
## Application Code

9920

## Application Name

Addressing healthcare disparities for Arab immigrants and refugees in the U.S.

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# Galileo: Addressing healthcare disparities for Arab immigrants and refugees in the U.S.

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## BACKGROUND

35% of Arabic speaking patients in the US avoid seeking care due to language barriers. Arab immigrants and refugees in the United states faced numerous challenges in accessing quality healthcare including languages barriers, cultural differences, financial constraints, and lack of trust in the healthcare system. These disparities result in the delayed care misdiagnosis and poor health outcome .

**As part of Duke university's Galileo project this research seeks to :**

- **Assess the major obstacles Arab immigrant and refugees faces and receiving healthcare**
- **develop an ideal healthcare model that integrates cultural competence, with ability, and accessibility**

### Purpose:

The Galileo project is a multidisciplinary research initiative exploring the creation of an ideal healthcare system by analyzing gaps in the current model and proposing solutions for underserved populations .
This study is one of 30 research initiatives under Galileo each addressing disparities across different populations (example Hispanic, black, immigrants, providers, nurses, etc.)
Exploring how the US healthcare system can be redesigned to better serve Arab immigrants and refugees with a focus on interoperability, policy reform, and culturally competent care

## METHODS

**Study design** :qualitative research using structures interviews and surveys
Participants : 10 Arab immigrants and refugees residing in the US for 5+ years and five healthcare professionals working with immigrant populations
**Data collection** :
interviews focused on healthcare access barriers and perception of the US healthcare system
**Data analysis** :thematic analysis to identify common trends and challenges

## RESULTS

Our findings emphasize **the structural gaps and opportunities** in designing a health system that effectively serves **Arab immigrants and refugees**, focusing on **accessibility, cultural responsiveness, and system adaptability**.

### 1. Structural Barriers in Healthcare Access

•Analysis of existing health systems reveals **limited accessibility** for Arab immigrant and refugee populations due to **language barriers, legal status concerns, and cultural stigmas around healthcare-seeking behavior**.
•**Insurance ineligibility and lack of culturally competent providers** further restrict healthcare utilization, increasing **reliance on emergency services** rather than **preventative care**.
•Community-based data collection highlights a **disconnect between public health initiatives and the actual needs** of Arab refugees, particularly in **mental health services and chronic disease management**.

### 2. Interoperability & Health Data Gaps

•The lack of **cross-border and cross-institutional health data exchange** leaves **displaced populations without a continuous medical record**, leading to **gaps in treatment continuity and fragmented care**.
•Stakeholder discussions indicate that **integrating digital health records with refugee resettlement programs** can significantly **improve long-term health outcomes**.
•Proposed solutions focus on **patient-held digital records**, ensuring that individuals can **carry their health history across borders and between care settings**.

### 3. Stakeholder Consensus on Culturally Responsive Care

•**Healthcare providers, policymakers, and community leaders** identified the **need for culturally competent care models**, including:

- **Training providers** in Arab cultural norms, linguistic preferences, and health beliefs.
- **Expanding telehealth and digital health interventions** to reach underserved populations.
- **Community-driven health navigation programs** to build trust and bridge institutional barriers.

•There was **broad consensus on policy shifts** toward **flexible, community-embedded health services** that empower local clinics and NGOs in refugee health initiatives.

### 4. Future-Proofing Through Policy & Digital Innovation

•The results highlight a **critical need for adaptable, technology-driven solutions**, including:

- **Mobile health (mHealth) applications** tailored for Arab immigrants and refugees, offering **real-time language translation, digital health records, and direct access to culturally competent providers**.
- **Legal frameworks for inclusive healthcare access**, reducing barriers related to immigration status.
- **Hybrid models combining in-person and digital care**, ensuring equitable access across urban and rural refugee populations.

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## FUTURE DIRECTIONS

To address the barriers Arab immigrants and refugees face in the U.S. healthcare system, health informatics solutions can enhance access, communication, and care coordination. The following informatics-driven recommendations align with the Galileo Project's goal of creating an equitable healthcare system:

### 1. Implement Multilingual EHR Systems with Arabic Language Support

- Enhance Electronic Health Records (EHRs) to include Arabic-language interfaces for patients and providers.
- Integrate real-time translation tools within EHRs to assist non-Arabic-speaking providers.
- Enable structured data entry for cultural preferences and language needs to personalize care.

### 2. Develop AI-Powered Chatbots & Virtual Assistants for Patient Education

Create Arabic-speaking AI chatbots to assist with appointment scheduling, medication adherence, and health literacy.

- Deploy telehealth platforms with real-time Arabic interpretation to improve access to virtual care

. 
- Utilize AI-driven symptom checkers to guide patients in seeking appropriate care.

### 3. Expand Telehealth Access for Rural & Underserved Arab Communities

- Offer telemedicine services tailored for refugees and immigrants who face transportation or financial barriers.
- Ensure telehealth platforms comply with HIPAA and cultural competency guidelines.
- Partner with community health centers to provide affordable telehealth options

### .4. Implement Smart Alerts & Clinical Decision Support (CDS) for Culturally Sensitive Care

- Integrate CDS tools in EHRs to alert providers about cultural preferences, fasting during Ramadan, and gender-specific care needs.
- Use predictive analytics to identify high-risk patients and proactively engage them in preventive care.
- Incorporate social determinants of health (SDOH) data to customize treatment plans.

### 5. Enhance Data Collection & Interoperability for Health Equity Research

- Develop national and regional health databases to track health disparities in Arab immigrant communities.
- Standardize interoperability frameworks to allow cross-institutional data sharing for refugee health records.
- Use data analytics to inform policy decisions and resource allocation for underserved populations.

## REFERENCES

**[1]** Kaiser Family Foundation. (2022). *Health insurance coverage and affordability in the U.S.*
**[2]** CDC. (2021). *Prescription drug affordability and rationing among U.S. adults.* https://www.dol.gov/sites/dolgov/files/ebsa/laws-and-regulations/laws/no-surprises-act/2024-report-to-congress-prescription-drug-spending.pdf
**[3]** Consumer Financial Protection Bureau. (2022). *Medical debt and financial hardship in America.*
**[4]** National Health Interview Survey. (2023). *Gaps in insurance coverage and Medicaid acceptance.*
**[5]** Migration Policy Institute. (2015). *Iraqi refugee resettlement in the U.S.*
**[6]** Office of Refugee Resettlement. (2022). *Healthcare access for resettled refugees.*
**[7]** American Public Health Association. (2023). *Access to healthcare for immigrant populations*
**[8]** World Health Organization. (2022). *Preventive healthcare utilization in the Middle East.*
**[9]** Health Affairs. (2021). *The impact of language barriers on healthcare outcomes.*
**[10]** American Psychological Association. (2022). *Cultural considerations in mental health treatment.*
**[11]** Abuelezem, M., Elshahat, S., & Moffat, S. M. (2019). *Mental health care access among Arab immigrants in the United States.* Community Mental Health Journal, 55(3), 351-360. Retrieved from
**[12]** Kishawi, D., & Hilado, A. (2021). *How physicians can support health of Arab immigrants, refugees.* American Medical Association. Retrieved from
**[13]** Migration Policy Institute. (2021). *Immigrant health-care workers in the United States.* Retrieved from
**[14]** Al-Rousan, T., & Knipscheer, J. (2022). *Health services access, utilization, and barriers for Arabic-speaking refugees in the United States: A systematic review.* BMC Health Services Research, 22(1), 1-14. Retrieved from