Challenge

The adoption and use of Health Information Technology (health IT) and quality measurement for community-based long-term services and supports (CB-LTSS) is limited. Limitations include insufficient business and/or financial incentives for service providers to acquire and use health IT to support coordination of services; minimal national standards for quality measurement in LTSS outcomes; lack of uniformity in the terminology and definitions of data elements, including those important to the beneficiary, needed for assessments and service plans used across and between community-based information systems, clinical care systems and personal health record systems; lack of consensus on the interrelationships between a beneficiary’s plans across care, services and supports; and lack of evidence and understanding of how health IT may benefit the beneficiary and encourage their adoption and use of technology.

In addition, CB-LTSS provider service planning is expected to be in alignment with the CMS Home and Community-Based Services (HCBS) Waiver Rule, which encourages states that participate in Medicaid programs to develop service plan alternatives for individuals who would otherwise require care in a clinical setting, such as a nursing facility or hospital. The final rule amends the regulations for the 1915(c) HCBS waiver program, authorized under section 1915(c) of the Social Security Act (the Act), in several ways that are intended to improve the quality of services for individuals receiving HCBS.

To address these challenges and to expand on opportunities, the Centers for Medicare and Medicaid (CMS) in partnership with the Office of the National Coordinator for Health Information Technology (ONC) launched the electronic Long-Term Services and Supports (eLTSS) Initiative. The eLTSS initiative focused specifically on non-clinical CB-LTSS and HCBS service planning with the following goals:

- Identifying an agreed upon set of data elements for the capture and sharing of eLTSS plan information
- Improving provider workflows by enabling secure, single-point data entry for eLTSS plan development and exchange including authentication and tracking of changes and approvals
- Integrating beneficiary priorities, preferences and goals identified in the CB-LTSS setting with those goals and outcomes included in the beneficiary care plan generated in a clinical/institutional setting
- Improving timeliness for collecting and sharing LTSS information between provider types, between providers and beneficiaries, and between providers and State Medicaid Agencies and/or payers, and other entities
- Reducing data collection burden processes (e.g. paper based, manual and/or other electronic) placed on providers/beneficiaries/payers by enabling the reuse of previously collected data
- Supporting the timely transition of relevant eLTSS plan information at the start of care and service delivery and as the beneficiary’s preferences and goals change
- Enabling sending and receiving provider types to initiate changes for beneficiary interventions more promptly
- Enabling beneficiaries to lead decision making regarding appropriate care and services to be received
- Increasing beneficiary engagement in preventative services and wellness activities
• Identifying critical gaps and unnecessary overlaps in the care and services needed and delivered to a beneficiary
• Enabling beneficiaries to exchange important care and service plan information across provider groups and with accountable entities and other parties

Methodology

To achieve the goals above, the eLTSS initiative used the following methodologies in a phased approach:

• **Development of Use Case**: The initiative engaged with the eLTSS community in identifying and documenting key assessment domains, service plan workflows and actors involved in the capture and exchange of Community-Based Long-Term Services and Supports (CB-LTSS) and Home and Community Based Service (HCBS) data through the development of User Stories and a Use Case.

• **Concert Series Presentations**: The initiative invited organizations that had incorporated existing or emerging standards and/or other relevant guidance that was related to the eLTSS scope of work or could inform eLTSS target outcomes and deliverables to present their solutions to the community during public meetings.

• **Development of Pilot Guidance**: The initiative provided step-by-step information on how pilot participants could execute the pilot process, including a tiered approach each pilot site used to identify specific objectives and goals. Each pilot site was assisted in the completion of a Requirements Traceability Matrix (RTM) based on its current service plan(s) to identify key domains that should be included in an eLTSS plan. Guidance included further aggregation and harmonization of those domains identified in pilot RTMs.

• **Round 1 Pilot Activities**: The initiative established pilot site readiness and worked with pilot organizations to identify a working draft dataset that can be used to capture data and create service plans. Each pilot submitted its current service plan(s), which were aggregated and subsequently harmonized with other pilot and community input to be in alignment with the domains that were identified as part of the Pilot Guidance activities.

• **Round 1 Pilot Evaluation**: Pilots shared findings and lessons learned with the community; these findings were used to update the working draft dataset and Pilot Guidance.

• **Round 2 Pilot Activities**: Pilots tested and validated the Round 1 working draft dataset and User Story (as identified in their pilot tier) in partnership with service providers, case managers and beneficiaries within their regional or local areas.

• **Round 2 Pilot Evaluation**: Pilots shared findings and lessons learned with the community. Round 2 pilot RTM results were aggregated and harmonized with input from other pilots and the eLTSS community resulting in a final eLTSS dataset that was published and ready for use.

eLTSS Community

The eLTSS initiative was driven by the requirements of the CMS Testing Experience and Functional Tools (TEFT) in community-based long-term services and supports (CB-LTSS) Planning and Demonstration Grant Program. This initiative formed a community of participants who represented a wide array of industry stakeholders to identify, test and validate a working dataset to be used for electronic capture and exchange of non-clinical CB-LTSS and HCBS data. Prior to the kickoff of the eLTSS initiative, a public Call for Participation was distributed to generate broad stakeholder interest and invite both individuals and organizations (in addition to the TEFT Grant recipients) to join the initiative. Interested parties...
identified themselves through the eLTSS “Join the Initiative” wiki page or joined meetings for which the participation information was available on a public-facing website.

All eLTSS community activities were facilitated using a public facing, transparent platform. Community meetings were convened as open teleconference webinars accessible to any individual or group interested in participating in the initiative. Initiative information, meeting schedules and updates, deliverables and artifacts were all published on the eLTSS wiki, a public-facing website, as well as distributed through community emails that could be forwarded and shared by anyone who received them.

The eLTSS stakeholder community consisted of over 300 participants, including TEFT Grantees, health professionals and advocates, associations, government agencies, contractors, IT vendors, CB-LTSS and HCBS service providers and other organizations. Refer to the figure below for a stakeholder breakdown by industry segment.

At the heart of the eLTSS community are the beneficiaries or individuals (adults, children, and seniors) who receive services and supports in their community so they can maintain a healthy, safe, and independent life. These services can include daily living assistance due to physical, cognitive, or chronic health conditions. In addition to the beneficiary and their advocates, eLTSS includes participation from broad stakeholder groups active in the development, implementation and oversight of an LTSS plan.
eLTSS stakeholders use information captured in LTSS plans to support non-clinical service delivery, and most rely on paper-based or non-integrated IT systems to generate, review and share the plans. The eLTSS Initiative has afforded the eLTSS community a framework to support the transition towards electronic and standardized LTSS plan creation and exchange.

**eLTSS Artifacts**

The work of the eLTSS team and its community members ultimately led to the development of the following artifacts:

1. **eLTSS Project Charter**: A document that describes the overall eLTSS project, including the challenge statement, scope, deliverables and timelines
2. **eLTSS Use Case and User Stories**: A document developed to capture the functional and/or business requirements of an eLTSS system; this information was subsequently used to inform technical specifications and workflows for the capture and exchange of eLTSS data
3. **eLTSS Environmental Scan**: A document consisting of exemplary technical solutions and frameworks, including their associated exemplar standards and technologies, that were identified through eLTSS Concert Series Presentations, independent research, and/or vendor engagement through outreach at industry conferences or other forums
4. **eLTSS Glossary**: A list of terms and definitions that were actively developed during Round 1 of eLTSS; final updates were made August 2015
5. **Tiered Approach for Piloting**: A document that provides a detailed description of the three incremental tiers for eLTSS pilot implementation
6. **Functional Requirements Matrix**: A document intended to capture and report the functional requirements for creating, sharing and administering an eLTSS Plan as defined as part of the eLTSS Use Case
7. **eLTSS Requirements Traceability Matrix**: A document used to capture and document all Round 2 pilot activities
8. **eLTSS Dataset Summary**: A document that provides an overview of how the eLTSS Dataset was created and how it is intended to be used; includes the final dataset
9. **eLTSS Briefing**: A synopsis of the technical background of the eLTSS initiative work and vision for next steps with a Standards Developing Organization (SDO)

**Pilots and Lessons Learned**

The eLTSS Pilot Program was guided by the functional requirements defined in the eLTSS Use Case. eLTSS pilot activities consisted of two rounds, the first of which focused on identifying the appropriate domains and data elements necessary for inclusion in an eLTSS Plan. Because many of the participating TEFT Grantees did not have the data infrastructure in place to support electronic information exchange, the pilot approach needed to be modified in order to accommodate the grantees’ current environments. That modification was a tiered approach to piloting that enabled the support teams to work with grantees on identifying “human readable” data elements first (those that can be understood between individuals) before trying to define machine or electronic system data.

Six state TEFT Grantees (Colorado, Connecticut, Georgia, Kentucky, Maryland and Minnesota) and four non-TEFT organizations (Therap, FEI, Netsmart and Medical Micrographics) participated in Round 1 pilots by submitting their current service plans and datasets. These materials were aggregated, reviewed and harmonized with participation from pilots and other stakeholders during weekly public
community All-Hands calls. At the end of Round 1, the community provided feedback and reached consensus on the Round 1 working draft dataset after a public comment period.

In order to provide real-world experience and feedback from multiple CB-LTSS stakeholders, including case managers, providers and beneficiaries, the Round 1 working draft eLTSS dataset was tested and validated during Round 2 Pilots by multiple pilot organizations, including six state TEFT Grantees (Colorado, Connecticut, Georgia, Kentucky, Maryland and Minnesota), a technology vendor (FEi Systems) and a service provider (Meals on Wheels). Each pilot organization used the eLTSS Requirements Traceability Matrix (RTM) to capture and report pilot results. In addition, the eLTSS dataset was mapped to the CMS HCBS Waiver Rule requirements for person-centered planning. This activity identified an additional eleven person-centered planning data elements that needed to be added to the dataset to support compliance with the rule requirements. As with Round 1, the Round 2 dataset went through a comment and consensus period prior to being published as a final version.

Pilot lessons learned included but were not limited to the following:

- CB-LTSS providers have varying levels of technological readiness and still used systems that are not standards-based.
- While some CB-LTSS providers have electronic systems, those technologies are not interoperable with other systems (e.g. waiver management systems or portals, other provider systems, PHR/EHR).
- Procurement processes and contract negotiations for new technologies need to start as early as possible.
- County and state agencies differ greatly from private providers in their priorities and operations.
- Use and adapt existing protocols and technologies whenever possible; do not invent what already exists.
- Selecting a group of committed providers that have a reason and the motivation to work together is critical to a cohesive, long-term pilot.
- Pilot participants should be given clear and consistent messaging, regular in-person contact, concise assignments and deadlines, and a reasonable amount of time to complete assigned activities.
- Pilot teams should be well-prepared to facilitate discussions and leverage strong opinions provided by diverse participants.
- Government agencies and vendors often have resource limitations that should be accounted for early in the project.
- EHR vendors may not have the resources or willingness to make changes to core products for a pilot or technology demonstration.
- CB-LTSS providers, case managers and beneficiaries see the benefits of having increased information exchange capabilities.

Conclusion

Through the development of the aforementioned artifacts and pilot activities, eLTSS successfully identified a valid dataset that can be used to support the electronic capture and exchange of non-clinical data related to the services provided to Medicaid beneficiaries.

As LTSS providers continue to invest in and modernize their existing IT infrastructures, it is imperative that they be able capture and exchange information in a standardized manner so they can more
effectively support the longitudinal care and service needs of the beneficiary. The adoption and use of a standardized eLTSS dataset will enable diverse and disparate IT systems to capture and share person-centered LTSS plan information in a seamless and secure manner. The published eLTSS dataset will ultimately allow service providers to support person-centered planning through the assembly and sharing of a beneficiary’s complete service plan in alignment with the CMS HCBS waiver rule requirements.

To learn more about the eLTSS Initiative (i.e. project charter, milestones, use cases, pilot guidance, pilot activities, eLTSS initiative lessons learned and recommendations) please read the complete eLTSS project summary located here: https://oncprojecttracking.healthit.gov/wiki/display/TechLabSC/eLTSS+Home