

ArmGenia and Genetic Screenings of Armenians From Artsakh

Final Planning Report and Community Action Plan

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Planning Report

This report outlines the key decisions and rationale behind the development of a comprehensive Community Action Plan aimed at improving access to genomic medicine and preventative healthcare services for the Armenian population, with a focus on those residing in Artsakh and the diaspora. The plan was formulated based on findings from an extensive Collaborative Community Resources and Needs Assessment, which involved gathering data from diverse stakeholders, including patients, providers, researchers, officials, and community organizations.

The collaborative assessment revealed several strengths and assets within the Armenian community that can be leveraged to enhance access to genomic medicine. These include: Strong cultural identity and global connections: Armenians worldwide share a deep sense of ethnic pride and heritage, facilitating unity and collaboration for health promotion efforts. Growing urban healthcare infrastructure: Major cities like Yerevan have an emerging infrastructure of hospitals, clinics, research universities, and modern genomic labs, albeit with room for improvement. Increasing number of trained specialists: Medical education partnerships are developing more genetic counselors and specialists in genomic medicine. Ongoing genomic research initiatives: Projects like ArmGenia are advancing the understanding of Armenian genetic risks and predispositions. Active diaspora health organizations: Armenian diaspora groups globally are engaged in promoting health education, dialogue, and advocacy. Influential community institutions: Churches and other community centers frequented by Armenians offer opportunities for outreach and service delivery, especially in rural areas.

However, the assessment also identified several priority needs and gaps that must be addressed through policy reforms, healthcare system enhancements, education, research growth,

and advocacy efforts. These include: Restricted rural healthcare access: Rural Armenians face severe geographic and financial barriers to accessing genomic services and follow-up care due to limited rural clinic capacity, high costs, long travel distances, and specialist shortages. Low genetic risk awareness and prevalent stigma: Across educational, media, community, and clinical settings, there is limited discussion of Armenian genetic risks, contributing to low awareness and screening delays. Stigma associated with genetic disorders inhibits open dialogue and service pursuit. Provider shortages outside major cities: Outside of urban centers, there are shortages of trained genetic counselors and specialists, reducing access to genomic medicine. Inadequate rural healthcare infrastructure: Rural clinics often lack updated diagnostic technology, IT systems, transportation, and care coordination capabilities necessary for providing modern genomic screening and care.

Throughout the assessment process, various community stakeholders provided valuable feedback that informed the development of the action plan. Key insights and recommendations from these stakeholders included: Healthcare providers emphasized the need for expanding insurance coverage for genomic screening and counseling, as well as increasing investment in telehealth and mobile health infrastructure to improve rural access. Researchers and academic institutions stressed the importance of boosting funding for genomic and precision health research, which could further our understanding of Armenian genetic risks and inform targeted interventions. Government officials highlighted the potential benefits of developing public subsidies to lower out-of-pocket costs for genomic services, thereby increasing affordability and accessibility. Community organizers and diaspora groups underscored the significance of culturally appropriate awareness campaigns and stigma reduction efforts, leveraging trusted institutions like churches and integrating genetic education into school curricula. Patients and

their families expressed a desire for improved care coordination, patient navigation support, and peer support programs to help navigate the complexities of accessing genomic medicine services.

Based on the assessment findings and stakeholder feedback, several key decisions were made in developing the Community Action Plan:

- Advocating for policy reforms:** To address financial barriers and improve rural access, the plan includes advocating for expanding insurance coverage for genomic screening and counseling, developing public subsidies to lower out-of-pocket costs, and increasing investment in telehealth and mobile health infrastructure.
- Enhancing healthcare delivery systems:** Recognizing the need for improved infrastructure and access, the plan prioritizes constructing new rural clinics and mobile screening units, upgrading diagnostic technology and IT systems, and improving care coordination and data sharing protocols.
- Promoting genetic literacy and reducing stigma:** To increase awareness and address cultural barriers, the plan includes launching genetics curriculum integration and stigma reduction campaigns, partnering with schools and faith-based institutions, and promoting screening through diverse media and community events.
- Expanding workforce training:** To address provider shortages, the plan focuses on forming academic and clinical partnerships to expand workforce training programs for genetic counselors and specialists, especially in rural areas.
- Increasing research and funding:** Acknowledging the importance of advancing genomic research and precision health initiatives, the plan aims to increase funding for researchers and public health promotion efforts.
- Leveraging cultural assets:** Throughout the plan, strategies are designed to leverage the strengths of Armenian cultural identity, community connections, and the influential role of diaspora organizations and community institutions.

Implementing the Community Action Plan will require collaboration among diverse stakeholders, including government officials, healthcare providers, researchers, community

leaders, and diaspora groups. Potential obstacles may include political instability, resistance to policy change, funding limitations, coordination challenges, knowledge gaps inhibiting adoption of new models like telehealth, and enduring cultural barriers related to stigma. To overcome these challenges, persistent advocacy for reforms, demonstrating potential return on investment, thoughtful design of interventions incorporating community input, inclusive awareness-building with affected populations, careful consensus-building among partners, and showcasing successful pilot initiatives will be essential.

The Community Action Plan represents a comprehensive roadmap for expanding equitable access to high-quality genomic medicine and preventative healthcare services for all Armenians, particularly those residing in rural and underserved areas. By leveraging the strengths of Armenian identity and community while addressing critical needs through policy, healthcare, education, research, and training reforms, this plan aims to build a healthier future for the Armenian population.

Community Action Plan

Cover Letter

It is with great honor and humility that I present to you the Community Action Plan for improving access to genomic medicine and preventative healthcare services for our cherished Armenian population. This plan is the culmination of an extensive collaborative effort, involving diverse stakeholders from healthcare providers, researchers, government officials, community leaders, and diaspora organizations worldwide.

This community has faced numerous challenges in accessing equitable healthcare, particularly in the realm of genomic screening, counseling, and preventative services. However, you possess a rich cultural heritage, a strong global network, and a deep commitment to collective well-being that serve as powerful assets in overcoming these obstacles.

Through a comprehensive collaborative community resources and needs assessment, we have identified both the strengths that will propel the community forward and the gaps that must be addressed. Our assessment revealed a growing infrastructure for genomic research and clinical services in major cities, an increasing number of trained specialists, and the invaluable support of engaged diaspora health organizations and community institutions. However, we also uncovered restricted rural healthcare access, high out-of-pocket costs, low genetic risk awareness, stigma surrounding genetic disorders, provider shortages, and inadequate infrastructure in remote areas.

The community action plan presents a roadmap for addressing these challenges through a multifaceted approach encompassing policy reforms, healthcare system enhancements, education and awareness campaigns, workforce training expansion, and increased research funding. By advocating for changes in insurance coverage, developing public subsidies, and investing in

telehealth and mobile health infrastructure, we can improve financial accessibility and rural reach.

Additionally, the plan emphasizes constructing new rural clinics and mobile screening units, upgrading diagnostic technology and IT systems, and improving care coordination and data sharing protocols. These initiatives will strengthen healthcare delivery systems and ensure that high-quality genomic medicine services are available to all Armenians, regardless of their geographic location.

Recognizing the importance of cultural competence and community engagement, the plan includes launching genetics curriculum integration and stigma reduction campaigns, partnering with schools and faith-based institutions, and promoting screening through diverse media and community events. By fostering genetic literacy and open dialogue, we can empower the community to make informed decisions about their health and overcome cultural barriers.

Furthermore, the plan focuses on expanding workforce training programs for genetic counselors and specialists, particularly in rural areas, to address provider shortages. Increased funding for researchers and public health promotion efforts will also be pursued, as advancing genomic research and precision health initiatives is crucial for tailoring interventions to our unique genetic landscape.

Throughout the development of this plan, we have sought to leverage the strengths of Armenian cultural identity, community connections, and the influential role of diaspora organizations and community institutions. Collective resilience, unity, and unwavering commitment to preserving heritage will serve as a driving force in implementing these strategies.

While challenges may arise, such as political instability, resistance to change, funding limitations, and enduring cultural barriers, we will overcome them through persistent advocacy, inclusive community engagement, and a shared vision for a healthier future.

It is my sincere hope that this community action plan will resonate with all members of the Armenian community, inspiring us to work together in solidarity to achieve equitable access to genomic medicine and preventative healthcare services for generations to come.

Let us embrace this opportunity to build upon the strengths and address the needs of the community while forging a path towards a future where every Armenian can benefit from the remarkable advancements in genomic medicine, without barriers or limitations.

Together, we can create a healthier, more informed, and more empowered Armenian community.

Community Introduction

The action plan addresses the pressing need for improved access to genomic medicine and preventative healthcare for the Armenian population, particularly those in rural areas like Artsakh as well as in the diaspora. Developed through an extensive collaborative community needs assessment involving diverse stakeholders, this plan aims to overcome barriers such as geographic and financial limitations, inadequate rural facilities, provider shortages, low genetic risk awareness, and stigma surrounding genetic disorders.

The overarching goal is to ensure equitable access to high-quality genomic and preventative services for all Armenians. To achieve this, the plan outlines strategies encompassing policy reforms to expand insurance coverage and subsidies, healthcare system enhancements like constructing rural clinics and upgrading technology, education campaigns to foster genetic literacy and reduce stigma, workforce training expansion for genetic counselors and specialists, and increased research funding.

Through advocacy, the plan seeks to drive policy changes, improve rural access via telehealth and mobile units, and address financial barriers. It emphasizes constructing new facilities, upgrading infrastructure, and enhancing care coordination. Recognizing cultural aspects, it focuses on awareness campaigns, school curricula integration, and engaging faith-based institutions. Workforce development and research investment are also priorities.

The plan leverages Armenian community strengths, including cultural identity, global connections, and influential diaspora organizations. It represents a comprehensive roadmap for achieving health equity, overcoming challenges like political instability and funding limitations through collaborative action, and building a healthier, more empowered Armenian community with access to modern genomic medicine.

Resource Description

The community action plan recognizes the importance of leveraging existing resources within the Armenian community to support the implementation of its strategies. These resources span various domains, including financial support, advisory services, educational materials, healthcare services, and access to technology. By effectively utilizing these resources, the plan aims to maximize its impact and ensure sustainable progress towards improving access to genomic medicine and preventative healthcare services.

Financial Support:

1. Armenian diaspora organizations: Many well-established Armenian diaspora organizations, such as the Armenian Relief Society and the Armenian General Benevolent Union, have a strong track record of providing financial support for community initiatives, particularly in the areas of healthcare and education.
2. Government funding opportunities: Both the Armenian government and international organizations offer grants and funding opportunities for projects focused on public health, research, and healthcare infrastructure development.
3. Private donors and philanthropists: The Armenian community has a rich tradition of philanthropic support, and engaging with private donors and philanthropists can unlock significant financial resources for the plan's implementation.

Advisory Services:

1. Armenian healthcare professionals: The expertise of Armenian healthcare professionals, including physicians, genetic counselors, and researchers, will be invaluable in providing advisory services related to the plan's clinical and research components.

2. Community leaders and elders: Engaging with respected community leaders and elders can provide critical insights into cultural nuances, facilitate community buy-in, and ensure that the plan's strategies are culturally appropriate and resonate with the target population.
3. Diaspora advisory councils: Many Armenian diaspora organizations have established advisory councils composed of experts from various fields, including healthcare, education, and policy. These councils can offer guidance and recommendations throughout the plan's implementation.

Educational Materials:

1. Armenian academic institutions: Universities and research centers in Armenia have developed educational materials and curricula related to genetics, genomics, and preventative healthcare. These resources can be adapted and integrated into the plan's awareness campaigns and educational initiatives.
2. Existing public health campaigns: Previous public health campaigns and materials developed by government agencies, non-governmental organizations (NGOs), and community groups can serve as valuable references and building blocks for the plan's educational efforts.
3. Community-based organizations: Local organizations and support groups within the Armenian community may have developed educational resources tailored to their specific needs, which can be leveraged and disseminated more widely.

Healthcare Services and Infrastructure:

1. Urban hospitals and clinics: Major hospitals and clinics in urban centers like Yerevan can serve as hubs for genomic screening, counseling, and preventative healthcare services, providing a foundation for expanding access to rural areas.
2. Existing mobile healthcare units: Some organizations and healthcare providers in Armenia already operate mobile healthcare units that travel to remote regions. These units can be augmented and integrated into the plan's strategies for improving rural access.
3. Telehealth platforms: Leveraging existing telehealth platforms and technologies can facilitate remote consultations, genetic counseling, and follow-up care, bridging the gap between urban and rural areas.

Access to Technology:

1. Research institutes and genomics labs: Armenian research institutes and genomics labs possess advanced technologies and expertise in genetic analysis and testing, which can support the plan's efforts to expand genomic screening and research.
2. Healthcare information systems: Building upon existing healthcare information systems and electronic medical record platforms can enhance data sharing, care coordination, and decision support for genomic medicine and preventative care.
3. Community technology centers: Many Armenian communities have established technology centers or computer labs that can be utilized for educational purposes, disseminating information, and facilitating access to online resources and telehealth services.

By tapping into these existing resources within the Armenian community, the Community Action Plan can maximize its impact, leverage collective expertise and knowledge, and ensure a

more efficient and sustainable implementation process. Collaboration and strategic partnerships with organizations, institutions, and community groups that possess these resources will be crucial in achieving the plan's objectives.

Network

The Community Action Plan relies on a robust network of interconnected stakeholders and resources to achieve its objectives. This network encompasses government agencies, academic institutions, healthcare providers, community groups, technology partners, and funding sources.

At the center are the Armenian communities themselves, whose needs shape the strategies. Government bodies provide policy guidance, funding, and oversight. Academic institutions advance research, develop curricula, and train the workforce. Healthcare providers deliver genomic screening, counseling, and preventative care services. Community groups facilitate outreach, education, and cultural insights. Technology partners enable telehealth, IT systems, and rural access. Funding sources, including government grants, private donors, and philanthropists, provide financial resources.

The relationships within this network are symbiotic, with each entity contributing unique resources and expertise while benefiting from collective knowledge and support. Effective collaboration and coordination among stakeholders are crucial for successful implementation and improving access to genomic medicine and preventative healthcare for Armenians.

Action Plan

I. Introduction

The aim of this community needs assessment is to identify strengths, resources, and priority health needs for the Armenian population, with a focus on those from the Artsakh region. The scope includes Armenians living in Armenia, Artsakh, and the diaspora. The community components assessed were access to genomic screening and counseling, education on genetic risks, and access to preventative services and treatment. Data was gathered from the ArmGenia genomic analysis study on 49 Armenians, interviews with two Armenian geneticists involved in the research, and discussions with three diaspora healthcare providers. A SWOT analysis was utilized to categorize strengths, weaknesses, opportunities, and threats.

I. Plan for the Community Needs Assessment

A diverse community team has been identified consisting of: healthcare providers from clinics, hospitals, and NGOs serving Armenians in Armenia, Artsakh, and diaspora communities, researchers at genetic testing labs and academic institutions studying Armenian genetics, government health officials that oversee policies and public health programs, and community organizers that engage with Armenian patients and families. The key stakeholder engaged is the executive director of a nonprofit that provides medical services and advocacy for genocide survivors. They have deep insight into the healthcare access challenges and stigma facing Armenians.

The scope includes all Armenians globally with a focus on those living in Artsakh and the rest of Armenia, given the limited accessibility to genomic screening and related healthcare services in these regions. While the assessment is focused on Armenians, exploring potential

overlap with the needs of other minority groups in Armenia with identified genetic risks could be considered in future efforts.

The two key community sectors that will be assessed are healthcare systems including hospitals, clinics, labs, and public health agencies that provide genetic screening, counseling, and disease treatment, as well as research institutions including universities and genomics companies analyzing Armenian genetics and disease predispositions.

The three components of these sectors that will be assessed are as follows: access to genomic screening and counseling i.e. looking at what geographic, financial, cultural and awareness barriers exist as well as how access to these services can be expanded through policy change, strengthened systems, and education; genetic education and stigma, i.e. taking stock of what materials, campaigns, and curricula currently exist on Armenian genetic risks, what messaging approaches would resonate with different age groups, and how genetic awareness can be better integrated into schools, media, churches, and community spaces; and finally prevention and treatment services, i.e. what types of screenings, tests, counseling, and treatments are currently accessible and covered by healthcare policies, what policy and healthcare system changes are needed to make these services more available and affordable, and how telehealth can be leveraged to improve access in remote regions.

Potential sites to visit during the assessment include Armenian diaspora clinics, central hospitals, genomics labs at research universities, and community centers in Los Angeles.

Existing data sources will include health records, genomic databases, interviews with providers and patients, surveys to assess community attitudes and needs, and previous needs assessments or public health reports on Armenians.

In terms of policy, the assessment will focus on identifying ways to increase access to genomic screening and counseling through expanded healthcare coverage policies and reforms. This includes analysis of how policies could drive more research funding into furthering knowledge of Armenian genetics.

Regarding healthcare systems, systemic barriers to be examined include the limited facilities for genetic testing and screening in rural clinics, lack of specialists in modern genomic medicine, outdated technology and inconsistent data systems. Strengthening the overall capacity of Armenia's healthcare system for delivering genomic medicine will be key.

The assessment will explore how stigma around genetic disorders leads to fear of screening and inhibits open dialogue. Improving genetic literacy and community conversations around health can help transform these attitudes and empower patients. Economic limitations that reduce access to screening and preventative care will also be examined, with a focus on advocacy for subsidies and financial assistance.

This three-pronged approach to examining policy, systems, and environment will enable a comprehensive assessment of strengths, needs and solutions to inform an effective community action plan.

II. Conduct the Needs and Resources Assessment

A comprehensive needs and resources assessment was conducted using various methods to gather data from diverse stakeholders. In-depth interviews were reviewed from 20 patients in Los Angeles and families in Yerevan and Artsakh on their experiences with genomic screening access and utilization. Listening sessions from 5 diaspora community centers in Los Angeles provided perspectives from the Armenian diaspora. Reports from Armenia's Ministry of Health offered utilization rates for genetic testing and disease prevalence data. Research data from the

ArmGenia genome sequencing project gave scientific insights. Data from site visits to a genomics lab and village clinics allowed for observation and conversations about needs and challenges. Census data provided population statistics, economic conditions, and health indicators. Photographs and maps illustrated geographic proximity to healthcare facilities. Reports of discussions with genetic counselors revealed needs they see patients facing.

This assessment illuminated strengths like Armenia's rich culture and identity, health infrastructure in cities, growing genomic research capacity, increasing specialists, active diaspora health organizations, and the role of religious community institutions. Weaknesses and priority needs found include restricted rural healthcare access, high out-of-pocket costs, low genetic risk awareness, stigma against those with disorders, lack of modern village infrastructure, and specialist shortages outside cities.

Opportunities exist to leverage Armenian identity for health promotion, expand telehealth and mobile services, integrate genetic education into schools and communities, train more providers, and increase government research/testing funding. Threats that must be addressed encompass political instability, provider emigration, inadequate investment, and people avoiding screening from stigma or costs. The assessment makes clear the strengths to leverage and the challenges requiring policy reforms, healthcare system improvements, and environmental changes to enable equitable genomic healthcare access for all Armenians.

III. Review & Analyze the Data

The community needs assessment gathered a robust dataset with both qualitative and quantitative information from multiple stakeholder groups including patients, providers, researchers, government entities, and community members. Sources ranged from interviews, listening sessions, genomic studies, site visits, surveys, reports, and more.

Looking holistically at all the data collected reveals the Armenian community has important healthcare resources to build upon. These include a strong sense of cultural identity and connections globally, health infrastructure concentrated in larger urban areas, growing genomic research programs and capacity, increasing numbers of trained providers and specialists, highly engaged diaspora health organizations, and influential community institutions such as churches that can aid outreach efforts.

However, several priority needs emerged clearly across the diverse sources of assessment data. These encompass the lack of healthcare access in rural provinces and Artsakh, high costs that prohibit access to critical screening and preventative services, a low level of awareness of Armenian genetic risks among the general public, stigma associated with genetic disorders that prevents open conversations and screening, shortages of providers adequately trained in genomic medicine outside Armenia's major cities, and inadequate modern medical lab and transportation infrastructure in villages.

Importantly, the comprehensive dataset offers clues about high potential strategies for change in healthcare policy, delivery systems, and environment. Policy changes could aim to expand health coverage and access regarding genomic screening and counseling through mechanisms like public subsidies to lower costs and telehealth infrastructure expansion. Healthcare systems require further investment to strengthen workforce training in modern genomics, upgrade outdated facilities and technologies, improve fragmented data systems, and develop new labs and mobile services to extend reach to remote areas. Promoting genetics education and open dialogue surrounding disorders and risks can help address stigma-related barriers and empower community members to pursue informed screening and prevention.

Finally, leveraging cultural identity and partnerships with religious institutions and diaspora organizations would allow health promotion efforts to resonate more deeply.

Community Needs Assessment Research Report

IV. Summarizing the Needs Assessment Data

The comprehensive community needs assessment will engage over 100 diverse stakeholders through data from interviews, focus groups, surveys, site visits, record reviews, and health data analysis. The assessment will take into account information from patients, providers, researchers, government officials, community organizations, and residents. A multifaceted narrative will emerge revealing Armenian community strengths to leverage alongside pressing needs requiring urgent policy reforms, healthcare system enhancements, education expansion, research growth, and dedicated advocacy to realize equitable genomic screening and preventative service access.

Armenia possesses a strong cultural identity and close-knit community connections between the homeland and global diaspora. Armenians worldwide share deep ethnic pride and heritage that promotes unity and collaboration for health promotion. Larger Armenian cities have growing health infrastructure like hospitals, clinics, research universities, and modern genomic labs, though still requiring improvement. Medical education partnerships are developing more trained genetic counselors and specialists. Research initiatives like the ArmGenia genome sequencing project are advancing understanding of Armenian genetic risks and predispositions. Armenian diaspora organizations globally actively promote health education, dialogue, and advocacy. Community institutions like churches frequented by many Armenians provide opportunity for expanded outreach and service delivery, especially in rural areas.

However, several priority gaps emerged requiring policy reforms, systems upgrades, education, research growth, and advocacy to achieve equitable access. Rural Armenians face severe geographic and financial barriers accessing genomic services and follow-up care due to limited rural clinic capacity, high costs, long travel distances, and specialist shortages. High out-of-pocket costs make critical genetic screenings, counseling, and treatments unaffordable, delaying prevention and early intervention. Across educational, media, community, and clinical settings there is limited discussion of Armenian genetic risks, contributing to low awareness and screening delays. Stigma associated with genetic disorders inhibits open dialogue and service pursuit. Outside major cities, shortages of trained genetic counselors and specialists reduce access. Rural clinics often lack updated diagnostics technology, IT systems, transportation, and care coordination to provide modern genomic screening and care.

Targeted efforts across policy, healthcare delivery, research, workforce training, public awareness, and funding are essential to address these gaps through impactful systems improvement. Needed policy reforms include expanding insurance coverage for genomic screening and counseling, developing public subsidies to lower out-of-pocket costs, increasing investment in telehealth and mobile health infrastructure and reimbursement, and boosting research funding for genomics and precision health. Necessary healthcare system enhancements encompass expanding specialist training programs and residencies, upgrading diagnostic technology and IT systems, constructing new rural clinics and lab facilities, developing mobile screening units, and improving care coordination and health data sharing. Vital community education and engagement strategies involve creating genetic risk awareness and stigma reduction campaigns, integrating genomics into school health curricula, promoting screening

through diverse media, events, and trusted institutions, funding patient navigation and peer support programs, and hosting community genetics dialogues addressing cultural barriers.

Armenians have strong cultural assets, growing urban health systems, emerging research, and engaged community organizations to leverage. But substantial reforms are urgently needed to actualize equitable genomic healthcare access and overcome barriers like geographic and financial access, inadequate infrastructure, stigma, workforce limitations, and low risk awareness. Through collaborative action tailored to community strengths and needs, transformative systems improvements can be achieved to extend quality genomic services to all Armenians.

V. Preliminary Community Action Plan

The needs assessment illuminated numerous strengths and assets of the Armenian community worldwide to serve as a foundation for improving access to genomic medicine. These assets include the strong cultural identity and connections linking Armenians globally, an emerging infrastructure for genomic research and clinical services in major cities like Yerevan, a growing number of trained specialists, engaged diaspora health organizations active in promoting education and advocacy, and influential community institutions like churches that can assist in outreach efforts. However, several priority needs requiring attention through advocacy and reform initiatives emerged across healthcare policy, delivery systems, awareness-building, research, and workforce training spheres to achieve health equity.

The most urgent needs are expanding insurance coverage and financial assistance to ensure genomic screening affordability, enhancing rural access through improved transportation and telehealth, reducing stigma by integrating genetic health education across schools and community institutions, training more specialists in modern genomic medicine especially in rural

areas, constructing new clinics and mobile care units in remote areas, upgrading lab equipment and health IT systems for care coordination, and increasing funding for precision health research and public health promotion efforts.

Potential high-impact strategies to address these needs include advocating for policy changes to insurance coverage, testing subsidies, and rural telehealth investments; forming academic and clinical partnerships to expand workforce training programs; launching genetics curriculum integration and stigma reduction campaigns; constructing rural clinics, diagnostic labs, and mobile screening units; developing patient navigator roles and virtual care tools; increasing funding for researchers and community organizations; and enhancing diagnosis, treatment, and data exchange protocols.

Based on these findings, a preliminary community action plan would engage diverse stakeholders like government officials, researchers, providers, community leaders, and diaspora groups. It would prioritize reducing financial barriers and geographic access limitations through policy reforms. Partnering with schools and faith-based institutions to promote genetic literacy and screening would be a focus. Workforce training expansion would aim to increase qualified specialists in both urban and rural areas. Funding commitments would need to be obtained to construct new facilities, upgrade technology, and support research. Armenian cultural identity would be leveraged in public awareness messaging. Innovative care delivery models like mobile clinics could be piloted.

Potential obstacles that may hinder progress include political instability, resistance to policy change, funding limitations, coordination challenges across the many stakeholders involved, knowledge gaps inhibiting adoption of new models like telehealth, and enduring cultural barriers related to stigma. However, persistently advocating for reforms, demonstrating

potential return on investment, thoughtful design of interventions incorporating community input, inclusive awareness-building with affected populations, careful consensus-building among partners, and showcasing successful pilot initiatives could help overcome these barriers.

This preliminary roadmap identifies priority needs, strategies, stakeholders, and goals to ultimately expand equitable access to high-quality genomic medicine for all Armenians. The strengths of Armenian identity and community can empower collaborative action on policy, healthcare, education, research, and training reforms that will build a healthier future.

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