



Systematic review of former unaccompanied immigrant minors' access to healthcare services in the United States

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Abstract

Aim Former unaccompanied immigrant minors (UMs) now living in the USA are a uniquely vulnerable population. The US Office of Refugee Resettlement shelters provide health services, but most are discontinued once UMs leave the shelters. A systematic review was therefore designed to quantify access to medical, mental, and dental healthcare services by former UMs living in the USA.

Subject and methods The study protocol was registered with PROSPERO. A search was made in Ovid MEDLINE, Embase, Scopus, and Academic Search Complete in June 2020. Full-text review, data extraction, and data analysis were completed by all authors.

Results Searches returned a total of 2646 studies, of which 15 met all eligibility criteria. There was an overlap in the services investigated in the studies — 13 assessed mental health, ten assessed medical, and four included dental care. Sample sizes ranged from one to 4809, and there was a wide range of study designs. Some studies included multiple locations. Nine studies demonstrated success in community-based clinics or programs; one in a hospital, four in schools, three in group living settings, and one in U.S. Customs Border Patrol (CBP) custody. Three studies explored access to services post-release from shelters.

Conclusions Healthcare programs at shelters, schools, and in the community have provided some screening and diagnosis of medical, mental health, and dental conditions for UMs, but multiple financial and cultural barriers make ongoing treatment difficult to access. Long-term studies following UMs in shelters and post-release through adulthood are needed to help create new, or modify existing, programs, to adequately support UMs now living in the USA.

Keywords Access to care · Unaccompanied minors · Immigrant healthcare · Immigrant youth

Background

Over 400,000 asylum-seeking unaccompanied minors (UMs) have crossed the US–Mexico border since 2003, and rates of

UMs fleeing to the US have been rising since, with 76,020 UMs apprehended at the US–Mexico border in 2019 (US CBP 2021). Although the US government classifies minors who cross the border without their parents as unaccompanied alien children (UAC), due to the negative and demeaning connotation of the terminology, UAC are referred to commonly and in this paper as UMs. UMs are uniquely vulnerable and different from unaccompanied refugee minors (URMs), because URMs come to the USA with legal status. UMs, however, are seeking asylum and until it is granted, they do not have legal status. The majority of UMs in the USA migrated from Guatemala, El Salvador, and Honduras, a region referred to as the “Northern Triangle” of Central America (Kandel 2019, Mossaad 2018). UMs from the Northern Triangle are a unique demographic of migrants entering the USA, and one for whom treatment, care, and long-term outcomes are largely unknown. Once UMs cross the US–Mexico border and enter the USA, they are often apprehended and detained by CBP for up to 72 h and then transferred to US Office of Refugee Resettlement (ORR) shelters located throughout the US.

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These shelters provide food, clothing, education, medical services, and case managers who work towards unification with a vetted caregiver who can act as a sponsor during immigration proceedings (Roth and Grace, 2015). The average stay for a UM in an ORR shelter in 2020 was 152 days, dependent upon the time needed to find a vetted caregiver. This statistic was up from the average of 66 days in 2019 (ORR 2021, Roth and Grace, 2015).

While ORR shelters are mandated to provide initial medical, dental, and mental health screenings and care, most services are discontinued once UMs leave the shelters, and there is no process in place to ensure follow-up. Access to healthcare services for former UMs is difficult post-release because they are often uninsured and living with under-resourced families who have limited access to services. With the upward trend in migration of UMs, the USA should strive to better understand the needs of contemporary migrants such as families and children seeking refuge from violence and poverty (Budiman 2020).

UMs often hide in the shadows due to a variety of legal and political fears (Hasson III et al., 2018). This is in part because the USA lacks universal immigration laws, policies, and agreements. Established laws and policies often conflict on the best treatment for UMs from a legal perspective (Kandel 2019). The majority of UMs arriving in the USA present with claims for asylum due to substantial fears of violence in their home countries (Sawyer and Márquez, 2017). The effects of trauma, extreme poverty, and discrimination pre-migration, during migration, and post-migration are likely to have long-term impacts on youth who arrived unaccompanied in the USA (Teitel 2016). While very few studies on the physical and mental health of UMs have been published in the USA, UMs are at high risk for developing physical and mental health conditions due to poor social determinants of health such as economic stability, education, healthcare, neighborhood/environment, and social context, both before, during, and after migration (Cardoso 2018, Chang 2019).

The precarious legal situations in which UMs live, in conjunction with past and current traumatic experiences, are likely to continue to impact the lives of these vulnerable youth. The shortage of bilingual, bicultural, and competent professionals, the lack of insurance coverage, and fear of exposure due to immigration status likely contribute to inequities in all forms of healthcare for UMs (Bishop and Ramirez, 2014). However, specific rates of healthcare access and utilization among current or former UMs are unknown. This systematic review aims to analyze literature on UMs in the USA to elucidate the extent to which UMs access and utilize health services.

Methods

This systematic review was conducted in accordance with guidelines set by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. The study protocol was registered with PROSPERO. PROSPERO is an international database of prospectively registered systematic reviews in healthcare, social care, welfare, and public health (PROSPERO 2021). From the original PROSPERO submission, only the title was changed. The original submission to PROSPERO had the title “Systematic Review of Utilization of and Access to Healthcare Services by Former Unaccompanied Minors”.

In June 2020, a medical librarian conducted a systematic review of the electronic databases Ovid MEDLINE, Embase, Scopus, and Academic Search Complete. The search was limited to those studies published in the USA. Language restrictions included English-only articles, and two authors were contacted for additional information and full-text articles. Medical subject headings (MeSH) terms and keywords used, as well as the search strategies performed, are shown in Table 1. The Ovid MEDLINE strategy was then translated to Embase, Scopus, and Academic Search Complete, resulting in a total of 1555 de-duplicated results. Articles that met search criteria were uploaded into the Rayyan database for blinding and organizational purposes. Screening of the articles was completed by three authors based on information provided in the abstracts. A minimum of two researchers reviewed each abstract independently. Selection of relevant articles was based on the information obtained from the abstracts and was agreed upon in discussion. If the abstract was not available, the full text was examined. In the case of discrepancies between two researchers, the full-text original paper was reviewed and read by all three researchers, and agreement reached after a group discussion.

After the initial screening, 47 articles were reviewed by SM, NH, and AG. One article was excluded since the full text was in a foreign language. Seventeen articles were excluded

Table 1 Search strategy

Ovid MEDLINE

1. Refugees/
2. “Emigrants and immigrants”/ or “undocumented immigrants”/
3. “Transients and migrants”/ or “Emigration and immigration”/
4. (refugee* or emigrant* or immigrant* or migrant* or transient* or asylum*).ti,ab,kw.
5. 1 or 2 or 3 or 4
6. (unaccompanied* or “un-accompanied”).ti,ab,kw.
7. 5 and 6

Note: “ti.ab.kw” searches for terms in the title, abstract or keyword

due to reporting on the wrong intervention, as the studies did not directly address utilization of healthcare services by UMs. One article was eliminated because it contained the wrong outcome by studying a health-related topic without addressing access to healthcare. Three articles were excluded due to being the wrong publication types, and 11 others since they studied youth who were not UMs living in the USA. Following review and discussion, 15 scholarly articles were finally included in this review and reviewed by all authors. Figure 1 delineates the PRISMA flow chart, adapted from Moher et al. (Moher et al., 2009).

Results

Fifteen studies met inclusion criteria for this review. Sample sizes ranged from 1 to 4809, and the study design included program evaluations, quantitative studies, qualitative studies, longitudinal mixed-method studies, outcome evaluations, auto-ethnographic interviews, and case studies. Table 2 describes the key characteristics and results of the publications in alphabetical order by the first author's last name.

Thirteen studies directly evaluated healthcare access by adolescents or young adults. A total of 5586 immigrant youths were assessed or screened for medical, dental, or mental healthcare conditions. Of these, 5200 participants were identified as UMs or former UMs originating from Mexico or Central America. Six studies differentiated participants by country of origin (total $n = 178$), with UMs being specifically from Honduras ($n = 64$) 36%, El Salvador ($n = 51$) 29%,

Guatemala ($n = 55$) 31%, and Mexico ($n = 8$) 4%. Seven studies classified participants as being from “Mexico or Central America.” Additionally, six studies identified the gender of participants ($n = 209$) in which males accounted for 65%. Three studies utilized health provider or key informant (lawyers, social workers, educational professionals, community advocates, child sponsors, and foster parents) perspectives.

The 15 studies included a wide range of services in a variety of locations. Some included multiple services and/or multiple locations. Nine studies (60%) were in a community-based clinic or program, one (6.7%) was in a hospital, four (26.7%) were set in schools, three (20%) were in group living settings such as shelters or long-term foster care, and one (6.7%) was set in a CBP setting. Three studies specifically explored access to care services among UMs post-release from shelters or foster care.

There was overlap in the services assessed in each of the studies. Specifically, 13 assessed mental health care services, ten assessed medical care, and four included dental care. None of the studies addressed use of traditional practitioners or cultural healers.

Discussion

This systematic review on UMs' access to healthcare demonstrates limited use of medical, dental, and mental health services by this vulnerable population. Barriers to accessing care are substantial and common. Qualitative studies, with data

Fig. 1 PRISMA flow diagram

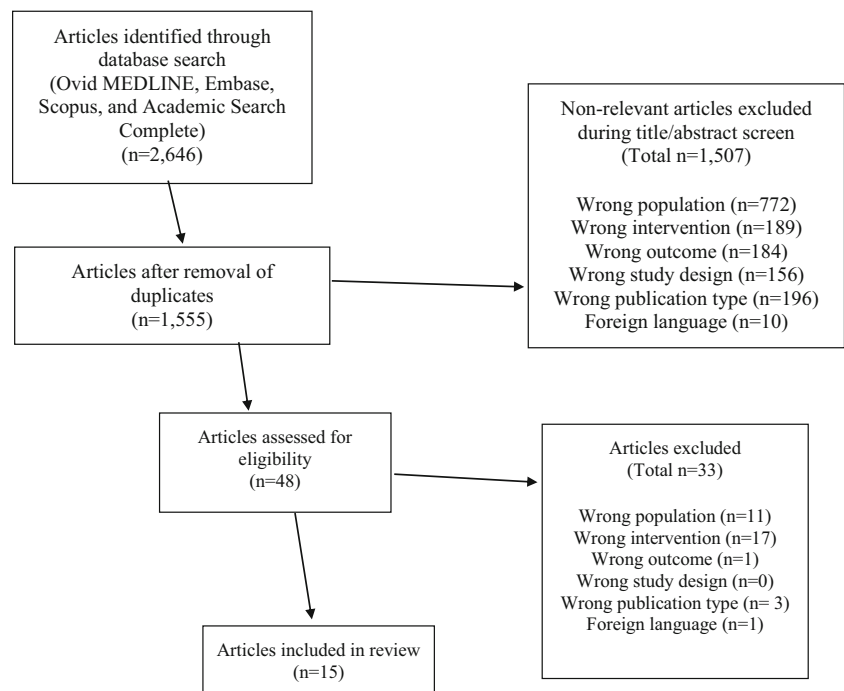


Table 2 Summary of included studies

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Acuna and Escudero 2015	67. Majority from Guatemala, Honduras, and El Salvador	School-based mental healthcare	Program evaluation	30% of UMs met criteria for moderate to severe post-traumatic stress disorder (PTSD). All diagnosed with PTSD were offered ten visits in a school-based early-intervention program. Challenges with providing therapy: parental/guardian fear of signing UM consent forms, fears that school was working with the government. One UM accessed mental health evaluation via this research study. He was diagnosed with major depression and agoraphobia. Student received minimal school-based counseling. Ongoing mental health therapy was not possible due to cost barriers. Subject had significant legal worries. On follow-up telephone interview, the boy described feeling better and using his church to help him cope.	Data not published in peer-reviewed journal	Low	UMs accessed mental health services for screening and possibly for treatment in this school-based clinic. Challenges made ongoing therapy difficult.	Note: 4-6% of general US youth population meet criteria for PTSD.
Baily et al. 2016	2. El Salvador	School-based mental healthcare	Case study; auto-ethnographic interviews	One UM accessed mental health evaluation via this research study. He was diagnosed with major depression and agoraphobia. Student received minimal school-based counseling. Ongoing mental health therapy was not possible due to cost barriers. Subject had significant legal worries. On follow-up telephone interview, the boy described feeling better and using his church to help him cope.	Case study of one child only	Low	UM accessed mental health services in school-based research study for screening and treatment, but ongoing treatment was too costly.	Although UM was given list of Spanish-speaking community mental health providers, cost was the barrier.
Crea et al. 2018	79. United States	Medical care, dental care, mental healthcare in a UM long-term foster care program (LTFC)	Qualitative study	22 focus groups conducted with foster parents and professionals. Greatest needs for UMs include medical, mental health, and dental care, foster care placements, and housing.	Study conducted with those working with UMs, but not UMs themselves. Specific to children in long-term foster care.	Moderate, due to recall and reporting bias.	Access to baseline services for UMs living in LTFC was required, but health visits and tests often required difficult-to-obtain prior approvals, authorizations, and referrals. All children in	Other needs included help with connections, culture, independent living skills, education, legal, language, and safety.

Table 2 (continued)

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Descilo et al. 2010	Study 2: 40. UMs from Mexico and Central America	Mental healthcare (community--based mental health screening and intervention)	Program evaluation	Study 2: Subjects were assessed using Child Report of Post-traumatic Symptoms (CROPS), Depression Self-Rating Scale (DSRS), Self-Concept Scale (SC), and Subjective Units of Distress Scale (SUDS). Subjects received "traumatic incident reduction" (TIR) treatment. Participants reported average of eight troubling trauma/loss events in their history. All youth met criteria for PTSD and started TIR counseling. TIR treatment was average of 7.5 h per subject. 31 participants (10 girls) completed treatment.	Absence of comparison groups, non-blinded assessment, and lack of follow-up assessment. No formal evaluation of treatment adherence.	Low	LTFC were mandated to attend therapy once weekly while enrolled in the program. 31 completed the full treatment. Almost all UMs showed post-treatment PTSD scores below the clinical range. The findings indicate that TIR was efficacious for UMs with PTSD and sub-PTSD symptoms. Mental healthcare programs can be successful when reaching UMs.	In TIR, the client re-lives a traumatic memory and discloses the experience to the therapist, who listens without interpreting or evaluating it. This is repeated, in a single untimed session, until no further memory-related distress remains.
Evans et al. 2018	30. 3 from Honduras, 1 from El Salvador, rest not from Northern Triangle	Medical care, mental healthcare, dental insurance access in the community; post-release from a foster care program	Outcome evaluation	Post-release analysis of subjects (data gathered about preceding year): $n=0$ (0%) were unable to see a doctor when needed $n=12$ (40%) of participants were insured $n=2$ (6.7%) accessed prenatal care $n=11$ (36.7%) saw a doctor, nurse, or dentist	Low response rate (24.6%). Assumed youth from Central America did not arrive as refugees. Authors did not differentiate between URM and UMs.	Moderate risk due to selection bias.	Subjects were uninsured at higher rates than youth in domestic foster care. No participants reported being unable to see a doctor when necessary.	Youth from the URM programs sought help through counseling (26.7%) at more than double the rate of youth from domestic foster care (11.3%) ($p < .001$).

Table 2 (continued)

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Jami 2017	100. Honduras (44%), El Salvador (35%), Mexico (3%), Guatemala (18%)	Medical care, mental healthcare in community; post-release from shelters	Longitudinal (mixed method) study	$n=8$ (26.7%) received psychological/-counseling services $n=2$ (6.7%) accessed medication for psychological diagnosis. First survey at 14 days post-release ($n=100$): 18% with mental health concerns, 4% accessed mental healthcare, 23% accessed medical care 3 months ($n=96$): 17% with mental health concerns, 7% accessed mental healthcare, 48% accessed medical care 6 months ($n=76$): 18% with mental health concerns, 10% accessed mental healthcare, 58% accessed medical care 9 months ($n=76$): 18% with mental health concerns, 13% accessed mental healthcare 12 months ($n=76$): 14% with mental health concerns, 13% accessed mental healthcare. Subject was diagnosed with post-traumatic stress disorder and received psychotherapy.	Sponsor/adult interviewed (not UJM). People who stayed in study may have had more interest to find resources. Enrollment in a study on access may have impacted their accessing of services.	Moderate risk due to attrition bias and recall bias.	Study conducted in conjunction with Lutheran Immigration and Refugee Services (LIRS) Children's Services. As time progressed, more sponsors took over medical care for the UJM. The one area without improvement in access was mental health; however, the prevalence of mental health issues dropped from 18% at the 9-month visit to 14% at the 12-month visit.	
Katsounari 2014	1. Honduras	Mental healthcare in shelter	Case study	Case study of 1 child. PTSD screen was not validated for Spanish (subject's first language).		Low	Relational psychodynamic treatment was successful (improvement in function) in helping a UM who experienced severe trauma.	
Linton et al. 2018	1. Guatemala	Medical care, mental healthcare in	Summative case study	An attorney referred subject to Terra Firma for medical care. He accessed medical care as	Case study of 1 child in which the adolescent had access to a pro-bono attorney.	Low	Subject received medical and mental healthcare. The case study highlights need for	Terra Firma is a medical home for children that also provides legal support and aims to aid

Table 2 (continued)

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Nyangoma et al. 2014	20. El Salvador, Honduras, and Guatemala	community clinic Medical care, screenings, and vaccines in a shelter. Emergency care, hospital care in community hospital.	Program evaluation	well as group and individual psychotherapy. The mental health information became essential in the UM's immigration proceedings. Following the affidavits written by his pediatrician and psychiatrist, as well as testimony from his psychiatrist, the UM was granted asylum. In July 2014, 20 minors (2 clusters) were reported to have respiratory illnesses. First cluster included 2 bacteremic with <i>Streptococcus pneumoniae</i> , one lab-confirmed influenza B case, and 1 PCR-confirmed influenza A. Cluster 2 diagnoses included lab-confirmed pneumococcal pneumonia with (3 cases) and without lab-confirmed influenza (4 cases), influenza pneumonia (1 case), and pneumonia with no identified etiology (8 cases). 5 patients	No comparison group. Sample size may not be representative of all UMs.	Low	integrated and coordinated services for UMs with healthcare providers, mental health providers, and the legal system.	UMs with adaption and acculturation. Outbreaks prompted ORR facilitates to provide additional vaccinations (flu and PCV13) for youth in their custody. In Central American countries, flu vaccines are recommended for school-aged children, but not widely provided. Study emphasizes importance of providing routine and specific vaccinations to UMs arriving in the US.

Table 2 (continued)

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Roth and Grace 2015	45. El Salvador, Honduras, Guatemala: <i>n</i> = 15 (PRS case/-program managers) <i>n</i> = 19 (UMs) <i>n</i> = 11 (UM sponsors/family members)	Mental healthcare in community; post-release	Comparative qualitative case study	<p>experienced septic shock requiring intensive care. No case was fatal.</p> <p>This study was based on interview data collected from case managers at 4 PRS programs and 19 UMs who received PRS. Once settled in the US post-release system, UMs experienced barriers to community integration. It was difficult for UMs to access legal, healthcare, and community resources. School enrollment was challenging as some case workers encountered resistance from schools.</p>	Small sample size; the PRS programs in this study were not representative of all PRS programs. The PRS programs in the sample were all overseen by the same voluntary agencies.	Moderate, due to reporting bias and selection bias.	Access to legal, healthcare, education, and community resources is critical for UMs in the US. The availability of resources and the environment in which they exist present a complex challenge for UMs and their case managers. PRS are generally inadequate to reach mandates. PRS address complex problems in a short time frame with limited resources.	Resources for UMs are limited and case managers often experience heavy caseloads. When referrals are received, additional barriers such as legal status, economic, social, transportation, and language barriers make accessing these resources even more difficult.
Schapiro et al. 2016	56. UM <i>n</i> = 30 33 from Guatemala, 11 from El Salvador, 6 from Honduras, and 5 from Mexico	Medical care, dental care, behavioral health services, family planning, school-based program	Quantitative program evaluation through retrospective chart review	<p>All youth were initially screened for mental health and substance misuse needs, and medical, family planning, and dental needs.</p> <p>25 youth were referred to mental health services and engaged for an average of 1.7 visits, range of 0–8 sessions over 6 months.</p>	Missing data in screening forms because some youth did not understand the questions due to language barriers, or screeners skipping questions. Data only reported from 1 site.	Moderate due to reporting bias.	There was no statistical difference in health needs and utilization. The need for legal representation should be considered for both UMs and other newcomer youth. Collaboration with schools and other agencies allows for a comprehensive program and can be	Healthcare and other systems must continue to aim for equity of services. Continued studies and advocacy for the vulnerable are needed in order to promote acculturation experiences to support resilience and positive identity formation.

Table 2 (continued)

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Schapiro et al. 2018	Total: 346. >200 UMs Central America	Medical care, dental care, mental healthcare in a newcomer youth school-based program	Quantitative, program reporting	36 youth had follow-up medical visits at the clinic and received an average of 0.6 vaccines within 6 months, ranging from 1 to 4 vaccines. Youth accessed an average of 3 medical visits, with a range of 0–9. Youth accessed dental care on average 1.7 times, with a range of 0–9 visits. 17 youth received HIV testing, 11 received gonorrhea and chlamydia testing within 6 months. Of 81 newcomers from 1 high school in the Oakland Unified School District, 72 were screened for health and social needs. 15 were referred to legal services on site, 64 received follow-up medical services, 35 received dental services. Services were provided as part of a collaboration with the local school district and with financial support of the city.	Conference abstract. Full study unavailable. Although services were available, it is unclear why some students were referred for services and not others.	Moderate due to selection and reporting bias.	Coordinated services involving multiple agencies were ideal for reaching vulnerable populations of immigrant youth. Providing services in one place is important to build trust and recognition, and eliminate barriers experienced.	This program was unique since it involved support from many community entities and had an on-site legal provider for immediate referrals for families.
Tetial 2016	14 service providers. United States	Medical care, mental healthcare in community	Qualitative study	Subjects were service providers who spent at least 50% of their time working with UMs in	Conference poster abstract only, small sample size from 1 city. Interviews conducted with service	Moderate due to reporting and	Service providers' comments: UMs experience traumatic stress pre-, during, and	Study focuses specifically on UMs in New York City, but it reveals a complex set of needs

Table 2 (continued)

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Tello et al. 2017	16. 3 from El Salvador, 10 from Honduras, 3 from Guatemala	Mental healthcare in community program	Thematic analysis, narrative qualitative study	<p>New York City. They included lawyers, medical and mental health providers, social workers, teachers, and community advocates. Key themes identified in semi-structured interviews: 1) mental health issues and symptoms; 2) medical concerns and associated barriers to care; 3) strengths and assets; and 4) successful interventions.</p> <p>Providers indicated that UMs had difficulty accessing medical care services. Specifically, UMs struggle to access medical care for occupational hazards, preventative healthcare, and treatment for trauma-related needs.</p> <p>Participants received counseling services: expressive counseling therapy, trauma-focused cognitive behavioral therapy (TF-CBT), and relaxation training with bilingual counselors-in-training. Each youth received between 3 and 18 h of counseling based on their availability.</p> <p>Participants completed a digital storybook describing their</p>	providers but not UMs directly.	selection bias.	<p>post-migration, as well as anxiety and panic. Medical concerns due to significant barriers to care. Providers highlighted resilience, strength, and assets of UMs. Study promotes integration of services, concerted outreach efforts and social, cultural and recreational programs.</p> <p>Along with exposure to trauma experienced by UMs pre-migration, additional stressors post-migration in the US included worries about safety, immigration status, and being judged. Constant uncertainty about the future, coupled with exposure to trauma in their past, might increase anxiety, depression, and PTSD symptoms.</p>	<p>and innovative approaches that may translate to other communities where UMs live across the US.</p>

Table 2 (continued)

Reference	Number of subjects and country of origin	Healthcare service accessed	Study method	Results	Limitations	Risk of bias	Synthesis of results	Additional analyses or information
Tomczyk et al. 2016	4809 medically screened, 15 in hospital. 47% from El Salvador, 33% from Guatemala, 20% from other Central American countries	Medical care, screenings, and vaccines in 4 ORR shelters and 1 processing center. Emergency and hospital care in community hospital	Quantitative, epidemiological study	<p>migration history after completing therapy. Topics from storybooks were examined with thematic analysis.</p> <p>Objective was to trace origins of influenza-like illnesses and pneumococcal illnesses among recently arrived UMs from Central America. 15 UMs hospitalized in intensive care units with acute respiratory illnesses including pneumonia and influenza. Of 774 screened non-hospitalized UMs, 185 UMs were positive for Streptococcal pneumococcus serotype 5. Pneumococcal outbreaks were detected in several shelters which required hospitalization of some youth. Strains linked back to multiple transnational paths from Central America through Mexico and several ports of entry into the US. Since these outbreaks, ORR began vaccinating all UMs with PCV13; no further outbreaks occurred and no hospitalizations were required.</p>	<p>Epidemiological investigation. Unclear how many youth were provided medical care other than those who required more intensive care.</p>	Low	<p>All youth arriving at US ports of entry are provided with medical screening. Youth who presented with significant respiratory illnesses were provided with medical care. Youth with symptoms in the same shelters were screened for respiratory illnesses and all were given vaccines to prevent further spread.</p>	

provided by UMs and professionals who work closely with UMs, report that healthcare access barriers include legal status, limited health insurance coverage, geography (difficulty reaching UMs living all over the USA), costs, availability of trained and Spanish-speaking providers, guardians' consent for youth, and difficulty obtaining special authorizations for referrals. Healthcare programs at shelters, at schools, and in the community did provide screening and diagnosis of medical, mental health, and dental conditions, but ongoing therapy and treatment were difficult to access.

This review highlights that UMs appear to be successful in accessing care if living in a residential setting such as a foster home or shelter. UMs are also successful in obtaining care when it is provided in a holistic, coordinated, and comprehensive manner, such as in an integrated clinic or city-supported program that offers medical, mental health, and/or legal services. UMs also accessed services successfully when they were provided in school-based settings, but school-based clinics and services like these are uncommon. It should be noted that even in residential and school-based settings, where services such as screenings were accessed, referrals to specialists and ongoing mental health therapy were much more difficult to obtain. At times, these barriers made receiving care impossible. Due to a lack of empirical evidence, rates of access and use of healthcare services outside the school and shelter settings are less clear. However, studies following UMs post-release suggest that access to care is possible when needed. What is not known is how and where UMs are obtaining care, who is covering the cost of the care, and whether they are receiving culturally sensitive and trauma-informed care.

Studies have been published on access to care for URM, which are not the same population as UMs, however. URM are former unaccompanied refugee minors who are deemed to have refugee status by the United Nations High Commissioner for Refugees (UN Refugee Agency 2021). URM who are living in the USA with legal status may have trauma and migration histories similar to those of UMs, but they face different challenges and barriers once they have reached the USA. Until, and if, UMs receive asylum through the judicial system, they have limited access to healthcare services and are subject to deportation. Very few UMs are granted asylum in the USA. As Kennedy noted: “URMs receive access to care until the age of 21 but UMs' access to services ends upon release from the ORR shelters. UMs experience barriers to healthcare such as stigma around mental illness, poverty, food insecurity, lack of insurance, language difficulties, and cultural barriers. Short-term impacts of not receiving adequate holistic healthcare may affect immigration processes/proceedings, and long-term effects may include co-occurring substance abuse, lower educational attainment, unemployment, homelessness, and imprisonment” (Kennedy 2013).

Access to care for UMs is a recognizable need and an important area of research, as the number of UMs living in the US is increasing. These high-risk, vulnerable minors need access to all forms of healthcare, and our system should be strategic about providing that care. No comprehensive healthcare-specific governmental programs are in place to assist all UMs post-release. As initial screenings and treatments are conducted in ORR shelters, a collaborative process including ORR shelters, non-governmental organizations, and community partners is imperative to provide former UMs with access to comprehensive healthcare. Such a program could be modeled similarly to programs that support US-born foster children and children in the youth URM foster care system. Since coordination is critical to success, specialists such as caseworkers can be hired, trained, and assigned to follow and support UMs until they reach adulthood. Collaboration with schools and legal providers may be necessary to adequately reach and support UMs in such a program.

Author's contributions SMM conceptualized and designed the study, coordinated the review process, screened and reviewed the articles, drafted the initial manuscript, and reviewed and revised the manuscript.

NH and AB helped design the study, screened and reviewed the articles, drafted the initial manuscript, and reviewed and revised the manuscript.

KL conducted the review in the databases, and reviewed and revised the manuscript.

JC, AG, NG, and PS reviewed the articles, and they reviewed and revised the manuscript.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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Consent for publication Not applicable.

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