors to be adopted	
Agree	0.000582482
Disagree	0.003426445
Neutral	n.s.
You will invest more in health	
Agree	0.000341226
Disagree	n.s.
Neutral	0.002500035

n.s. Not significant.

* These questions were divided into two categories: one group included individuals who indicated at least one change after receiving their results, even if they also selected the option of not making any changes; the other group comprised those who selected only the option indicating no changes were made.

Table S7 Bonferroni post-hoc test by age

Question								
Age	Answer	Regarding your perception after taking the General test, you...[Learned something to improve your health that you didn't know before]	Regarding your perception after taking the General test, you...[Consider that the information received has influenced how you will manage your health in the future]	Motivations for purchasing the test [Relative search (discover and meet other family members)]	Motivations for purchasing the test [Characteristics of no prior clinical interest ("genetic curiosities")]	Motivations for purchasing the test [Discover predispositions of lifestyle-related characteristics]	Motivations for purchasing the test [Find out about genetic predispositions to diseases]	Regarding your satisfaction and understanding of the test... [The information provided in the Genetic Diseases reports was sufficient for understanding the result and the analyzed disease/condition]
18-28	Agree	0.006998514	0.026324713	n.s.	n.s.	n.s.	n.s.	n.s.
18-28	Disagree	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
18-28	Neutral	0.018388003	0.038621297	n.s.	n.s.	n.s.	n.s.	n.s.
28-38	Agree	0.000157861	0.011594424	0.001784427	0.001735806	0.003284793	0.004641016	0.04914626
28-38	Disagree	0.010345321	n.s.	0.001617381	0.001130282	0.000900664	n.s.	n.s.
28-38	Neutral	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
38-48	Agree	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
38-48	Disagree	n.s.	n.s.	n.s.	0.031902911	n.s.	n.s.	n.s.
38-48	Neutral	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
48-58	Agree	0.032687609	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
48-58	Disagree	n.s.	n.s.	n.s.	n.s.	n.s.	0.001852477	n.s.
48-58	Neutral	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
>58	Agree	0.003681095	0.000537516	n.s.	0.007923896	0.002470951	0.000509919	0.04066749
>58	Disagree	n.s.	n.s.	0.001494806	n.s.	n.s.	n.s.	n.s.
>58	Neutral	n.s.	0.004639118	n.s.	n.s.	n.s.	0.002189867	n.s.

n.s. Not significant.

Table S8 Health panels

Health panels		
Genetic Risk Scale	Genetic Diseases	Pharma
Alzheimer's Disease	Hereditary amyloidosis (V122I variant)	Metformin (Glifage®)
Breast Cancer	Hereditary amyloidosis (V50M variant)	Sildenafil (Viagra®)
Crohn's Disease	Hereditary amyloidosis (T80A variant)	Bisphosphonates
Ulcerative Colitis	Cancer	Acetylsalicylic acid (Aspirina®)
Inflammatory Bowel Disease	Alpha-1 Antitrypsin Deficiency (PIZ variant)	Acetylsalicylic acid (Aspirina Prevent®)
Gout	Alpha 1 Antitrypsin Deficiency (PIS variant)	Hydrochlorothiazide (Clorana®)
Type 1 Diabetes	Factor XII Deficiency	Sulfonylureas
Type 2 Diabetes	Parkinson's Disease	Nicotine
Colorectal Cancer	Parkinson's Disease and Gaucher's Disease	Opioids
Celiac Disease	Wilson Disease	Salbutamol (Aerolin®) and Salmeterol (Serevent®)
Dupuytren's contracture	Myeloproliferative Disorders	Atorvastatin (Lípor®)
Prostate Cancer	Hemochromatosis Type 1 (C282Y variant)	Oral Contraceptives
Hodgkin's Lymphoma	Hemochromatosis Type 1 (H63D variant)	Statins
Thyroid Cancer	Hemochromatosis Type 1 (S65C variant)	Nonsteroidal anti-inflammatory drugs
Coronary Artery Disease	Myocardial Infarction	Simvastatin (Zocor®)
Atrial Fibrillation	MUTYH Associated Polyposis (G396D variant)	
Bladder Cancer	Protection against thromboembolic events	
Ovarian Cancer	Thrombophilia (Prothrombin Factor II)	
	Thrombophilia (Factor V Leiden)	

Table S9 Wellness panels

Wellness panels				
Nutri	Fit	Skin	Aging	You
Vitamin B6	Physical endurance	Antioxidant capacity	Longevity	Warrior gene
Vitamin K	Athletic performance	Acne	Telomere length	Preference for daytime or nighttime hours
Vitamin D	Muscle soreness after physical exercise	Sun sensitivity	Photoaging	Mathematical ability
Iron deficiency		Vitamin C	Osteoporosis	
Iron deficiency anemia	Exercise-induced muscle damage	Risk for skin hyperpigmentation	Alopecia	Myopia
Iron overload	Bone density (bone strength)	Vitamin E	Type 2 Diabetes	Impulsivity
Lactose intolerance	Risk of obesity	Eyelid sagging	Age-related menopause	Bitter taste perception
Caffeine sensitivity	Body Mass Index (BMI)	Facial wrinkles	Essential tremor (not related to Parkinson's Disease)	Predisposition to alcoholism
Satiety feeling	Muscle gain		Age-related macular degeneration	Predisposition to nicotine dependence
Emotional hunger	Reduction of total cholesterol levels in response to physical exercise			Earwax
Sugar intake				
Effectiveness of the Mediterranean diet	Muscular strength			
	Muscular endurance			
Effectiveness of low-fat and high-fat diets	Achilles tendinopathy			
	Cardiorespiratory capacity			
Effectiveness of low-carb diet	Heart rate recovery after exercise			
Fat storage				
Folate (Vitamin B9 - C677T variant)				
Maintenance of results after weight loss intervention				