REQUEST

Date of Application: 10 (MM) / 26 (DD) / 2018 (YYYY)

PART I: Background Information

Name of the Organization: Qsource

Address Line 1: 3340 Players Club Parkway

Address Line 2: Suite 300

City, County, State, Zip Code: Memphis, Shelby County, Tennessee, 38125

Tax Identification Number: 62-0924699

CMS Certification Number, if applicable: ☐☐ – ☐☐☐☐

Medicaid Provider Number, if applicable: ☐☐ – ☐☐☐☐

Name of the Project Leader: Amanda Ryan, PharmD, BCGP

Address: 49 Music Square West, Suite 402

City, County, State, Zip Code: Nashville, Davidson County, Tennessee, 37203

Internet E-mail Address: aryan@qsource.org

Telephone Number: 615 – 244 – 2007

Mobile Number: 615 – 712 – 3758

Have other funding sources been applied for and/or granted for this proposal? ☐ Yes ☑ No

If yes, please explain/identify sources and amount.

PART II: Applicable to Certified Nursing Home Applicants

This section Not Applicable to Qsource

Name of the Facility: _____

Address Line 1: _____

Address Line 2: _____

City, County, State, Zip Code: _____

Telephone Number: ☐☐☐ – ☐☐☐ – ☐☐☐☐

CMS Certification Number: ☐☐ – ☐☐☐☐

Medicaid Provider Number: ☐☐ – ☐☐☐☐

Date of Last Recertification Survey: ____ /____ /_____
MM DD YYYY

Highest Scope and Severity Determination: (A – L) _____

Date of Last Complaint Survey: ____ /____ /_____
MM DD YYYY

Highest Scope and Severity Determination: (A – L) _____

Currently Enrolled in the Special Focus Facility (SFF) Initiative? ☐ Yes ☐ No

Previously Designated as a Special Focus Facility? ☐ Yes ☐ No

Participating in a Systems Improvement Agreement? ☐ Yes ☐ No

Administrator's Name: _____

Owner of the Nursing Home: _____

CEO Telephone Number: ☐☐☐ – ☐☐☐ – ☐☐☐☐

CEO Email Address: _____

Name of the Management Company: _____

Chain Affiliation (please specify) Name and Address of Parent Organization: _____

_____

Outstanding Civil Money Penalty? ☐ Yes ☐ No

Nursing Home Compare Star Rating: _____ (can be 1, 2, 3, 4 or 5 stars)

Date of Nursing Home Compare Rating: ____ /____ /_____
MM DD YYYY

Is the Nursing Home in Bankruptcy or Receivership? ☐ Yes ☐ No

If an organization is represented by various partners and stakeholders, please attach a list of the stakeholders in the appendix.

NOTE: The entity or nursing home which requests CMP funding is accountable and responsible for all CMP funds entrusted to it. If a change in ownership occurs after CMP funds are granted or during the course of the project completion, the project leader shall notify CMS and the State Agency within five calendar days. The new ownership shall be disclosed as well as information regarding how the project shall be completed. A written letter regarding the change in ownership and its impact on the CMP Grant application award shall be sent to CMS and the State Agency.

Part III: Project Category

Please place an "X" by the project category for which you are seeking CMP funding.

- [X] Direct Improvement to Quality of Care
- [ ] Resident or Family Councils
- [ ] Culture Change/Quality of Life
- [ ] Consumer Information
- [ ] Transition Preparation

☐ Training

☐ Resident Transition due to Facility Closure or Downsizing

☐ Other: Please specify _____

_____

Part IV: Funding Category

Please specify the amount and place an "X" by the funding category.

Amount Requested: $ 152,610.12

☐ $2,500 or less	☐ $10,001 – $25,000
☐ $2,501 – $5,000	☐ $25,001 – $50,000
☐ $5,001 – $10,000	☒ Over $50,000

Part V: Proposed Period of Support

From: 04 (MM) / 01 (DD) / 2019 (YYYY) (e.g. 06/01/2010) **To:** 03 (MM) / 31 (DD) / 2020 (YYYY) (e.g. 12/01/2010)

CEO Signature: 

Part VI: Purpose and Summary

Training and Assistance to Individualize Pain Management and Improve Opioid Safety in Nursing Homes

Vincent Davis, State Survey Agency Director
665 Mainstream Drive, 2nd Floor
Nashville, TN 37243

Dear Mr. Davis:

Thank you for allowing Qsource the opportunity to submit this application for civil money penalty (CMP) funding to help improve quality of life for nursing home residents in Tennessee. Approximately 70% of US nursing home residents with chronic pain are regularly prescribed opioids, yet studies and guidelines on medication use in older adults warn that these drugs may have particularly adverse effects—and may even be largely ineffective as pain treatment—in this vulnerable population. Opioids and ineffective pain management can contribute to the worsening of residents' quality of life and nursing homes' quality measures, including pain, falls, weight loss, and depression. With over 317 certified Medicare and Medicaid nursing homes and over 36,000 available beds in the state of Tennessee, skilled nursing facilities (SNFs) are a key area to focus efforts to treat pain as safely and effectively as possible.

Qsource's project proposes to provide training and technical assistance in promoting safe opioid use and individualized pain treatment at 20 SNFs in Tennessee. Through a 12-month, comprehensive program that includes in-person training of SNF staff members on safer opioid use and non-opioid pain management; implementing the use of Comfort Menus to provide alternative pain treatment customized to residents' individual needs; and technical assistance to provide continued support and guidance, our project seeks to improve clinical outcomes associated with SNFs' 13 long-stay quality measures. The success of the project will be evaluated through four process and four outcome measures, including the number of non-opioid pain treatments offered at SNFs and patient satisfaction with pain management.

Qsource is a 501(c)3 nonprofit corporation with more than 40 years of successful quality improvement work with a wide array of clinicians, institutional providers, beneficiaries, and other community-based stakeholders. With our background in SNF assistance, including our facilitation of a pilot project on providing individualized therapies for pain management, Qsource has the skill and experience to facilitate effective care transformation and overcome potential barriers to participation and implementation.

This project will use $152,610 of CMP funds beginning April 1, 2019 and running through March 31, 2020 (period of 1 year). No non-CMP funds are expected to be used in this project. Qsource will teach teams at each nursing home to monitor and maintain new processes to ensure project sustainability beyond the funded timeframe.

Sincerely,

Dawn M. FitzGerald, MS, MBA
Chief Executive Officer

Part VII: Expected Outcomes

Project Abstract

As a Quality Innovation Network-Quality Improvement Organization (QIN-QIO), Qsource has worked with skilled nursing facilities (SNFs) across the states of Tennessee, Indiana, and Kentucky to ensure that patients receive safe and effective long-term care that maintains or improves their quality of life. Since November 2002, Qsource has assisted SNFs in improving resident care as measured by performance in quality measures developed as part of the Nursing Home Quality Initiative (NHQI). For a pilot project on providing individualized pain management therapies, Qsource has also assisted several nursing homes (NH) in promoting safe opioid use. Through these experiences, we have found that customizing pain treatment and improving opioid safety can directly affect residents' quality of life and NH quality measures, yet many NHs need additional support to effectively implement such efforts.

Qsource staff member Amanda Ryan, PharmD, BCGP, will be responsible for the success of the proposed project, which targets the Direct Improvement to Quality of Care focus area. Along with Qsource Quality Improvement Specialists Sarah Sutherland, MBA, RT(R) and Lindsey Jett, MALT, CPhT, Ryan will work with 20 SNFs in Tennessee over a 12-month period to implement a comprehensive program of evidence-based interventions and activities to help SNFs improve pain management options and opioid use safety. The project will consist of three main components:

1. In-person training for a pool of staff at SNFs, called SNF Instructors, on individualized and non-opioid approaches to pain management;
2. Teaching these SNF Instructors to train other staff at their facilities and collaboratively examine and make improvements to their facilities' processes for pain management; and
3. Increasing SNFs' offerings of alternative options for pain treatment, including Comfort Menus.

Additional components include providing SNFs with one-on-one technical assistance, networking opportunities, and resources throughout the project timeline. The project will seek to improve clinical outcomes associated with the 13 long-stay quality measures of the Centers for Medicare & Medicaid Services' (CMS's) NH composite score. The project's success will be evaluated through improvement in four process and four outcome measures, which include: change in SNF Instructors' pain management knowledge before and after in-person training (measured via pre- and post-training tests administered by Qsource staff); the number of non-opioid pain treatments offered at each SNF; the percentage of residents with opioid orders at each SNF; and patient satisfaction with pain management as measured by the Pain, Enjoyment and General Activity (PEG) Scale. SNF Instructors will collect and submit these data to Qsource monthly. While this project is only intended to decrease the use of opioids when they are not needed and may not result in overall decreased use, we will also monitor the opioid prescribing rates in participating facilities. In addition, Qsource will monitor the composite scores of participating NHs.

Statement of Need

Opioid use is common among NH residents, with approximately 70% of residents with chronic non-cancer pain receiving regularly scheduled opioids. In addition, NH residents are more commonly prescribed high-potency opioids compared to community-dwelling older adults. Although long-term studies on opioid efficacy for chronic non-cancer pain in older adults are lacking, some studies have shown that opioid use is often not associated with effective pain relief, increased function, or greater quality of life (Naples, Gellad and Hanlon 2016). Opioids can cause a number of negative effects in all populations, but due to special concerns such as physiological changes and polypharmacy, the elderly are even more susceptible to adverse effects. Opioids and ineffective pain management can contribute to the worsening of residents' quality of life as well as NHs' quality measures, including (but not limited to) pain, falls, weight loss, and depression (Chau, Pai and Cho 2008).

Guidelines on medication use in the elderly urge caution with opioids. The 2015 Beers Criteria state that opioids are potentially inappropriate in older adults with a history of falls or fractures due to impaired psychomotor function (American Geriatrics Society 2015). The Beers Criteria further recommend against using opioids in combination with two or more central nervous system drugs including benzodiazepines, hypnotics, and certain antidepressants. The 2015 STOPP/START Criteria for Potentially Inappropriate Prescribing in Older People also recommend against the use of strong opioids for mild pain (O'Mahony, et al. 2015). Moreover, a key message in the 2016 Centers for Disease Control's (CDC's) "Guideline for Prescribing Opioids for Chronic Pain" is that, given the lack of long-term evidence and potential risks in the elderly, care providers should consider other options in addition to or instead of opioids when treating chronic pain. The CDC Guideline states that patients should receive appropriate pain treatment based on a careful consideration of the benefits and risks of treatment options; that non-opioid treatments are preferred; and that opioids should be combined with non-opioid treatments when they are used. The CDC Guideline recommends special consideration for certain patient populations, such as the elderly, where pain might go unrecognized or may be treated inadequately (Dowell, Haegerich and Chou 2016).

Unfortunately, effectively implementing such guidelines can be challenging for many SNFs, which face obstacles ranging from staff members' lack of knowledge of alternative pain therapies to the perception among patients, families, and the culture at large that opioids are the only or most effective treatment for chronic pain. Yet, as the healthcare community works together to help improve opioid safety across the nation, the SNF patient population is a key area to focus such efforts. As the QIN-QIO for the state of Tennessee, Qsource helps serve the needs of approximately 820,040 Medicare fee-for-service beneficiaries. As beneficiaries age, they become increasingly susceptible to multiple health conditions that could result in their placement in SNFs, whether for short-stay rehabilitation or permanent placement. With over 317 certified Medicare and Medicaid NH and over 36,000 available beds in the state of Tennessee (CMS 2018), we believe our proposed project can ultimately make a profound difference both in processes of care for providers and in quality of life for a large number of patients.

Through our experience in SNF assistance, including our facilitation of a pilot project on providing individualized therapies for pain management in SNFs, Qsource has devised a number of effective strategies to mitigate the potential barriers to implementing this project. These issues and their solutions are listed in **Table 1**.

Table 1. Potential Barriers and Mitigation Strategies

Possible Barrier	Mitigation Strategy
Resident or family resistance to non-opioid, individualized pain treatment	Conduct SNF training on communication strategies for addressing pain control with patients and families, including CDC's "Module 3: Communicating with Patients" in Applying CDC's Guideline for Prescribing Opioids training: https://www.cdc.gov/drugoverdose/training/communicating/index.html. These include approaching the patient and family with compassion, using reflective listening, and motivational interviewing.
Staff resistance to participation in the program	Per federal law, SNFs are required to establish and maintain Quality Assurance and Performance Improvement (QAPI) in their facilities (CMS 2016). Qsource will teach SNFs how they can use the proposed project to fulfill this requirement. Qsource will also leverage longstanding relationships with SNFs to assist with project recruitment.
Changing the longstanding culture that opioids are the *only*	Provide education on specific indications requiring the use of opioids, the risks and benefits of different pain management strategies in the

Table 1. Potential Barriers and Mitigation Strategies	
Possible Barrier	**Mitigation Strategy**
or most effective treatment for residents' pain	elderly population, and the importance of offering individualized treatments for both acute and chronic pain
Lack of SNF staff available to participate in a project that is neither required nor mandated	Promote a multidisciplinary team approach at the facility level to distribute work among staff and gain perspective from multiple types of healthcare professionals; inviting two staff members to in-person training in case of turnover
Additional staff workload burden (e.g., documentation and medication administration tasks)	Assist facilities in implementing processes to reduce administrative burdens, such as checklists for admitting a new resident with chronic pain
Difficulty assessing pain and determining treatment preferences in nonverbal residents	NHs will be encouraged to use appropriate pain assessments for nonverbal residents, such as the Pain Assessment in Advanced Dementia Scale (http://dementiapathways.ie/_filecache/04a/ddd/98-painad.pdf). This will help monitor the effectiveness of pain treatments, including from comfort menus. Nonverbal residents may be able to indicate which comfort menu items they prefer, especially if they are shown those items, and will be encouraged to do so if they are able. NHs may also rely on residents' historical preferences or engage families in discussions about preferences.

Program Description

Purpose and Outcome

Targeting the Direct Improvement to Quality of Care focus area, the proposed project aims to implement education, training, and alternative pain management options to improve resident quality of life as well as improve clinical outcomes associated with SNFs' 13 long-stay quality measures. These goals will be accomplished by 1) developing a pool of staff at SNFs, called SNF Instructors, who will be trained on individualized approaches to pain management; 2) teaching these Instructors to train other staff at their facilities to collaboratively examine and make improvements to their facilities' processes for pain management; and 3) increasing SNFs' offerings of non-opioid options for pain, including Comfort Menus. The Qsource team will use QAPI principles to improve processes and sustain changes, as well as teach SNFs how to use the project to fulfill QAPI requirements. The project's desired outcome is to improve pain management safety and SNF residents' quality of life by tailoring pain treatment to their specific causes of pain and individual needs.

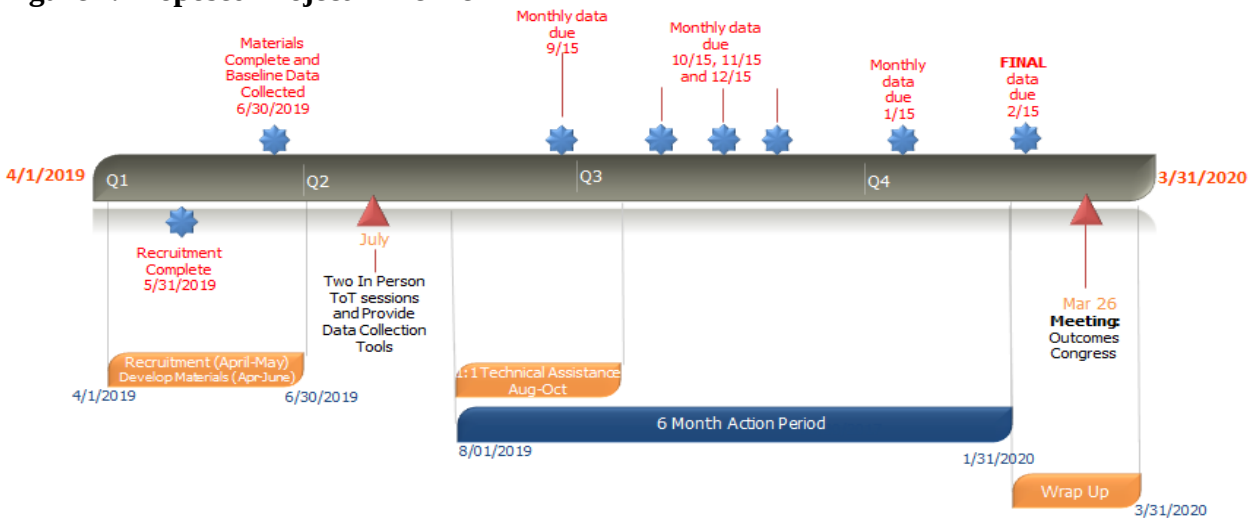
Participants and Program Components

Our project timeline, which illustrates a broad overview of the project's components, is included as Figure 1.

Qsource will recruit 20 SNFs drawn from relationships built during previous quality improvement projects, although any SNFs that are willing to commit to a 12-month project to improve safe opioid use and pain management will be eligible for recruitment. Qsource will use strategies similar to those used previously to recruit for our pilot opioid project and other NH quality improvement activities. These include leveraging existing relationships to directly recommend the project to NHs, sending marketing communications via email or social media, sharing the opportunity during other Qsource webinars, and sharing success stories from pilot NHs to encourage participation. *When recruiting NHs that are part of a corporate chain, Qsource will also, as it has for past projects, obtain buy-in from corporate officials through established relationships. We will provide information about the project goals and deliverables*

in writing to corporate officials. Any Tennessee NH that was not part of Qsource's pilot project may participate, and recruitment will be on a first-come, first-served basis.

Figure 1. Proposed Project Timeline



Qsource will prioritize recruitment of NHs that need assistance with quality measures related to opioids. Qsource will also aim to include at least one NH with a one-star rating. The most important criteria for NH recruitment will be a strong interest in improving opioid safety and pain management along with the ability to attend the in-person training and participate in the entire project.

During months one and two (projected start date 4/1/19), Qsource will develop marketing tools to describe and promote the project. We will use these materials to contact the more than 240 NHs that we have worked with previously in the Leading and Sustaining Systemic Change Collaborative and in reporting C. difficile infections for their facilities. Qsource will also reach out to our corporate contacts at larger NH chains in Tennessee to invite their homes to participate in the project. The two-month recruitment timeframe will also give NHs time to block off their schedules for the in-person training session. Qsource will track and report the number of NHs contacted and the number recruited during months one and two.

Qsource has strong relationships with a large number of Tennessee NHs, which showed a great deal of interest and active participation in our pilot project on opioids. For these reasons, we feel confident that we can recruit 20 NHs for this project. However, if recruitment does fall short, we will partner with the Tennessee Health Care Association and/or the state survey agency for recruitment. Qsource successfully partnered with both organizations when recruiting for the C. difficile NH project.

Eligible SNF Instructors will be any staff members from recruited SNFs who are able to commit to an in-person training session and follow-up activities, prepared to share their knowledge with other staff at their facilities, and willing to serve as the project champion for their facilities. Qsource will encourage two staff members per facility to participate to mitigate any potential staff turnover.

Qsource staff members Amanda Ryan, Sarah Sutherland, and Lindsey Jett will use the Training of Trainers (ToT) Components from the CDC's ToT Model (CDC n.d.), adapted for the SNF audience, to conduct **two in-person training sessions** for Instructors from the recruited SNFs. The SNF Instructors will be required to attend one of the two trainings, which will be held in convenient areas of Tennessee to reduce participant travel time. Before the training session, the Qsource team will administer a **pre-assessment** to determine participants' knowledge gaps in topics to be covered during the training, including CDC opioid guidelines and targeted pain therapies. The results will be used to refine the content

of the course. The Qsource team will also distribute pre-work, an agenda, and a facilitation manual to prepare participants for the training topics. *CMS regional office will also be provided a facilitation manual.*

During training, Qsource staff will provide opioid education based on the "CDC Guideline for Prescribing Opioids for Chronic Pain" (Dowell, Haegerich and Chou 2016), and will employ adult learning principles such as drawing upon participants' experience and sharing practical examples of concepts. Qsource staff will also lead participants through **skills practice and action planning** using Team Strategies & Tools to Enhance Performance & Patient Safety (TeamSTEPPS) to support teamwork and communication skills and help them share their learning with other staff when they return to their facilities (AHRQ 2018). Data on facilities' pain management processes will be collected monthly during a **six-month action period** following the in-person training.

*Following the in-person training, Qsource will offer a **summary webinar** to participating facilities. The webinar will include a recap of the in-person training with specific focus on next steps for the project, including how to use Comfort Menus and the PEG Scale. Qsource will invite and encourage participation from the SNF Instructor, administrator, medical director, director of nursing, consultant pharmacist, lead certified nursing assistant, and the long-term care ombudsman.*

Planned follow-up support will take place via **one-on-one individualized technical assistance sessions** that will be conducted once for each participating NH. The SNF Instructor at each facility will participate, along with any other staff he/she invites to the session. *Prior to the individualized sessions, Qsource will determine if each facility has a written pain management program and ask the facility to share it. If no such program exists, Qsource will encourage its adoption during the session.* Qsource will be collecting monthly data which will allow for identification of difficulties in project implementation. Depending on the NHs' needs, individualized technical assistance could include email, phone, webinar, or onsite visits to work through the specific issues and customize implementation approaches, as needed. Additional topics covered in these sessions will be tailored to each individual NH, but each initial session will include the following:

1. Recap of in-person training session
2. Review of project data
3. Review of NH-specific processes for obtaining specific pain indications, especially for residents on opioids, with recommendations from Qsource on options to improve them
4. *Verification of pain assessment scales used, along with recommendations to use a standard 0 to 10 scale or the Pain in Advanced Dementia Scale (link in Table 1) with scores also ranging from 0 to 10*
5. Review of specific pain medication scenarios (identifying resident information redacted) with recommendations from Qsource on how to address them to improve resident comfort and safety
6. Implementing a Comfort Menu at the NH
7. Discussion of resources available to meet specific facility needs

In addition, the Qsource team will provide **networking opportunities and resources** to strengthen the link between emerging opioid best practices and NHs interested in improving individualized pain management among residents. These opportunities will be offered via face-to-face interaction during the in-person training sessions and via email during the six-month action period. The project will conclude with an **outcomes congress** to celebrate successes and share lessons learned with all participating NHs.

Evidence for Individualizing Pain Management and Other Training Topics

The CDC recommends nonpharmacological and non-opioid pharmacology as preferred therapies to treat chronic pain (Dowell, Haegerich and Chou 2016). Many such therapies, including alternative medication, environmental modification, and heat and cold, are supported by evidence in the literature

(Keilman 2015). One method for making these therapies available to patients is through the use of a Comfort Menu. Hospitals such as the Cleveland Clinic, Banner Health (Colorado), and the University of Colorado have offered Comfort Menus, and positive results have included facilitation of pain goal-setting, increased patient-nurse communication about pain, and increased awareness of non-pharmacological pain therapies. Patients use the menus for relaxation and pain relief, most frequently choosing music to help relax (Cleveland Clinic 2014, Brunson, Kleven and Ihrig 2016). Qsource innovated this concept by applying it to SNFs during its pilot project in early 2018, which led participating SNFs to use new non-opioid pain management strategies. (See Figure 2.)

Definitions, sources, and evidence for other pain management-related methodologies and topics that Qsource will cover in training and technical assistance are listed in **Table 2**.

Table 2. Sources and Evidence for Individualized Pain Management

Program Topic	Source/Evidence Base/Purpose
How to differentiate among specific causes of pain	This information is critical to developing an individualized pain treatment plan by narrowing down options for pain treatment that are effective for the specific cause of the pain.
"CDC Guideline for Prescribing Opioids for Chronic Pain" (Dowell, Haegerich and Chou 2016)	The Guideline, which urges that care providers should consider other options in addition to or instead of opioids when treating chronic pain, provides the framework for training SNFs on managing pain. *A copy of the Guideline will be provided to each facility's medical director and consultant pharmacist.*
Documenting specific pain indications for residents on opioids and the essential components of a specific indication	In order to individualize pain treatment based on drug mechanism of action, a specific indication needs to be documented. The essential components are pain location and cause.
Recommended treatments for different types of pain	Drug mechanism of action determines recommended pain treatment. Examples: NSAIDs are effective for inflammatory pain, and gabapentinoids are effective for neuropathic pain.
How opioids and ineffective pain management can negatively affect quality measures and quality of life	Opioids can cause orthostatic hypotension and CNS depression, increasing risk of falls. They can cause sedation, leading to increased risk of pressure ulcers, and nausea and vomiting, leading to weight loss.
Using Comfort Menus to provide alternative pain management options	Previous work at Cleveland Clinic, Banner Health (Colorado), and University of Colorado has successfully achieved improved communication about pain with patients, the ability to set realistic pain goals, and awareness of non-pharmacologic therapies. Qsource also achieved increased availability of non-opioid pain management strategies with SNFs in a pilot project on pain management.
Communicating with residents and families about different pain management options	Guidelines can be found in the CDC's "Module 3: Communicating with Patients" in *Applying CDC's Guideline for Prescribing Opioids* training: https://www.cdc.gov/drugoverdose/training/communicating/index.html
Appropriately tapering opioids according to residents' needs	Guidelines can be found in CDC's *Pocket Guide: Tapering Opioids for Chronic Pain* at https://www.cdc.gov/drugoverdose/pdf/clinical_pocket_guide_tapering-a.pdf

Table 2. Sources and Evidence for Individualized Pain Management	
Program Topic	**Source/Evidence Base/Purpose**
	A copy of this resource will be provided to each facility's medical director and consultant pharmacist.

Part VIII: Results Measurement

Over the course of the proposed project, Qsource will partner with participating SNFs to track four outcome measures and four process measures. As outlined in **Table 3**, the first outcome measure is a change in the SNF Instructors' pain management knowledge before and after in-person training, which will demonstrate whether the training was delivered effectively. Qsource will track the number of participants taking the assessments as well as the aggregate number of questions answered correctly on the pre- and post-training assessments.

The second outcome measure is the number of non-opioid treatments offered for pain at participating facilities. SNF Instructors will track the indications for use of opioids in their facilities and whether the facility is offering a Comfort Menu, and then submit the data to Qsource monthly via Smartsheet. Specific indications will help determine which therapies are most appropriate for individual residents, and the Comfort Menu option will allow SNFs to offer multiple non-opioid treatments efficiently and cost-effectively. *Qsource will encourage facilities to document Comfort Menu use in the resident's care plan, as applicable, to ensure consistent use of non-opioid treatments. For facilities utilizing a Comfort Menu, Qsourse will recommend inclusion of items already available at the facility and create a custom Comfort Menu to meet the facility's needs. We will also recommend additional items that can be included at low cost to the facility.*

The third outcome measure is the percentage of residents with an order for opioids, and the final outcome measure is patient satisfaction as measured by the PEG Scale from the CDC Guideline. *(Cognitively impaired residents will be excluded from this measure since answers cannot be obtained for all elements of the scale.)* The PEG scale will be included on facilities' Comfort Menus and will be used to determine resident satisfaction with pain management.

Qsource will submit quarterly progress reports on these measures to CMS and the Tennessee Department of Health.

Table 3. Outcome and Process Measurement	
Outcome Measure A: Change in Pain Management Knowledge Before & After In-Person Training	
Numerator	# of participants with correct answers on pre-test or post-test
Denominator	# of total participants on pre-test or post-test
Data Source	Collected and tracked by Qsource via hard copy test before and after in-person training session
Goal	25% aggregate improvement on all questions from pre-test to post-test
Process Measure A.1.: Number of In-Person Training Participants Completing Pre-Test	
Numerator	N/A
Denominator	N/A
Data Source	Collected and tracked by Qsource via hard copy test before in-person training session
Goal	At least 20, with at least one participant from all 20 SNFs
Process Measure A.2.: Number of In-Person Training Participants Completing Post-Test	
Numerator	N/A
Denominator	N/A
Data Source	Collected and tracked by Qsource via hard copy test after in-person training session

Table 3. Outcome and Process Measurement	
Goal	At least 20, with at least one participant from all 20 SNFs
Outcome Measure B: Number of Non-Opioid Pain Treatments Offered	
Numerator	Total # of non-opioid treatments available facility wide
Denominator	# of participating facilities
Data Source	Submitted by SNF Instructor monthly
Goal	25% RIR
Process Measure B.1.: Proportion of Specific Pain Indications for Residents on Opioids	
Numerator	# of specific opioid indications
Denominator	Total # of opioid indications
Data Source	Submitted by SNF Instructor monthly
Goal	15% RIR
Process Measure B.2.: Proportion of SNFs Using a Comfort Menu	
Numerator	Total # of participating SNFs that are using a comfort menu
Denominator	# of participating SNFs
Data Source	Submitted by SNF Instructor monthly
Goal	50% of participating SNFs
Outcome Measure C: Percent of Residents with Opioid Orders	
Numerator	Total # residents with opioid orders
Denominator	# of residents assessed
Data Source	Submitted by SNF Instructor monthly
Goal	5% RIR
Outcome Measure D: Patient Satisfaction with Pain Management as Measured by the Pain, Enjoyment and General Activity (PEG) Scale (Dowell, Haegerich and Chou 2016)	
Numerator	Total score from all three elements
Denominator	# of residents assessed
Data Source	Submitted by SNF Instructor monthly
Goal	5% RIR

Part IX: Benefits to Nursing Home Residents

As outlined in Table 2, this project will benefit and enhance the well-being of NH residents in myriad ways. Because opioids can contribute to adverse events such as falls, pressure ulcers, and weight loss, individualizing pain management based on residents' specific indication and needs will improve their quality of life.

Targeted use of opioids combined with non-opioid pain treatments proved to be successful in a two-part pilot project conducted by Qsource between January 2017 and May 2018.[1] During both pilot phases, the proportion of specific opioid indications increased from 42% to 58%, allowing the SNFs to target pain treatment to residents' individual needs. Relative rate of opioid use decreased by 7.5% in pilot Phases I and II combined. In addition, the number of non-opioid treatments offered per facility more than tripled through the use of Comfort Menus and other interventions. Six NHs (with a total of 345 long-stay residents) participated in Phase I of the pilot, which took place between January and September 2017. During this period, the aggregate CMS NH composite score for these six homes improved from 7.89 to

[1] *The pilot was conducted as part of the CMS 11th SoW and ended in May 2018. The work is no longer being conducted.*

6.63, indicating improved overall quality of care. The composite score consists of 13 long-stay quality measures and reflects the cumulative effect of systems improvement in long-term care settings. Of the 13 measures, the four related to opioids that improved most were Weight Loss (10 fewer patients with weight loss), Moderate to Severe Pain (8 fewer patients reporting), High-Risk Pressure Ulcers (8 fewer patients with pressure ulcers), and Falls with Major Injury (8 fewer patient falls).

The pilot phases led to numerous positive outcome stories for both residents and SNFs. In one example, a young male resident decreased his opioid pain medication by 25% during the project. Music therapy and other activities, such as coloring, were used to help manage his pain and help him adjust to the taper in opioids. Since then, he has been participating in more activities around the NH as well as learning to read and going outside. He now expresses that he is experiencing a much better quality of life and feels better than before his opioid medication was reduced.

Nazareth Home Clifton, an SNF in Louisville, KY, worked with Qsource during Phase II of the project to develop a "Menu of Personal Comfort Items" to distribute to its residents to promote alternatives to medication for discomfort and pain. The menu included a short pain assessment using the PEG scale for the resident to complete and a list of "comfort items" available, such as a visit from a therapy animal, a massage or a warm blanket. An example of the Comfort Menu is shown in **Figure 2**.

Figure 2. Example of Pilot Phase Comfort Menu

Using this resource, along with full participation in the pilot project, Nazareth Home Clifton decreased the number of residents on opioids from 42% to 30% and greatly reduced the number of residents with incontinence. Based on its efforts with Qsource during Phase II of the pilot project, Nazareth Home Clifton received the *Innovation in Care Award* from LeadingAge at its annual meeting in Kentucky. (Letter of Support from Nazareth available upon request.)

Part X: Consumer/Stakeholder Involvement

NH staff will be vital participants in the development and implementation of this project. A designated staff member from each NH will attend the in-person training event to become an SNF Instructor for his or her SNF. These instructors will then be expected to spread what they have learned to staff at their respective SNFs to ensure sustainability of the project. Front line staff can be involved at the discretion of each SNF Instructor and leadership at that home, *and Qsource will invite and encourage consultant pharmacists and medical directors from each facility to participate.* Qsource will provide binders with written training information to take back to each NH. Each facility will be encouraged to work with

their staff development coordinator to disseminate the information learned during in-person training. Facilities may also invite their staff to its one-on-one technical assistance session with Qsource to enhance training.

Residents and families are key partners in determining individualized pain treatments, and in-person training will include evidence-based communication strategies for SNF Instructors to use when collaborating with patients and families on pain management. In addition, Comfort Menus will put nonpharmacological pain management options in the hands of patients and families to allow them to determine which methods work best for them. Staff will be encouraged to chart comfort menu items the same way they chart other interventions for pain, and to report these interventions during routine shift change communication. Resident wishes will be assessed during routine pain assessments or if there is a change in a resident's pain management status.

Part XI: Funding

The Excel spreadsheet, including budget expenses, is viewable as an attachment as well as uploaded separately.

Part XII: Involved Organizations

Qsource is the only organization that will receive funds through this project and does not plan to hire subcontractors to perform any part of the work. Qsource will carry out and is responsible for all components of the project. Our contact information is:

Qsource
Dawn M. FitzGerald, CEO
3340 Players Club Parkway, Suite 300
Memphis, Tennessee 38125
dfitzgerald@qsource.org
615.574.7250

Conflict of Interest Prohibition Statement

Qsource does not anticipate any conflict of interest in being awarded or performing the proposed project.

Attestation Statement

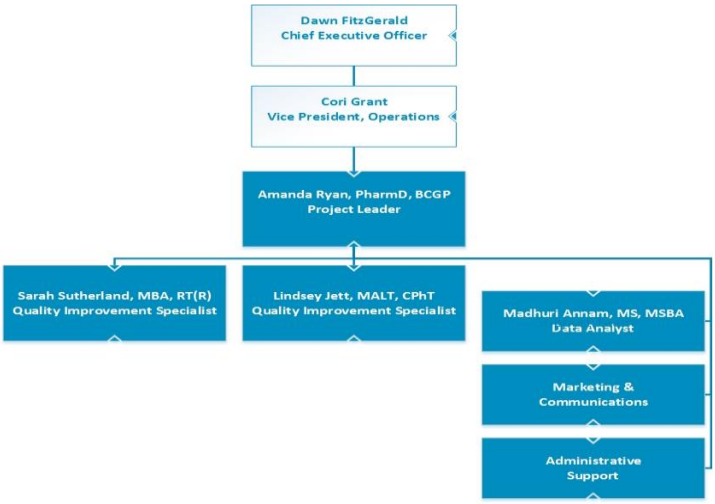
Qsource will use civil money penalty funds solely for the intended purpose of the grant proposal: to work with Tennessee certified nursing homes.

Key Personnel

Qsource CEO Dawn FitzGerald guides our organizational mission and reports to the Board of Directors. Project Leader, Amanda Ryan, PharmD, BCGP, reports to the Vice President, Operations, Cori Grant, PhD, and will manage all project deliverables, services, pharmacologic subject matter and frontline staff. All proposed staff have extensive quality improvement, analytic and/or nursing home expertise, yielding consistent results as demonstrated through performance measure monitoring. Data Analyst, Madhuri Annam, MS, MSBA, will conduct healthcare data analyses and validation, while our administrative support team will provide meeting planning and clerical support duties.

The Project Leader and Quality Improvement Specialists Sarah Sutherland, MBA, RT(R), and Lindsey Jett, MALT, CPhT, will be primarily responsible for communications with nursing homes, as well as QI technical assistance activities. Figure 3 includes the organization chart for the Qsource team.

Figure 3. Qsource Project Organizational Chart—Senior Leadership & Project Team



Personnel Roster

Table 4 lists the Qsource project team members assigned to meet project requirements.

Table 4. Project Team Roster, Biosketch & Job Duties

Staff	Biosketch	Project Job Duties
Project Leader **Amanda Ryan, PharmD, BCGP**	♦ Active TN Licensed Pharmacist since 2008 ♦ 4 years' Clinical Pharmacy Specialist and Medication Safety Subject Matter Expert for Qsource, atom Alliance ♦ 6 years' Long Term Care Pharmacy consultant/Pharmacist ♦ Currently leads opioid initiative for 5 state region ♦ Management of medication therapy for skilled nursing facilities	**Reports to VP, Operations** ♦ Monitor overall project performance and deliverables ♦ Develop, direct, monitor and facilitates all project activities ♦ Provide expertise on pharmacologic approaches and interventions ♦ Collaborate with stakeholders on regional opioid activities ♦ Develop and maintain internal project data controls and quality control (QC) plans
QI Specialist **Sarah Sutherland, MBA, RT(R)**	♦ Quality Improvement Advisor/Specialist 4 years ♦ MBA, Healthcare Administration ♦ 7 years of success in Radiology, Healthcare Information Technology and Performance Improvement in Acute Care Environments ♦ Lean Six Sigma Green Belt ♦ Facilitator of projects: RCA education, Falls, CDI, CAUTI, Sepsis, Medication Safety, Health IT Safety ♦ Co- facilitator project to improve safe opioid use in the SNF setting	**Reports to Project Leader** ♦ Provide comprehensive program of evidence-based pain management interventions and activities to SNFs ♦ Perform individualized quality improvement education/ coordination/technical assistance functions through promotion of project activities ♦ Foster relationships between existing and newly identified partners to align activities and strategies to reduce duplication of effort
QI Specialist	♦ Quality Improvement Advisor/Specialist 3 years	**Reports to Project Leader** ♦ Provide comprehensive program of

Table 4. Project Team Roster, Biosketch & Job Duties

Staff	Biosketch	Project Job Duties
Lindsey Jett, MALT, CPhT	♦ Bachelor's degree in Biology (2005); Master's degree in Learning and Teaching (2008) ♦ Co-facilitator: Qsource pilot project to improve safe opioid use ♦ Facilitates the Statewide Taskforce for Opioid Prevention in Tennessee	evidence-based pain management interventions and activities to SNFs ♦ Perform individualized quality improvement education/ coordination/technical assistance functions through promotion of project activities ♦ Foster relationships between existing and newly identified partners to align activities and strategies to reduce duplication of effort.
Data Analyst **Madhuri Annam, MS, MSBA**	♦ 12 years' experience in data analysis ♦ 8 years in healthcare data analysis and performance measurement for quality improvement ♦ Analyst for 5-state regional Nursing Home Quality Improvement team ♦ Extensive experience developing provider progress reports, custom data sets	**Reports to Project Leader** ♦ Analyze data to identify trends, opportunities for improvement and progress toward goals ♦ Manage databases ♦ Ensure that metrics for each deliverable are met ♦ Contribute to all required reports
Marketing & Communications Team	♦ Experience in tool development and marketing/communications, including opioid web messaging and website ♦ Proven ability to provide audience appropriate healthcare educational tools	**Reports to Project Leader** ♦ Provide creative and strategic insight into the development and promotion of marketing and educational materials ♦ Coordinate strategic messaging with project team for maximum reach
Administrative Support	♦ Experience in the healthcare field including project coordinator and office assistant positions ♦ Experienced meeting planner and facilitator	**Reports to Project Leader** ♦ Provide administrative and project support to all team members ♦ Assist in meeting/training logistical planning

References

AHRQ. *TeamSTEPPS*. 2018.

American Geriatrics Society. "American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults." *Journal of the American Geriatrics Society*, 2015: 1-20.

Brunson, C, S Kleven, and H Ihrig. "Does a Pain and Comfort Menu Have the Power to Improve HCAHPS Pain Satisfaction Scores? Results from Two Urban Organizations." *ASPMN.org*. 2016.

CDC. "Understanding the Training of Trainers Model." *CDC.gov*.

Chau, DL, L Pai, and LM Cho. "Opiates and the Elderly: Use and Side Effects." *Clinical Interventions in Aging* 3, no. 2 (2008): 273-278.

Cleveland Clinic. "Menu Offers à la Carte Pain Management Therapies." *Consult QD*. August 5, 2014.

CMS. *Nursing Home Compare Datasets*. Data.Medicare.gov, September 26, 2018.

—. "QAPI Description and Background." *CMS.gov*. 2016.

Dowell, D, T Haegerich, and R Chou. "CDC Guideline for Prescribing Opioids for Chronic Pain." *Morbidity and Mortality Weekly Report* 65, no. 1 (2016): 1-49.

Keilman, L. *Compendium of Evidence-Based Nonpharmacologic Interventions for Pain in Older Adults*. East Lansing: Michigan State University, College of Nursing, 2015.

Naples, JG, Walid F Gellad, and JT Hanlon. "Managing Pain in Older Adults: The Role of Opioid Analgesics." *Clinics in Geriatric Medicine* 32, no. 4 (November 2016): 725-735.

O'Mahony, D, D O'Sullivan, S Byrne, and et al. "STOPP/START Criteria for Potentially Inappropriate Prescribing in Older People: Version 2." *Age and Ageing* 44, no. 2 (March 2015): 213-218.

ATTACHMENT 2
GRANT BUDGET
(BUDGET PAGE 1)

Qsource

APPLICABLE PERIOD: The grant budget line-item amounts below shall be applicable only to expense incurred during the period beginning April 1, 2019, and ending March 31, 2020.

POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY [1] (detail schedule(s) attached as applicable)	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1	Salaries[2]	$70,248.00	$0.00	$70,248.00
2	Benefits & Taxes	$30,564.90	$0.00	$30,564.90
4, 15	Professional Fee/ Grant & Award [2]	$0.00	$0.00	$0.00
5	Supplies	$451.76	$0.00	$451.76
6	Telephone	$0.00	$0.00	$0.00
7	Postage & Shipping	$0.00	$0.00	$0.00
8	Occupancy	$0.00	$0.00	$0.00
9	Equipment Rental & Maintenance	$0.00	$0.00	$0.00
10	Printing & Publications	$0.00	$0.00	$0.00
11, 12	Travel/ Conferences & Meetings[2]	$6,240.94	$0.00	$6,240.94
13	Interest [2]	$0.00	$0.00	$0.00
14	Insurance	$0.00	$0.00	$0.00
16	Specific Assistance To Individuals[2]	$0.00	$0.00	$0.00
17	Depreciation [2]	$0.00	$0.00	$0.00
18	Other Non-Personnel [2]	$0.00	$0.00	$0.00
20	Capital Purchase [2]	$0.00	$0.00	$0.00
22	Indirect Cost (% and method)	$45,104.52	$0.00	$45,104.52
24	In-Kind Expense	$0.00	$0.00	$0.00
25	**GRAND TOTAL**	$152,610.12	$0.00	$152,610.12

[1] Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, Uniform Reporting Requirements and Cost

[2] Applicable detail follows this page if line-item is funded.

ATTACHMENT 2 (continued)
GRANT BUDGET LINE-ITEM DETAIL
(BUDGET PAGE 2)

SALARIES	Hourly Rate		Annual Hours						AMOUNT
Clinical Pharmacy Specialist	$ 58.51	x	900	x		+			$52,655
Quality Improvement Specialist	$ 33.92	x	200	x		+			$6,784
Quality Improvement Specialist	$ 40.31	x	200	x		+			$8,062
Administration (ADM)	$ 16.38	x	30	x		+			$492
Analytics (ANA)	$ 38.63	x	30	x		+			$1,159
Marcom (MCM)	$ 36.57	x	30	x		+			$1,097
ROUNDED TOTAL									$70,248

PROFESSIONAL FEE/ GRANT & AWARD	AMOUNT
N/A	$0.00
ROUNDED TOTAL	$0.00

TRAVEL/ CONFERENCES & MEETINGS	AMOUNT
Travel to 2 In-Person Training Sessions in Jackson, TN during the one year performance of contract for 3 travelers for a day trip. This includes mileage (0.54 x 258 miles x 2 trips), per diem ($41.25 x 3 people x 2 trips) and miscellaneous travel expense ($20 x 3 people x 2 trips). NOTE - Per diem of $55 used then prorated by 75% for day trip; Standard GSA Per Diem rates used for Jackson, TN due to it not being on GSA listing.	$646
Travel to 2 In-Person Training Sessions in Knoxville, TN during the one year performance of contract for 3 travelers for an overnight trip. This includes mileage ($0.54 x 360 miles x 2 trips) , per diem ($42 x 3 people x 2 trips x 2 days), hotel per diem ($97 x 1 night x 3 people x 2 trips) and miscellaneious travel expense ($20 x 3 people x 2 trips). NOTE - Per diem of $56 used then prorated by 75% for each day of 2 day trip; Knoxville GSA Per Diem Rates used for this trip.	$1,595
Meeting location rental in Jackson and Knoxvile, TN ($1000 each for 4 meetings)	$4,000
ROUNDED TOTAL	$6,241

INTEREST	AMOUNT
N/A	$0.00
ROUNDED TOTAL	$0.00

SPECIFIC ASSISTANCE TO INDIVIDUALS	AMOUNT
N/A	$0.00
ROUNDED TOTAL	$0.00

DEPRECIATION	AMOUNT
N/A	$0.00
ROUNDED TOTAL	$0.00

OTHER NON-PERSONNEL	AMOUNT
Office Supplies (binders and jump drives for training materials provided to practices)	$91.76
Printing and Reproducton (posters and laminated posters for practices to hang in practices	$360.00
ROUNDED TOTAL	$451.76

CAPITAL PURCHASE	AMOUNT
N/A	$0.00
ROUNDED TOTAL	$0.00

This project will use $152,610 of CMP funds beginning April 1, 2019 and running through March 31, 2020 (period of 1 year). No Non-CMP funds are expected to be used in this project. Qsource plans to use CMP funds to train nursing homes during in person learning sessions in two parts of the state (Jackson and Knoxville), individualized technical assistance and will use funds to provide binders with educational materials and posters to the nursing homes participating. Qsource will monitor expenses monthly to assure that expenses are on track to not exceed the budget. Qsource will teach teams at each nursing home to monitor and maintain new processes to ensure project sustainability beyond funded timeframe.

GENERAL ASSURANCES

Assurance is hereby provided that:

1. This program will be administered in accordance with all applicable statutes, regulations, program plans and applications:
   a. The laws of the State of Tennessee;
   b. Title VI of the federal Civil Rights Act of 1964;
   c. The Equal Employment Opportunity Act and the regulations issued there under by the federal government;
   d. The Americans with Disabilities Act of 1990 and the regulations issued there under by the federal government;
   e. The condition that the submitted application was independently arrived at, without collusion, under penalty of perjury; and,
   f. The condition that no amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Agency in connection with any grant resulting from this application.
2. Each agency receiving funds under any grant resulting from this application shall use these funds only to supplement, and not to supplant federal, state and local funds that, in the absence of such funds would otherwise be spent for activities under this section.
3. The grantee will file financial reports and claims for reimbursement in accordance with procedures prescribed by the State of Tennessee Department of Health.
4. Grantees awarded grants resulting from this application process will evaluate its program periodically to assess its progress toward achieving its goals and objectives and use its evaluation results to refine, improve and strengthen its program and to refine its goals and objectives as appropriate.
5. If applicable, the program will take place in a safe and easily accessible facility.

CERTIFICATION/SIGNATURE

I, THE UNDERSIGNED, CERTIFY that the information contained in the application is complete and accurate to the best of my knowledge; that the necessary assurances of compliance with applicable state/federal statutes, rules and regulations will be met; and, that the indicated agency designated in this application is authorized to administer this grant.

I FURTHER CERTIFY that the assurances listed above have been satisfied and that all facts, figures and representation in this application are correct to the best of my knowledge.

Digitally signed by dfitzgerald@qsource.org
DN: cn=dfitzgerald@qsource.org
Date: 2018.10.23 11:21:14 -05'00'

10/23/2018

Signature of Applicant Agency Administrator — Date Signed (Month/Day/Year)

Applicants Name: Qsource

Page(s) #:	Required Element:	PASS	FAIL
5	Cover letter is included and addressed to: Vincent Davis, State Survey Agency Director 665 Mainstream Drive, 2nd Floor Nashville, TN 37243		
5	Cover letter is signed by facility administrator if nursing home or signed by project administrator if other.		
1-4	CMS Fillable Application (**Attachment 1**) is included and is signed by an individual who can legally sign a contract with the State of Tennessee.		
1	All applicable blanks are completed in CMS application including Tax Identification number, and if applicable, Medicare/Medicaid numbers.		
18-19	Submitted the completed Excel budget spreadsheet and budget details page (**Attachment 2**) for the project, along with a narrative expalnation of the costs.		
15-16	Job descriptions for key personnel are included (one page limit).		
15-16	Biographical sketches/Curriculum Vitae for currently employed key personnel are included (one page limit).		
15	Project organizational chart is included and significant collaborators are identified.		
5	Project Title information is included per CMS application.		
6	Required Abstract information is included per CMS application.		
6-7	Statement of Need information is included per CMS application, and addresses possible problems and contingency plan.		
8-10	Project Description information is included per CMS application and includes projected outcomes, the timeline, deliverables, benchmarks, and dates.		
11-12	Results Measurements information is included per CMS application and identifies what data will be measured, how and when it will be measured, and who will measure it.		
13	Description of how the nursing home community and governing body will assist and provide support for the project which is included per CMS application.		
14	Identification and list of all organizations and subcontractors that will receive funds from this grant are included per CMS application (i.e., specific nursing homes, hospitals, local community agencies, etc.).		

5	Letters of commitment/agreement from all organizations and subcontractors that will receive funds from this grant are included per Request for Application.		
20	General Assurances form is included and signed per Request for Application.		

Primary Evaluator Signature and Date: