Determinants of Quality of Healthcare for Adolescents and Young Adults

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3.1 Introduction

The concept of "adolescence" varies among cultures but generally includes those aged 10–19 years (World Health Organization 2015): for statistical purposes the United Nations defines youth as those aged 15–24 years. In this chapter, "adolescents" includes young adults. Globally, the adolescent population is growing, with some regions experiencing an adolescent bulge (Cooper et al. 2015). A recent report published by the United Nations Children's Fund (UNICEF) estimates there are 1.2 billion adolescents (ages 10–19 years) accounting for 16% of the global population. Although the numbers of adolescents have risen, the proportion of adolescents globally has been on the decline since 1980. The greatest number of adolescents (more than 50%) live in Asia followed by the Industrial countries, Latin America, Africa, and European Union (UNICEF 2018). Despite demographic and cultural differences, adolescents' healthcare needs to be prioritized to promote their future wellbeing and productivity. Many developed countries have adolescent-specific health services (e.g., Australia, France, Ireland, New Zealand, United States) (Hetrick et al. 2017). These are services targeted to and designed for adolescents that may be hospital-, community-, or school-based, or linked to schools or other organizations (Ryan 2015). Often, services are provided in a way that integrates physical and mental healthcare with other support (Hetrick et al. 2017).

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Encouragingly, many developing countries have established national standards for adolescent healthcare following the World Health Organization's publication of *Global Standards for Quality of Healthcare Services for Adolescents* such as the Healthcare Standards for Children and Young People in Secure Settings (United Kingdom); Bright Futures (United States); Adolescent Friendly Health Services Implementation Guidelines (India, Uganda) (World Health Organization n.d.). In addition, the importance of providing adolescent-focused health services and promoting adolescents' active participation in these services is increasingly acknowledged and supported (Hällström et al. 2017; Kids As Self Advocates n.d.; National Alliance to Advance Adolescent Health n.d.). Unfortunately, health systems vary in the level of care provided for adolescents and many struggle to achieve quality services; when healthcare systems are underperforming, adolescents are often overlooked (Al-Yateem et al. 2016; Kavanagh et al. 2009; Shah et al. 2019).

Currently, there is no universal definition for quality healthcare based on the perceptions and expectations of adolescents and their families (Al-Yateem et al. 2016). In the context of health services, definitions of quality include consideration of factors such as whether provided care/services are evidence-based and consistent with current professional knowledge, improve patient outcomes, and meet the expectations of patients and their families (Kavanagh et al. 2009). Information about quality of care is used by various healthcare stakeholders, including adolescents and their families, clinicians, policymakers, and service providers, planners, and funders. Globally, the focus on assessing and improving the quality of healthcare is evident, which is reflected in a move toward standards-driven approaches in improving the quality of healthcare for adolescents (Committee on Adolescence American Academy of Pediatrics 2008; Nair et al. 2015) including the transition of care for adolescents and those with long-term conditions from pediatric to adult healthcare providers. Quality of care guidelines are formulated and disseminated by global and nation-specific governmental agencies, nongovernmental institutions, interdisciplinary healthcare professional practice associations and advocacy groups. The guidelines are intended to serve as templates of excellence for the provision of healthcare to effect improved outcomes for adolescents with and without long-term conditions. The indicators of quality health services described later in this chapter are representative of numerous professional organizations and international agencies.

To ensure provision of appropriate, high-quality care for adolescents, it is important to continuously evaluate their understanding of and needs for healthcare (Hällström et al. 2017). It is also essential to acknowledge the interrelationships among different aspects of healthcare as well as the role of other sectors or domains (e.g., education, justice, and social services). Consumer- or patient-oriented perspectives of healthcare needs include staying healthy, getting better, living with illness or disability, and coping with end-of-life (Committee on Adolescence American Academy of Pediatrics 2008). Consideration of these issues and what they mean for adolescents is important to ensure provision of quality healthcare. Quality is also conceptualized as including safety, effectiveness, efficient, patient-centeredness, and timeliness of care, with attention directed to equity and accessibility across population subgroups. Other quality indicators include services that are responsive, respectful, integrated,

and coordinated. Key characteristics of quality care relevant across different age and population groups include care coordination, comprehensiveness, having a health home and an infrastructure that supports the provision of adolescent-friendly services (Committee on Adolescence American Academy of Pediatrics 2008).

This chapter will present an overview of the quality indicators of health services for adolescents with and without long-term conditions. First, we consider the factors that uniquely affect the provision of adolescent services. These factors include the developmental characteristics of adolescents, family influences, their social network, and the societal customs and norms of the communities in which they live. This is followed by a discussion of the relevant quality indicators for adolescent health services. Finally, the chapter concludes with consideration of the impact on adolescent healthcare and its application to training, research, and practice.

3.2 Factors Affecting Adolescent Care

Adolescents are a diverse, dynamic population with unique healthcare needs. However, adolescents can easily fall through the gaps in services that are targeted to children or adults, as their healthcare and support needs often differ from these populations. Adolescents differ from other age groups in important ways, and therefore have distinct healthcare needs and patterns of illness/disability (Al-Yateem et al. 2016; Kossarova et al. 2016). Adolescence is a developmental stage during which adolescents' identities, priorities, and needs rapidly change and evolve. Importantly, it is during adolescence, young people begin to assume responsibility for their own health and decision-making, to the extent to which they are willing, comfortable, confident, and competent and their parents/caregivers support their growing independence. Other related influences affecting adolescents' independent decision-making include their peers and media exposure (Cooper et al. 2015).

A key theoretical perspective that is relevant to adolescents' health, their healthcare, and developmental needs is considering adolescent health as the product of a dynamic system that is changed and altered by internal and external factors (Lehman et al. 2017). This perspective is based on the biopsychosocial and developmental model of care that conceptualizes adolescent health as being shaped throughout the adolescent's lifespan by the interaction of interpersonal, biological, physiological, and contextual factors. These adolescent-related factors include the adolescent's physical, cognitive, social, moral, psychosexual, and emotional stage of development. During this period of development, adolescents are vulnerable to factors that increase health risks, including high-risk behaviors such as illicit substance abuse with drugs and alcohol, violence, sexual risk behaviors, and teenage pregnancies (Centers for Disease Control 2018; Institute of Medicine 2011).

Familial and social factors that impact the adolescent's health include the parent–adolescent relationship, sibling and extended family relationships, familial and social support network that include their peers and adult authority figures (i.e., teachers), family resources, and parental/caregiver health literacy to name a few (Al Makadma 2017; Patton et al. 2016; World Health Organization n.d.). Environmental factors that affect adolescent health include poverty, deprivation, the media, the

community's culture norms and practices, and access to resources that support the adolescent's growth and development (Al Makadma 2017; Patton et al. 2016; World Health Organization n.d.). Religious attitudes and expectations that are closely intertwined with cultural norms of the community also influence adolescents' health. In many countries, adolescents' health is impacted by laws, policies, or traditions that may not be in their best interests. For example, child marriage, which affects around 40,000 girls under age 18 years each day, is associated with domestic violence, low education, and sexually transmitted infections (Petroni et al. 2015).

Therefore, a central aspect of adolescent health services is that they reflect the local societal and cultural norms of the community in which they live. Factors that characterize adolescents' lifestyles, wellbeing, and the way in which they are treated vary across cultures and countries, but there is also individual variation in groups of adolescents within cultures and countries (e.g., variations based on age group, gender identity, socioeconomic status) (Azzopardi et al. 2017; Patton et al. 2014). Therefore, adolescent-focused health services need to be responsive and have the capacity to meet the needs of the local adolescent community (Patton et al. 2016), and staffed by well-trained healthcare professionals that are aware of key issues for and pressures on the adolescent populations they serve (Ryan 2015). This includes understanding the determinants of adolescent health and particular risk factors for adolescents in that environment.

Each of the aforementioned factors is considered to be dynamic, changeable over time, and affected in an integrated manner with other factors. These interactions affect an individual's health in various ways; for example, an adolescent may experience physiological changes during their development that affect their interpersonal relationships, which in turn impacts on their feelings or behavior (and subsequent healthcare needs). The influence of peers and media may increase adolescents' vulnerability to risky behaviors and lifestyle choices that negatively impact their health and wellbeing. This perspective highlights the importance of adolescent-focused healthcare services that considers the aforementioned factors that ultimately determines quality adolescent-focused healthcare.

Good quality, adolescent-friendly health services are central to supporting a healthy transition into adulthood (Laski 2015). Various frameworks have been proposed for quality adolescent-friendly healthcare, but different stakeholders may have divergent perspectives of quality healthcare and what is important for adolescents (Al-Yateem et al. 2016). Identifying common determinants of quality healthcare and appropriate quality measures for adolescents is essential.

A good understanding of adolescent health risks and determinants is also important for adolescents facing transitions between services, especially between pediatric and adult services. Understanding these risks and determinants will help to ensure that adolescents can be appropriately supported with high-quality healthcare throughout these transitions. Disabilities and illnesses among adolescents may also be compounded by economic factors (e.g., deprivation/poverty, unemployment), sociocultural factors (e.g., gender inequality), political and legal issues (e.g., sanctions, embargoes), and communicable diseases such as HIV/AIDS and tuberculosis (Committee on Adolescence American Academy of Pediatrics 2008; Cooper et al.

2015). Although deprivation and poverty create specific challenges for adolescents, education remains the principal socioeconomic determinant of adolescent health (Laski 2015). In addition, both health and education are key factors in the intergenerational transmission of poverty (Cooper et al. 2015).

3.3 Quality Healthcare for Adolescents

In planning and delivering healthcare services for adolescents and young adults, it is essential to understand that the determinants of quality from their perspective may differ from that of their parents, healthcare providers, and other stakeholders. Clinical guidelines and indicators of quality have been produced by leading adolescent organizations as resources worldwide for healthcare professionals who provide services to adolescents. A compilation of indicators of quality adolescent health services is presented in Table 3.1, which will be discussed (Betz et al. 2016; Bradley et al. 2013;

Table 3.1 Indicators of quality adolescent health services

Feature	Description
Safe	Services that prevent adverse outcomes or injuries
Effective	Services that offer care and support interventions that are evidence-based
Responsive	Services that cater to individual adolescent's concerns, preferences, health literacy, and needs
Respectful	Services that consider adolescents' values, priorities, and circumstances
Integrated and coordinated	Services that are well-integrated across functions, activities, and operating units
Accessible	Services that are offered in suitable settings with appropriate infrastructure
Equitable	Services that focus on ensuring that quality of care is consistent regardless of gender, ethnicity, geographic location, and socioeconomic status
Efficient	Services that are configured to ensure that available resources are optimized
Timeliness	Services are provided at times that are convenient and enable expedient referrals to other services
Adolescent-centered/ family-centered	Care is responsive to the needs of the adolescents and their families; they are considered partners in care
Care coordination	Services are planned and organized based upon comprehensive and interdisciplinary needs to avoid duplication and gaps
Infrastructure	An organization of supports and systems exist to facilitate the delivery of care and the analysis of services provided and adolescent outcomes
Comprehensive	Services recognized and address the comprehensive needs of adolescents and their families
Health home	Serves as primary home wherein the healthcare professional is responsible for providing and coordinating adolescent care

Community Preventive Services Task Force 2015; Hagan et al. 2017; Larson et al. 2016; National Research Council 2011; World Health Organization 2012).

3.3.1 Safe

Although the quality indicator of safe (safety) has been operationalized differently by various organizational and professional entities, the basic thrust of this indicator is focused on the protection of the adolescent. The safe/safety indictor has been referenced with different meanings as to the location of the facility wherein services are provided (National Institute for Health and Care Excellence (NICE) 2013, 2014a, b, 2019; World Health Organization (WHO) 2018) to the exchange of confidential information between the provider and adolescent; and attention to the potential risks of self-harm by the adolescent and abuse caused by others (NICE 2014b; WHO 2018). Safety threats to adolescents are evident in the reports of abuse and neglect worldwide. These threats to adolescents' safety are not limited to their immediate environment, but now encompass the "…virtual iteration of the physically intimidating bullies whom children and youth have witnessed, or worse yet, encountered in their schools and/ or neighborhoods." These threats are widespread and target victims of all ages (Dilek and Sibel 2019). Self-inflicted physical harm in the form of suicide has become a major cause of adolescent and young adult deaths worldwide (World Health Organization 2014). A recent World Health Organization report revealed over 800,000 deaths of young adults due to suicide occurred in 2012. Other less obvious threats to adolescent safety are the inadvertent or deliberate release of the adolescent's confidential information which can result in adverse consequences in terms of disruptive and distrustful relationships with health care professionals, their parents and legal authorities (NICE 2014b).

In many countries, health services are guided by policies that may not be in adolescents' best interests, such as directing limited resources to managing existing issues (e.g., safe motherhood programs) rather than adolescent-focused initiatives to prevent such issues (UNICEF 2003). Worldwide, health systems that adhere to quality adolescent services need to develop the capacity to respond to adolescents' unique and changing healthcare needs as described above in terms promoting their safety with the implementation suicide prevention programs, and addressing abuse and neglect. For example, it is important that community-based services are not stigmatized and situated in convenient and safe locations with flexible hours (UNICEF 2003). Services provided for adolescents will need to prioritize continuous quality improvement to ensure the services remain acceptable, effective, efficient, equitable, and safe for adolescents (Nair et al. 2015).

3.3.2 Effective

The association between the performance of healthcare services and their outcomes is well established. However, the quality of healthcare effectiveness requires

measurement before any improvement can be determined (Ntoburi et al. 2010). Therefore, evidence-based quality indicators are needed and to be used to monitor the performance of healthcare services. These indicators are often used to assess the quality of care provided and identify and prioritize areas of clinical practice for improvement. As has been reported in the literature, the dissemination and application of quality care indicators falls short of its intended goals. For example, variation in the provision of care for adolescents with traumatic brain injury has been reported within and across hospitals and across domains of care that include school reentry and integration into the community (Rivara et al. 2012). Adolescents with high acuity needs, such as those with traumatic brain injuries will receive emergency care wherein there is significant variation in practice among emergency care providers in the community with and without pediatric expertise (Stang et al. 2013). Variation in practice within and across services may also result in lost opportunities in terms of contact and follow-up with adolescents whose needs extend beyond hospitalization. Maximizing the effectiveness of long-term care following hospitalization requires healthcare professionals to take advantage of every contact with an adolescent as it pertains to health promotion, disease prevention, and proactive early intervention. However, this may not be possible when there is variation in care within and across services.

Despite widespread agreement about the importance of adolescent healthcare, few measurement methods are currently available, and there is limited agreement regarding sets of indicators as to enhancing and promotion service effectiveness (Bradley et al. 2013). To be appropriate for use in adolescent healthcare, it is important that quality indicators clearly set out expectations and perceptions regarding the content of and access to effective services adolescents should receive (Al-Yateem et al. 2016; Committee on Adolescence American Academy of Pediatrics 2008). Nevertheless, adolescent-oriented measures of healthcare (i.e., healthcare content and performance based on adolescents' preferences) remain limited, despite the increased awareness and development in the field (Baribeau et al. 2016; Institute of Medicine 2011; Tylee et al. 2007).

3.3.3 Responsive

To ensure quality of care in adolescent-focused health services, it is essential that services are responsive to adolescents' needs. Services need to be configured to reflect and acknowledge that adolescents and their families are key stakeholders in adolescent healthcare. The voices and perspectives of adolescents and their families need to be heard and reflected in the organization and delivery of services (Kossarova et al. 2016). It is essential that healthcare services for adolescents are configured to be responsive to factors that are particularly sensitive for adolescents, such as gender equity, sexual orientation, disabilities, chronic conditions, and the impact of different cultural and religious backgrounds. Achieving such responsive services requires consideration of various service features such as a well-trained staff; acknowledgement of and respect for confidentiality issues; an infrastructure that is

adolescent-friendly (e.g., online/smartphone booking systems), discrete and timely responses by staff to adolescent enquires; and locations that are easy for adolescents to access (e.g., near public transport or schools).

3.3.4 Respectful

The quality of health services for adolescents largely depends on their acceptability. Acceptable, adolescent-focused health services are respectful and respond to individual-, family-, and community-level factors (e.g., age/gender, socioeconomic status, environment, culture, tradition, and religion), as well as consideration of the adolescents' self-perceived needs and personal experiences (Azzopardi et al. 2017; Patton et al. 2016). Many aspects of quality healthcare for adolescents are context-specific, which highlights the importance of services that consider and reflect local needs and circumstances (Hällström et al. 2017). Local needs refer to the health concerns and problems of adolescents in the area served by a particular health service, which is uniquely specific to a group, culture, community, or prominent events/circumstances affecting the population. For example, adolescent healthcare services in areas characterized by poverty or deprivation will need to offer low-cost or free services. Service-level factors are also important for adolescents' perceptions of acceptability, such as flexible hours and simple booking and referral systems that integrate digital technology.

3.3.5 Integrated and Coordinated

Improving health outcomes among adolescents requires integration of healthcare and other services (Kossarova et al. 2016), such as "one stop" youth facilities that offer a combination of health, mental health, and social services and support. Adolescents are more likely to seek help for their problems if the professionals they need to see are located together, rather than in divergent service settings for their comprehensive healthcare needs (Hetrick et al. 2017). This is especially true for adolescents with substance abuse problems and those with long-term conditions who require multidisciplinary care and support.

In both high- and low-income countries, services for adolescents can be fragmented, poorly coordinated, and uneven in quality. For example, when the adolescent with a substance misuse problem and mental illness is not adequately treated due to the lack of integration between drug/alcohol and mental health services, the health concerns persist. Integration of these services would mean that an adolescent attending counseling for substance misuse would also be able to be screened for mental health problems and referred to needed specialist services without delay. Otherwise, delays in accessing needed services will be inevitable as the adolescent may need to access their family/primary care doctor for a service referral. In addition, there are strong connections between adolescents' mental health problems, poverty, and violence that highlight the need for improved integration within and across sectors, including health, education, justice, and social services (Cooper et al. 2015).

Attention also needs to be directed to facilitating linkages between community and inpatient (hospital-based providers) as a means of improving sharing of information, knowledge, and care. For example, interdisciplinary care teams for adolescents with long-term conditions can coordinate complex care management, such as supervision of the adolescent's self-management pertaining to on-site treatment needs in school and community settings (i.e., catheterization, medication administration). Particular problems have also been identified with the coordination and integration of healthcare when adolescents are transitioning to adult services. The transition from pediatric to adult healthcare presents a distinctive challenge, unlike those typically encountered among pediatric providers, which involves coordination with professional colleagues and organizational structures and processes of the adult healthcare system (Strickland et al. 2015).

3.3.6 Accessible

Access to acceptable, age- and context-appropriate healthcare services is needed by all adolescents and young adults. Evidence suggests that adolescents are less likely to access healthcare than other population groups, and tend to have lower rates of primary care use (Committee on Adolescence American Academy of Pediatrics 2008). In addition, adolescents who do access healthcare often miss out on services such as preventive counseling, health promotion, and screening. In addition, services are needed and should be available in various healthcare settings to promote access to adolescent-friendly healthcare, including community-based services (e.g., reproductive health clinics), school-based or linked clinics, primary care, and hospitals. However, adolescents may not know how to access needed healthcare services as they have relied upon their parents to organize and schedule care with providers. It may appear to be a daunting task to initiate the contacts themselves as they have never done it before or have not been informed and instructed by their parents and/or pediatric providers to assume these self-management responsibilities (Al-Yateem et al. 2016). Access to consistent and ongoing healthcare is particularly important for adolescents with long-term conditions, especially as the transition to adult services can be difficult for this group as access to new adult doctors/services and payment methods (e.g., healthcare insurance) must be negotiated prior to the transfer of care to avoid service discontinuity and adverse health consequences (Institute of Medicine 2011).

3.3.7 Equitable

Challenges pertaining to equitable provision of health services for adolescents vary within and across age groups, countries, and cultures. Key considerations include the adolescents' context (socioeconomic and environmental) and personal circumstances. Socioeconomic inequality is particularly salient as it often translates into inequitable provision of healthcare, creating physical and mental

difficulties for adolescents and barriers for accessing health services (Hällström et al. 2017). Therefore, healthcare professionals and administrators responsible for the development and implementation of adolescent-focused health services will need to consider the unique needs of specific adolescent groups within their local communities. For example, a group of adolescents that warrant special consideration in some global regions (e.g., counties where there is gender inequality) are girls and young women, who face issues arising from cultural, religious, or traditional beliefs and associated constraints, and increased vulnerabilities to sexual assault and intimate partner violence (Laski 2015). Disadvantaged, displaced, disabled, indigenous, and marginalized populations (e.g., ethnic, racial, religious, and sexual minorities) and refugees also face specific sets of health risks and challenges. Adolescents who have one or more family members incarcerated, or who live with legally authorized guardians or in facilities are also vulnerable (Patton et al. 2016), and need special consideration to ensure they can access healthcare services.

For example, gender equality is a key issue for the quality of adolescent/young adult health services, especially as preference toward boys is common in many parts of the world. This imbalance has major health (including mental health) consequences for girls (Hällström et al. 2017; Petroni et al. 2015; Sheehan et al. 2017). However, evaluating factors such as gender inequality using quality indicators may be influenced by cultural, traditional, or religious factors.

3.3.8 Efficient

Service efficiency refers to the provision of services that "…are designed to reduce unnecessary time" (Institute of Medicine 2001, p. 163). Eliciting directly from adolescents their needs and purposes for accessing care will result in more efficient use of time allocated for services. Efficiency refers to the service tempo of adolescents seen in healthcare settings. To illustrate, adolescents will more likely attend a primary care clinic wherein providers are sensitive to the length of time for waiting to be seen during their appointment. An efficient adolescent service model is cost-effective. In countries wherein resources are scarce, this indicator is of foremost concern (McIntyre 2002). Adolescents often face long waits for specialist appointments and complex referral processes, which may increase their distress or result in a worsened condition (Fox et al. 2010). In addition, in some places, adolescents' under a certain age cannot receive services without parental consent (World Health Organization and UNAIDS 2015). Such issues present barriers to adolescents' access to and use of healthcare. Furthermore, the use of evidence-based interventions and assessment approaches will contribute to making services more efficient for the adolescent as their effectiveness to effect improved outcomes for adolescents has been demonstrated. The adolescents' realization that accessing health services does make a difference health wise will enable them to be more responsive to obtaining healthcare.

3.3.9 Timeliness

Easy accessibility, an inviting environment, and flexible hours are likely to facilitate adolescents accessing community-based health services. Hours of services that are conducive to the scheduling of appointments during lunchtime, in the evening hours, or on weekends have been shown to facilitate adolescents' use of services. Drop-in clinics enabling adolescents to access care as circumstances arise and not pre-arranged have been identified as helpful to adolescents who are in need of health services (Desiradero 2014).

Worldwide, increasing urbanization may result in inadequate health services delivery systems to respond in a timely manner to the physical and mental health needs of adolescents living in metropolitan areas or moving from rural to peri-urban/urban environments. Gaps in healthcare related to factors such as increasing urbanization and modernization may be exacerbated by issues arising from adolescents' exposure to a new high-risk environment for which they are unprepared to deal with that result with increases in risky behaviors (e.g., alcohol use), and poor lifestyle habits (e.g., fast food consumption, physical inactivity) (World Health Organization 2010). In some regions, urbanization has resulted in increased vulnerability of some groups of adolescents who have limited or no access to needed health and social support services. For example, young girls living in poverty in urban areas who are unable or unwilling to access needed services engage in the high-risk lifestyle of engaging in transactional sex (i.e., sex in exchange for food, school fees, or other needed items (Chant et al. 2017)). This high-risk lifestyle exacerbates the need for focused adolescent healthcare services that includes health promotion and the provision targeted health-related information. Timely adolescent-friendly interventions and approaches to healthcare services are needed to respond to these issues, and it is important that health professionals seek to understand adolescents' perspectives relating to such issues to ensure the services and supports are provided.

3.3.10 Adolescent-Centered

To be acceptable, adolescent healthcare is based upon developmentally appropriate framework of care (Committee on Adolescence American Academy of Pediatrics 2008). An "ideal" health system for adolescents understands and addresses their specific needs for healthcare services (including the broader determinants of health such as socioeconomic status and access to education) and provides high-quality community-based multidisciplinary expertise (Kossarova et al. 2016). Such services reflect awareness that adolescents have unique characteristics and needs that differ from other age groups. In particular, their rapid growth may require different approaches for adolescents of different ages (Committee on Adolescence American Academy of Pediatrics 2008). For example, the needs of younger adolescents pertaining to reproductive counseling will focus on anticipatory guidance whereas for

older adolescents, contraceptive counseling will include review of selection of methods based upon the needs and preferences of the adolescent. This recognition that adolescents are a distinct group with unique healthcare needs is gradually replacing conventional approaches to managing adolescents in healthcare settings as "large children or small adults" (Wood et al. 2018).

Staff knowledge and attitudes have a major impact on adolescents' use of health services as well as influencing their perceptions of healthcare quality. Adolescents will be receptive to staff who are knowledgeable and approachable and respond to adolescents in a welcoming and accepting way (Hällström et al. 2017). The availability of health professionals specifically trained to respond to adolescents is critical for delivering effective health interventions to adolescents. For adolescent inpatients, staff behavior, attitudes, and interactions are key aspects of the inpatient experience (Wood et al. 2018). Adolescents who were hospitalized reported they preferred staff who made the effort to get to know them and communicate with them beyond the medical context (Wood et al. 2018). To improve the acceptability and quality of adolescent health services, healthcare providers need to demonstrate that they are cognizant of the need to protect their privacy and confidentiality, and treat them with respect (Laski 2015). These factors are likely to be strong predictors of service use by adolescents. Comprehensive, age-appropriate information is important to ensure quality hospital- and community-based care. It is crucial that adolescents and their families are engaged and involved in their care; adolescents need to be included in the discussions about their condition and its management, and be given accurate and sufficient information and explanations that addresses their concerns (Al-Yateem et al. 2016).

The concept of adolescent-focused health services is a cultural construct that varies across different settings and contexts. Adolescents' needs and priorities also vary within and across settings and populations, and their health issues and priorities change at different ages. For example, physical conditions (e.g., accidents, infections, chronic diseases) tend to be common among adolescents up to age 14 years, whereas those aged over 15 years tend to face issues with mental health, sexual and reproductive health, physical activity, and nutrition (Hällström et al. 2017). Health issues also differ by gender; more young women face mental health problems, whereas suicide is overrepresented among young men. Even in the same location and context, adolescents' health may be affected by individual factors such as socioeconomic status (especially disadvantage or deprivation), high-risk lifestyles, and difficulties in adolescent–parent relationships (Hällström et al. 2017). This is especially relevant for adolescents with long-term conditions. Therefore, health services must be sufficiently flexible and dynamic to allow them to be responsive to the changing and evolving needs of adolescents/young adults.

Context- or cultural-specific factors (e.g., religious and traditional beliefs) also mean there are differences in barriers and facilitators to accessing care within and across geographical borders. To be acceptable for adolescents, the healthcare they receive should be responsive and sensitive to the barriers relevant to that particular context. Religion is a particularly significant factor that often underlies adolescents' and parents' attitudes to adolescent health services, and can have a major impact on

their use of services (Hällström et al. 2017). This can be particularly influential in terms of adolescents' sexual and reproductive health, with parental disapproval of factors such as contraception reported to be a barrier to adolescents' use of such services (Hällström et al. 2017).

A particular challenge for the providers of adolescent healthcare services is responding to the needs of adolescents with special healthcare needs or disabilities, especially when transitioning to adolescent services. Healthcare transition services although a model of care for all adolescents, including those with long-term conditions will need to be individualized to the individual's age-based and developmental needs (Al Makadma 2017). Depending on the resources and systems of care, the uninterrupted access to primary care and specialty care providers will require attentive planning and coordination.

In addition, healthcare providers will be more effective with providing adolescent services with the recognition of that stressors and situations faced by adolescents today differ from issues faced by their parents and other adults in their community, especially given the fast-paced and changing social and technological landscape (Fox et al. 2010). For example, rapid Westernization in developing countries has introduced new dietary and lifestyle choices, and the growth of online communities and social networking has opened up new avenues for peer pressure and cyber bullying. An adolescent-friendly approach to promoting adolescent health will be undermined if public health and other national or international agencies are geared toward specific moral, religious, cultural, or traditional perspectives (e.g., child marriage, legal access to contraception) (Patton et al. 2016; Petroni et al. 2015). It is important for adolescent-friendly health services to acknowledge the diversity of factors that contribute to ensuring health services are acceptable for adolescents.

3.3.11 Care Coordination

Interdisciplinary and complementary adolescent health services are paramount to encourage service use among adolescents. This is particularly important as having to attend multiple sites for services is a known barrier to adolescents using services (Hetrick et al. 2017). For example, adolescents with long-term conditions (e.g., those with complex health problems, or who are in state or foster care) may need multidisciplinary support or receive health services via multiple systems, such as through both healthcare and social welfare (Szilagyi et al. 2015). Therefore, good quality healthcare services will involve service coordination across systems. Identified areas for improvement include: the need for better transitions to adult services; improved coordination with community-based providers and schools; more information made widely available about health and related services, including confidentially, rights, and responsibilities (Cooper et al. 2015; Kossarova et al. 2016).

Care coordination is a pressing service need for vulnerable adolescent populations. Although the range of service needs vary, the following groups of vulnerable

adolescents illustrate the importance of care coordination. An issue of particular concern for low- and middle-income countries is high adolescent birth rates, which means girls and young women in these areas have limited opportunities for education and increased vulnerability. Another group of vulnerable adolescents are those experiencing mental health problems, especially in the context of possible stigma and the number of early-onset disorders that remain undetected and untreated. For example, depression has been reported to be the leading cause of illness and disability among adolescents, and suicide has been ranked the third leading cause of death among those aged 10–19 years (Laski 2015).

Many adolescents and young adults have special healthcare needs and are at increased risk for other chronic conditions (physical, developmental, behavioral, or emotional), and may therefore have greater needs for health and other services than other typical adolescents (Strickland et al. 2015). For example, a US-based study reported that 20.2% of hospitalizations at general hospitals and 35.6% of those at children's hospitals were for children with medically complex needs (Leyenaar et al. 2016), but the quality of care they receive was described as variable (House et al. 2017). Meeting the needs of adolescents with long-term conditions is challenged by fragmented healthcare systems with poorly coordinated care and the inequities associated with access to care (Strickland et al. 2015). Such fragmentation or poor coordination does affect transitions within and between services, as important information pertaining to a transitioning adolescent may be lost.

Schools also play an important role in adolescents' health, but schools in many countries are poorly connected with health and wellbeing services (Kossarova et al. 2016). Multiple entry points and diverse care resources are also needed to ensure adolescents can quickly and seamlessly be connected with the care they need (Committee on Adolescence American Academy of Pediatrics 2008; Ryan 2015).

3.3.12 Infrastructure

Quality healthcare services that meet adolescents' needs should meet specific criteria relating to the service delivery system and the actual services provided. System-level factors impact the services adolescents can actually receive. These system-level factors include health services organization and financing (e.g., availability, affordability, confidentiality, visibility, convenience, flexibility, and coordination) (Committee on Adolescence American Academy of Pediatrics 2008). If adolescent healthcare services are not available, affordable, and visible, adolescents' ability to access the services they need will be compromised. For example, they may not know about services in their area if services are not visible, and may not use the services if they perceive the services as too expensive. In addition, if available services are not configured to be convenient (e.g., easy booking systems) and flexible (e.g., available to adolescents after school hours and weekends), adolescents may not access these services.

In many developed countries, there is a perception that adolescent-focused services should be located in primary care; however, often primary care providers

cannot adequately respond to the needs of these adolescents because of a lack of time, human, and physical resources (Kossarova et al. 2016). Additionally, primary care providers may be expected, although not trained to provide transition services. These additional service requirements may not be adequately implemented to support adolescents, including those with long-term conditions with the transition to adult services, especially in terms of supporting increased self-management and liaising with adult providers of specialist services (Al Makadma 2017; Institute of Medicine 2011). As research suggests, pediatric healthcare providers need training with the provision of healthcare transition services (Al Makadma 2017; Ryan 2015), which includes those who provide primary care services.

Other challenges with locating adolescent healthcare within primary care include: the limited capacity of primary care to be responsive to adolescents' needs; a perceived lack of respect, privacy, and confidentiality; and adolescents' fears about stigma, discrimination, and healthcare providers' moral values (World Health Organization 2015). Placing adolescent health services within mainstream primary care may therefore mean services are not acceptable for adolescents. In the hospital setting, inpatient services for adolescents and young adults are generally provided in pediatric or adult wards and therefore problematic in terms of serving a broad age range of children and adolescents admitted to the same wards. However, these wards can prioritize the needs of their target patient groups to ensure adolescents' needs can be met (Wood et al. 2018).

Although measuring the quality of healthcare for adolescents is complex, objective quality measurement is a priority. In particular, quality indicators should consider three basic dimensions of the care delivery infrastructure: structure, process, and outcomes (Bradley et al. 2013). However, many common conditions affecting adolescents have few or no available measures, and not all measures are linked with improved health outcomes (House et al. 2017). Many existing quality indicators related to pediatric healthcare have focused on a specific aspect or condition (e.g., acute illness). To be relevant for adolescents, quality indicators may need to focus on aspects or domains of quality care that are perceived by adolescents as important.

Quality indicators that are adolescent driven and centered address care, their involvement in healthcare, and health outcomes (e.g., issues such as pain relief) (Sawyer et al. 2014). In addition, there are various domains where indicators have not been well defined or reported adequately, such as parental connectedness and cultural determinants of wellbeing (Azzopardi et al. 2017). Monitoring and evaluation of health service organization and delivery is central to advancing care and improving healthcare quality, which is consistent with the structure–process–outcome model that underlies quality of care (Zumsteg et al. 2012).

The ability of quality indicators to improve care delivery and health outcomes depends on various factors, such as context, type of indicator, and individual factors. Implementing quality indicators in a particular context may lead to increased adherence to those measures because measured elements are likely to be improved. In addition, increased adherence to a quality indicator may improve health if adherence to that indicator is related to a desired health outcome; however, improvement

may vary across different populations according to general health, comorbidities, and genetic and environmental factors (Kavanagh et al. 2009). Studies conducted in English-speaking countries that investigated individual quality indicators suggest that quality of care may be lower for those in traditionally disadvantaged circumstances, such as minority racial/ethnic groups, households where languages other than the primary language of the specific country are spoken, and lower income households (Strickland et al. 2015). In addition, an acknowledged issue in measuring quality of inpatient care for adolescents is that this group may define quality healthcare based on whether the care matches their expectations, and may not mention care that meets their expectations when interviewed or surveyed (Wood et al. 2018).

3.3.13 Comprehensive

In general, comprehensive quality health services for adolescents encompass a framework of care that conceptualizes health holistically and not bound by the narrowly defined constraints as it is often referred to for treatment purposes within the healthcare system. The provision of comprehensive services is an acknowledgement that health is an aspired lived experience of wellness for all. The World Health Organization's definition of health captures this aim of comprehensive services, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization 1948). Additionally, adolescents and young people with long-term conditions require an array of lifelong services for health maintenance and condition-related treatment needs. Thus living with a long-term condition requires a team of specialty and interdisciplinary professionals to provide the chronic care services and supports needed. Again, the WHO definition of complex care needs for those with long-term conditions and disabilities recognizes the scope of this lived experience: Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives. Overcoming the difficulties faced by people with disabilities requires interventions to remove environmental and social barriers (World Health Organization 2019). Depending on the adolescent's long-term condition, the team of providers can include primary, specialty, and interdisciplinary members who coordinate their care efforts with the assistance of a care manager/care coordinator to ensure services needed are accessed and received.

Importantly, comprehensive services for adolescents with and without long-term conditions require additional developmental consideration to ensure care is age appropriate. Adolescence is a transformational stage with new concerns (Hällström et al. 2017), and key aspects for health services include provision of information and education to support adolescents' health literacy and self-efficacy, consideration of adolescents' perspectives, and staff that are competent in interacting with adolescents. Cross-sector engagement (e.g., education, social services, justice) is also crucial for quality adolescent health services. Appropriate policy and legal frameworks

for adolescent health services are increasingly important, as this affects the quality of healthcare they receive (Laski 2015). Such frameworks support the development and funding of services for adolescents, and also help to ensure adolescents' right to health is preserved (Patton et al. 2016). The focus on adolescent health in the United Nation's development goals presents an opportunity to strengthen adolescent health services worldwide (Laski 2015).

This means that the provision of quality adolescent-focused health services is also important for supporting adolescents that are facing transitions within and across services (e.g., from pediatric to adult healthcare services) (Al Makadma 2017). Such transitions are particularly relevant for adolescents with long-term conditions (e.g., asthma, diabetes), as these adolescents need specific support as they become increasingly independent and self-sufficient in managing the various tasks or roles associated with self-management of their condition. During this stage, these adolescents are also learning to live "adult" lives as fully as possible in the context of their condition. Therefore, access to a team of healthcare providers associated with the transition to adult services is required; these new providers need to have multidisciplinary expertise, experience, or the willingness to learn what the needs of this new population of adults with childhood acquired conditions are.

Parents also have a key role in achieving quality healthcare for adolescents, particularly as they may have significant influence on their children's health outcomes (Fox et al. 2010). It is therefore essential that comprehensive information about adolescent healthcare services is available for parents. This will help to combat any negative views parents may have about such services and encourage parents to support adolescents using these services. Issues for parents may also vary across cultures and settings. For example, issues raised by Spanish-speaking parents in the USA were a lack of information in the Latino community about accessing adolescent health services and the importance of translators for parents that do not speak English (Fox et al. 2010).

3.3.14 Health Home

Adolescents visit health services for a range of reasons, including seeking information and help with emerging and unfamiliar physical or psychological issues (Hällström et al. 2017). Adolescents may be unwilling or unable to discuss their problems with their parents or family members, meaning they need appropriate avenues for help and support and to seek assistance from a healthcare professional that they trust and/or regard as an informative resource. The health home can serve as the venue wherein adolescents can access developmentally appropriate and sensitive care from providers who not only provide direct services but serve as care coordinators as well.

Research has highlighted that more information on adolescent health services is needed for both adolescents/young adults and their parents, including information about services offered and how they process and retain health-related

information (Hällström et al. 2017). A number of challenges and barriers have been identified related to the provision of age-appropriate, adolescent-friendly services. A challenge for outreaching to adolescents is to ensure that messaging content provided is seen as information targeted to adolescents should be medically accurate, but presented using age-appropriate language and terminology (Hetrick et al. 2017; World Health Organization and UNAIDS 2015) and use of technology to disseminate information (Panahi 2015). Provision of up-to-date and accurate information will help to promote these services and ensure they are accessible and sustainable (Desiradero 2014). Adolescents may avoid using services that they perceive as not confidential (e.g., information regarding service use will be shared with parents or other adults). For example, a perception among adolescents that community-based adolescent health services are closely related to sex (e.g., distribution of condoms and sexual health consultations) was suggested as a major barrier to accessing services for fear of being discovered by parents or other adults in their social networks (Hällström et al. 2017). A corresponding belief and inadequate knowledge about adolescent health services among parents was also thought to result in parental disapproval of these services, thereby negatively affecting adolescents' access to care (Hällström et al. 2017). Poorly coordinated services are considered a barrier by adolescents (e.g., if they have to attend appointments with different professionals at different times or places, and repeatedly provide the same information).

Adolescents and young adults may also be reluctant to use services that they perceive as not being designed for them. Mortality data suggest adolescents' health has changed, with a transition away from acute infectious illness towards long-term conditions; however, the provision of healthcare services currently remains hospital-focused and reactive (Kossarova et al. 2016). In addition, in some places (e.g., Arab countries in the Gulf Cooperation Council) a need has been identified for specific adolescent-focused healthcare services, such as the health home that can provide support for adolescents with long-term conditions during the transition to adult services (Al Makadma 2017).

3.4 Impact on Adolescents' Healthcare Use

Health in adolescence is a key predictor of the adult burden of disease, and a focus on quality healthcare services for adolescents is crucial for their current and future wellbeing. Adolescence is an important developmental stage during which young people are sensitive and vulnerable to a range of factors that influence (or even dictate) their access to and use of health services. Key considerations in developing packages of healthcare services for adolescents (as discussed in this chapter) include the aforementioned quality indicators. Access to quality adolescent-focused healthcare that is responsive to the needs of the adolescent populations served will support a healthy transition to adulthood (Laski 2015). Healthcare services that are structured to facilitate seamless transitions to different levels and types of care will contribute to improving health in adolescence and across the lifespan. Failure to

consider determinants of quality healthcare from the perspective of adolescents and their families is likely to create barriers to adolescents' use of healthcare services, which in turn may have a negative impact on their health outcomes (Committee on Adolescence American Academy of Pediatrics 2008). Responsive and adolescent-friendly healthcare services that prioritize communication and integration within and across services, as well as acknowledging the need for cross-sector involvement, will support improved health outcomes for adolescents, especially as they move toward transitioning to adult services.

3.5 Application to Practice, Training, and Research

The quality indicators described in this chapter provide a template for the development and implementation of adolescent-centered and friendly care. Provision of the rationale and evidence for their inclusion have been demonstrated with improved outcomes for the adolescents served as well as their families. An effective program of services for adolescents including adolescents and young adults with long-term conditions will include the authentic involvement of this group of consumers as well as family members from the early plans of development and continue with the ongoing implementation and evaluation of programmatic services. The quality indicators described in this chapter are evident in the models of healthcare transition services presented in several chapters of this text. As exemplified in this chapter, effective transition programs for adolescents with long-term conditions will need to be sensitive to the needs, customs, and values of the communities they serve. Replication/development of healthcare transition programs will require inevitable modifications based upon the resources available to implement a sustainable program. Successful plans of development and implementation of healthcare transition services that are adolescent friendly will involve partnerships of healthcare professionals, adolescents and young adults, family members, healthcare managers, and policy makers to ensure that healthcare services are able to meet the needs of adolescents and young adults with chronic conditions.

Determinants of quality healthcare for adolescents should be incorporated in the curricula of all undergraduate- and graduate-level health programs for nursing and interdisciplinary professionals. Understanding the elements of quality health services for adolescents is a needed prerequisite for healthcare professionals who intend to engage in this area of practice. Enabling students to create projects that are adolescent-friendly is an apt learning experience to better appreciate and understand the meaning and application of what quality means. A useful endeavor is to have student conduct programmatic assessments of clinical placements as to the extent these indicators are incorporated into the service model.

Expanding research on identifying and clarifying adolescent determinants of quality healthcare is essential to monitor the quality, coverage, and impact of services. Further research evaluating the health outcomes and satisfaction of adolescents who use services that incorporate each of these determinants of quality of care is recommended.

3.6 Key Points

- Adolescent-focused healthcare is needed to be responsive to the context and needs of the local adolescent population(s).
- Healthcare professionals who support the quality indicators of adolescent health will be in positions to call for change as needed and promote the development of services that are adolescent-friendly.
- Health services for adolescents should be flexible and well-integrated to support seamless transitions within and across services and sectors.
- Provision of comprehensive and age-appropriate information is essential to promote adolescents' health literacy, self-management, and health outcomes.
- The inclusion of the voices/perspectives of adolescents and their families in planning, funding, and delivering healthcare services is paramount.

3.7 Conclusion

Expanding the provision of evidence-based services based upon the indicators of quality healthcare is essential to continuously monitor the quality, coverage, and impact of services that are designed to be adolescent-centered and responsive. Adolescent-friendly health services incorporate the indicators of quality described in this chapter. High-quality adolescent healthcare services as described in this chapter are responsive to the specific needs of adolescents and their families in the communities wherein services are delivered, support access to community-based services and support, and include an ongoing emphasis on fostering the to adolescents achievement of self-management competencies that include health literacy. Adolescent-focused health services respond to the unique needs of different ages and cultural groups, ensuring equitable provision and experience of care, prioritizing privacy and confidentiality, and the development of infrastructures that facilitate simple registration processes, short waiting times, and drop-in consultations. In addition, it is important to ensure productive relationships within and across sectors that remove traditional professional barriers and allow adolescents to seamlessly move within and between different services and sectors.

3.8 Useful Resources

There are a number of resources available to build understanding about quality healthcare for adolescents and young adults. Three resources that may be of particular interest are described below.

1.	*Resource:*	National Adolescent and Young Adult Health Information Center
	Country:	United States
	URL:	http://nahic.ucsf.edu/resource_center/toolkit-youth-centered-care/
	Description:	A US-based center to improve adolescent and young adult health by focusing on systems of care and clinical practice to improve care for adolescents and young adults

2.	*Resource:*	Global standards for quality healthcare services for adolescents
	Country:	Global
	URL:	http://www.who.int/maternal_child_adolescent/documents/global-standards-adolescent-care/en/
	Description:	Comprehensive and accessible discussion of the World Health Organization's Global standards for quality healthcare services for adolescents. The website also includes links to a range of other useful resources
3.	*Resource:*	Models of Child Health Appraised
	Country:	Europe
	URL:	http://www.childhealthservicemodels.eu/
	Description:	A Europe-wide initiative to identify and critically assess the various models of child primary healthcare that are implemented in the content

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