Mesa County Frailty Workgroup
Addendum to Final Report to NextFifty Initiative

Report on Project Objectives
January 2022

Objective One: Structurally, legally and ethically prepare the community for frailty care that is maximized by full collaboration across the spectrum of care, and that meets state, federal and institutional review board standards for patient safety and ethics.

Measurement: Completion and completeness of initial agreements by Western Colorado Physicians Association, Home Care of the Grand Valley, Larchwood PARC/LTC and Quality Health Network.

Mesa County has been an excellent place to pursue this project. Area providers and system administrators have consistently and relatively enthusiastically maintained involvement with the Frailty Workgroup throughout the duration of the grant period.

A series of happenings made possible the efforts of the Frailty Workgroup: All members of the 500-member provider community read Atul Gawande's "Being Mortal," several speakers on related topics were brought in to present, and key leaders quickly and vocally supported the concept. In whole, the time and place were ideal for learning, growth, and shift in attitudes and practices.

Early in its effort, prior to the pilot onset, the Frailty Strategic Workgroup met numerous times to focus on building inter-organizational capacity to share frailty reports via the Health Information Exchange, to review current HIPAA operating agreements between and among all Workgroup participants, and to assure alignment with legal and ethical guidelines. At the onset of the pilot, the Clinical workgroup met biweekly for one year.

Frailty Workgroup project partners have included:

- Colorado Mesa University
- Summit West Care, Home Health
- Larchwood Inns, Post-Acute Rehabilitation Center (PARC)
- Western Colorado Physicians Group
- Primary Care Partners, Information Technology
- Quality Health Network
- Patient Pattern

Clinical Workgroup members:

- Charlene Raum RN
- Mellissa Lathum, RN
- Laura Head QHN Project manager
- Brett Kellagren Patient Pattern
- Michael Miller, Primary Care Partners IT
- Steven Buslovich MD, Patient Pattern

Members of the Frailty Workgroup's Strategic Advisory body include:

- Kathleen Hall RN, APN, Colorado Mesa University
- Andrea Nederveld MD, SNOWCAP, University of Colorado
- Julie Riesken, Director, Cross Disabilities Coalition for Colorado
- Amy Mohler MD, Medical Director, Larchwood Inns
- Charlene Raum RN, CEO, Summit West Care Home Health

Gary Knaus MD, Carbondale Family Medicine
Mark Luker MD, Orthopedist, Rocky Mountain Orthopedics
Patricia Lapkin MD, Geriatric Psychiatrist, Mind Springs Health and St. Mary's Hospital
Patrick Page MD, Family Physician, Primary Care Partners
Amy Gallagher PsyD, Whole Health, LLC, Mind Springs Health
Shannon Keel MD, Marillac Clinic
The Aspen Renaissance Transformation Team (a statewide collaboration of innovative family physicians, known as ART2, jointly engage in practice based research).

Objective Two: Establish schedules and processes for communication and reporting to grantor, project participants and advisory groups.

Measurement: Ability to plan for and utilize calendar for pushing out communications; feedback from recipients regarding frequency, clarity and usefulness of communications; acceptance of writings and presentations for broader audience distribution.

As above, the clinical workgroup met biweekly for one year and communicated openly.
Primary Investigator Patrick Page MD was joined by two key Strategic Workgroup participants who also served as excellent organizers and thought leaders for overseeing and guiding the project: Amy Gallagher PsyD and Shannon Keel MD. Adherence to timelines, deliverables and project benchmarks has met/exceeded expectations, largely due to the efforts of this leadership team.

The Colorado Mesa University Institutional Review Board approved the Frailty Pilot as Quality Improvement.

Primary Care Partners' quality improvement committee has reviewed the progress of the project regularly throughout the grant period and essentially served as hub for physician-level provider involvement.

The Aspen Renaissance Transformation Team reviewed the activities of the Frailty Pilot during their monthly meetings.

The Principle Investigator gave the following one hour presentations:

- The Frailty Workgroup's Principle Investigator presented a model for sharing health care data, along the continuum of care, at the Leading Age Conference in Baltimore, in June of 2019. This was the only project presented involving a federation of participants along the full spectrum of care.
- At the Patient Centered Medical Home Congress (sponsored by the National Center for Quality Improvement or NCQA) meeting in San Diego, in May of 2018, the Mesa County Frailty Pilot was outlined as a model of targeting high risk populations for quality improvement
- The Principle Investigator presented thrice to the Aspen Renaissance Transformation Team (ART2), a 501c3 organization comprising innovative family physicians and early adopters located throughout Colorado.
- The PI presented the concept of a frailty based care compact to the Nebraska Academy of Family Physicians in October of 2021. Two large accountable care organizations were interested in the concept of a regional saturated frailty based care compact.
- Westminster Family Medicine have participated in two presentations.
- Western Colorado Physicians Group entertained three presentations.
- Family Physicians of Western Colorado had two presentations.
- Community Hospital had one presentation.
- St. Mary's Hospital's "Enhanced Recovery After Surgery Committee," a quality improvement/peri-operative safety program, had three presentations.

- Gary Knaus MD, champion for the Carbondale Family Physicians group practice had four extensive meetings over four years.
- The Primary Investigator and CEO of Primary Care Partners met for approximately a dozen times.
- The PI also met four times with representatives of UCare, a not for profit health plan, on how to utilize frailty information toward incentivizing the right care at the right time for the high risk frail population.
- The PI met with members of the Geriatrics and Neurologic departments on approximately six occasions.
- In addition, at least 100 hours of additional curbside meetings of 15 minutes occurred in the course of the project, with a wide variety of providers of care to the elderly.

Objective Three: Train healthcare workers at participating organizations on use of Patient Pattern software.

Measurement: By month three of use, healthcare workers will be able to provide oversight of software use within their respective organizations and identify optimization features for the software vendor. By month 13, healthcare workers at Phase One participating organizations will be able to mentor counterparts at Phase Two participating organizations in use of the software within their respective organizations.

A subgroup of the Frailty Workgroup met approximately every two weeks early in the project to work through system barriers to implementing Patient Pattern Software, the specific tool used to measure patients' frailty risk.

Representatives from Patient Pattern met with members of the Frailty Workgroup to introduce and provide a demonstration of the software. Additionally, a demonstration was provided for St. Mary's Hospital's Director of Enhanced Recovery after Surgery (ERAS) and Orthopedic Nurse Practitioner, with information shared with the Hospital's quality committee and the Sisters of Leavenworth lead physician.

Training of software use and registry functionality was provided for personnel at Western Colorado Physicians Group, Summit West Care Home Health and Larchwood Inns.

Care management modules were provided to Summit West Care and Larchwood, by Patient Pattern.

A specific care management view was also provided for Western Colorado Physicians Group and its care managers.

Each site was thus enabled to use this case management view to prioritize care for the frail elderly within each organizations usual workflow.

Gary Knaus MD (Carbondale, CO) has obtained Patient Pattern assessment licenses for his family practice group, and has developed a practice workflow where a team assesses, tracks data and acts in alignment with a singular patient's degree of frailty. Several other of the region's providers of primary care, PACE, hospice and palliative care also are interested in piloting the software.

By the end of the year three, three members of Family Physicians of Western Colorado were trained to utilize the frailty assessment tool and were positioned to train the next set of interested physicians and case managers. At their request, the Principle Investigator was engaged to provide support of interpretation of frailty assessments. It is his plan to provide consultations for perioperative frailty assessments for the Mesa County community, after completion of the grant time frame.

Objective Four: Institutionalize Patient Pattern software and data into the Quality Health Network information system, efficiently organized with advanced directives and patient-specific care plans to meet (and improve) community standards for frail elderly care.

Measurement: Standardized access to risk-based frailty assessments and care plans for those participating in the project. By Month 13, Patient Pattern data and the Quality Health Network interoperability team will provide access to risk-based frailty assessments and care plans.

Early in the grant period, a contract was established between the local QHN (Quality Health Network) and Patient Pattern to allow data is already being submitted to QHN to be shared with Patient Pattern for calculation of frailty risk scores. This agreement continues today as new frailty assessments are completed and submitted through QHN: Patient Pattern calculates the patient's score, sends this back through QHN to the patient's provider(s) of record, and the score permanently lives/is updated within the QHN system.

By month five of the grant, the three sources of frailty assessments were routinely and automatically (through interfaces) directing the calculated frailty reports to both the health information exchange and the primary care physician's electronic medical director.

The specific score was treated like a lab result, with the specific score populating a trackable field in each site (EHR and HIE). In addition, a PDF of the frailty report description, components, areas of concern, consultation directing areas for improvement or treatment, was placed in a specific area of the chart, by interface and with precision based on the master patient index. The Index and the PDF were co-located in the progress note section as well as a subsection entitled advanced directives. A banner, indicating the presence of advanced directives alerts the broader community of providers of the presence of these documents.

At Western Colorado Physician's Group, the index score and the details of the advanced directives are summarized on the electronic health record banner. The banner is present at each access point when cross covering providers look for a summary of a high risk patient's direction of care.

The outcome of this alert system is an increased chance that a high risk patient will have an opportunity to direct their care according to their needs and desires. In addition, in the case of a high risk patient who has chosen a path of care more appropriate to a low risk patient, the cross covering provider team will be more aware of the need for careful discussion of risks and benefits, in new acute settings.

Objective Five: Integrate Medicare's Outcome and Assessment Information Set (OASIS) with Patient Pattern software, Quality Health Network and Home Care of the Grand Valley for data sharing.

Measurement: Completion and ongoing operability of integration.

Summit West Care Home Health, which utilizes the OASIS system, has been an integral participant in the Frailty Workgroup and an early adopter of frailty indexing of its home health care patients. Submitting OASIS data to QHN, this is sent to Patient Pattern (as outlined above in Objective Four) and frailty risk scores are calculated, then uploaded back into QHN so that Summit West Care and provider of record can access a particular patient's frailty risk score.

Integration of the OASIS system has been a relatively simple process as part of the Frailty Workgroup's efforts, largely due to the professionalism and expertise provided by Patient Pattern, and the time that the Workgroup invested toward a shared vision.

Objective Six: Integrate Patient Pattern with Center for Medicare and Medicaid Services (CMS) to establish the proposed unique code for Advanced Care Planning that then becomes the metric for the step wedge strategy, in preparation for a future innovation grant for measuring the model and impact regionally, state and/or nationwide.

Measurement: Assignment of a CMS modifier code; federal review and validation of frailty data outcomes.
Larchwood Inns has formatted and tested the submission of MDS from Larchwood to create frailty assessments routed through QHN.

Integration of the MDS system has been a relatively simple process as part of the Frailty Workgroup's efforts, largely due to the professionalism and expertise provided by Patient Pattern, and the time that the Workgroup invested toward a shared vision.

Objective Seven: Conduct a retrospective analysis of OASIS-derived frailty indices of patients at Western Colorado Physicians Group and Home Care of the Grand Valley using data from the 12 months preceding project initiation.

Measurement: Completion of analysis; findings that prove improvement in patient health outcomes.
This project gathered, scored and distributed frailty data, and conducted geriatric assessment on 2000+ patients seen by local providers during the period.

Michael Miller, Information Technology Director at Primary Care Partners, has tested inbound frailty reports from Patient Pattern, Larchwood and Summit West Care.

The back loading of prior MDS and OASIS derived patients allowed the receiving providers to consider the concept of frailty.

The PI's practice was able to begin assessing patient's evolution of frailty over time and across care settings.

The counseling of patients undergoing resolution or emergence of resilience was especially helpful in understanding that frailty is not static and is very amenable to modification and adaptation.

The continuity of reports was very helpful in helping patients and families accept end of life care as a planned and gradual result of normalcy in every individual's life cycle and thus a healthier resolution for the person facing end of life and their family, whose bereavement held on to the best of a families connection to one another. Rather than regret and second guessing, the process was one of a natural acceptance of that the best was done and congruence with the patient and families' wishes, as advised by concrete data.

While a quantitative analysis of mortality and hospitalization rate was not performed, one of the nurse practitioner doctoral candidates from Colorado Mesa University's health sciences department is planning her doctoral thesis to be a quantitated assessment of this project.

Objective Eight: Integrate OASIS-based frailty indices and associated patient care plans within workflow at participating user organizations.

Measurement: Home Care of the Grand Valley will integrate OASIS and frailty integration efficiencies and patient outcomes into the workflow by Month 13.
Primary Care Partner's Quality Improvement Committee reviewed the proposed workflow, including the process of precise patient identification, and has been effectively able to manage the inflow of frailty score reports as they reach the inboxes of approximately fifty primary care providers.

The OASIS based frailty index workflow was maintained during the three year pilot.

Outcomes would have been enhanced if all of the home health agencies were participating in the pilot.

A saturation effect would lead to a community standard and thus a wider benefit. Other home health agencies, hospices and the PACE program voiced desire to be a part of such a standardized approach.

Objective Nine: Work with Primary Care Partners (broader healthcare provider with Western Colorado Physicians Group as a division) to establish interfaces for importing frailty assessments and exporting frailty assessments.

Measurement: Successful completion of care plan and frailty assessment data import and export by Month 15.
As outlined in reporting on the various Objectives above, care plan and frailty assessment data import and export has been realized and comfortably in place since month five of the pilot.

Objective Ten: Integrate and test the inclusion of Patient Pattern data and care plans in the Medicare Minimum Data Set at Larchwood PARC/LTC; conduct retrospective analysis of Minimum Data Sets-derived frailty indices of patients at Western Colorado Physicians Group and Larchwood PARC/LTC using data from the 12 months preceding project initiation.

Measurements: Completed integration with MDS. Completion of past-patient analysis; findings that prove improvement in patient health outcomes, such that by Month 6, Western Colorado Physicians Group and Larchwood PARC/LTC will have a strong basis for collaboration to advise process and future deployments.

See discussion for objective Seven above.

Objective Eleven: Initiate and maintain Larchwood PARC/LTC adoption and utilization of Frailty Index-based care plans.

Measurement: The review process will describe outcomes, process assimilation, and opportunities for system improvements and for future evaluation.

Same as Objective Seven.

Dr. Amy Mohler, of Primary Care Partners, geriatrician and medical director of Larchwood and four other skilled nursing facilities reports great benefit from use of the frailty index. Specifically, she found it affirmed her practice by objectifying her assessment of risk and thus enhanced her ability to have helpful discussions with patients facing the end of life or considering high risk procedures. She found it especially helpful to educate staff toward a deeper understanding of the complex path of aging patients.

Objective Twelve: Hold meetings of clinical leaders at three healthcare provider sites and representatives of Patient Pattern and Quality Health Network to describe path toward true collaboration in work with the elderly frail population.

Measurement: By Month 24, the group will be able to describe a simple path toward true community collaboration in work with the elderly frail population.

The Frailty Workgroup feels its efforts have affirmed the initial construct validation proposed to NextFifty: Quality of life for the vulnerable aging population and family members is improved via (local) system-wide frailty assessment and subsequent care planning and services delivery. Improved outcomes of quality and satisfaction can and should be expected.
See Frailty Group White Paper for further information.
The PI feels that this White Paper might serve as a starting point for any regional or health system approach for adopting a frailty based care compact.

The PI has been invited to the Academy Health conference to serve on a panel on how to capture data system toward annotating risk for the aging population. This panel I sponsored by the Innovation Center for the Centers for Medicaid and Medicare Services, and thus the Next 50 Foundation should feel that their resources have been well served toward the mission of this specific pilot.

Looking forward:

- The Frailty Workgroup's efforts will continue in Fall 2022 when Jessica Griffiths RN, DNP candidate will work with Dr. Page on a capstone doctoral research project comparing patient outcomes by the degree to which frailty data was utilized in case management.
- There is need for the American Medical Association to create and maintain a CPT code for frailty risk-advised advanced care planning, with higher/incentivizing compensation for delivery of validated patient services.
- AHRQ (Agency for Healthcare Research and Quality) guidelines need to articulate: "Disease state management should be qualified in the presence of moderate or severe frailty, and as frailty continues."
- It is desirable that additional efforts similar to those of the Frailty Workgroup are pursued with representation from the patient, disability and elder care communities – including aligned incentives to bring together these interests – to provide a sustainable and ethically-sound model.
- The software vendor, Patient Pattern, in collaboration with Pathways Health, have developed and extensive frailty training program. This program, was vetted by the PI and extends training appropriate to every potential provider of frailty care, with direction specific to each role.

Objective Thirteen: Develop plan to and provide education/professional development on Frailty Indexing and care planning for representatives of hospitals, Independent Physicians Association, United Health Care, Rocky Mountain Health Plans, Monument Health, Quality Health Network and Primary Care Physicians.

Measurement: Ability to schedule and provide quality training. Attendance at trainings, interest in project generated as a result of trainings.

See objective two above for a list of meetings toward this objective.

While a Care Compact has not been realized, the following notable activities to further both the outcomes and ongoing assessment of work with frail elderly patients have been catalyzed as a result of and/or in tandem to The Frailty Workgroup efforts:

- ***Rocky Mountain Orthopedics (Grand Junction, CO) now proactively asks for frailty assessment data prior to pursuit of elective joint surgery, and plans to conduct frailty assessments before determining a path forward in the case of traumatic hip fracture.***

- ***CMS has eliminated the three-day qualifying stay for admission into a skilled nursing rehabilitation facility, and has authorized telehealth visits to allow for safe and secure medical management and counselling of patients and caregivers.***

- ***The ART2 group has initiated a research and quality improvement activity around the theme of loneliness, given that lonely frail individuals have the most adverse survival outcomes.***

- ***The PEACHNET focus group, gathering together practice-based researchers from throughout the state, and with support from University of Colorado Health Sciences, affirms the construct validation of frailty for use in planning for and delivery of oncology services.***

- ***Ron Crosno MD, national medical director for Kindred Hospice, has approved the use of frailty assessments in hospice re/certification to augment clinical judgment.***

- ***Margaret O'Kane of the National Committee for Quality Assurance affirms that quality improvement is a local phenomenon: Motivation, focus, teamwork, and outcome are improved when a community voluntarily addresses its own priorities.***

- ***UCARE, a not-for-profit insurance company (Minneapolis, MN) has made plans to enter the Colorado market. This company is noteworthy for low administrative costs and partnership with primary care providers to ensure patient-centered care. (UCARE is a welcome competitor following the financial collapse of the local Rocky Mountain Health Plan and its sale to United Health Care, thereby eliminating a not-for-profit entity to capitalize provider-directed innovation.)***

- ***Medicare has issued a Request For Proposals for data capture from insurance claims to create a frailty index. (It is the Primary Investigator's opinion that claims data provides the advantage of passive data capture and time savings, potentially beneficial for research and early identification. But, given the usual lag time in presenting claims data to clinicians, this approach risks irrelevance for case management of moderate-to-severe levels of frailty; patients cannot wait 60-90 days as care adjustments become emergent/catastrophic. Efficacy of the Medicare approach is challenged by the real-time data capture – via OASIS, MDS, point-of-care CGA – of the Frailty Workgroup pilot and the rapid deployment it allows. Further, in consideration of Medicare's high-complexity coding system supporting maximize per member/per month payment, the Frailty Workgroup believes that only observational performance measures of frailty will provide the necessary and actionable data for effective case management and accurate risking of individual patients.)***

- ***There is increasing acceptance for and implementation of thinking and practices presented in Shibley Rahman's book, "Living with Frailty: From Assets and Deficits to Resilience" (2018), faraway the most comprehensive text available on the topic to date. The work of the Reeves' group (Manchester University), likewise, challenges the validity of general practices' "problem lists" that fail to consider patient resilience.***

- ***The software vendor, Patient Pattern, in collaboration with Pathways Health, have developed and extensive frailty training program. This program, was vetted by the PI and extends training appropriate to every potential provider of frailty care, with direction specific to each role.***

See Objective two for a list of conferences hosted by the PI.

Health care economists Len Nichols, PhD (George Mason University) and Nathan Perry (Colorado Mesa University) had agreed to assist the project in financial impact assessments of the project.

Unfortunately this remains a potential, not yet realized.

Objective Fourteen: Conduct formalized planning and recruiting for future project participating organizations throughout the region.

Measurement: Recruitment and engagement of participating organizations throughout the four-county region.
The Frailty Workgroup has a website, which is frequently accessed by providers nationally, leading to inquiries and sharing of information:
www.frailtyworkgroup.org.
While a Care Compact has not been realized, the following notable activities to further both the outcomes and ongoing assessment of work with frail elderly patients have been catalyzed as a result of and/or in tandem to The Frailty Workgroup efforts:

- Rocky Mountain Orthopedics (Grand Junction, CO) now proactively asks for frailty assessment data prior to pursuit of elective joint surgery, and plans to conduct frailty assessments before determining a path forward in the case of traumatic hip fracture.
- CMS has eliminated the three-day qualifying stay for admission into a skilled nursing rehabilitation facility, and has authorized telehealth visits to allow for safe and secure medical management and counselling of patients and caregivers.
- The ART2 group has initiated a research and quality improvement activity around the theme of loneliness, given that lonely frail individuals have the most adverse survival outcomes.
- The PEACHNET focus group, gathering together practice-based researchers from throughout the state, and with support from University of Colorado Health Sciences, affirms the construct validation of frailty for use in planning for and delivery of oncology services.
- Ron Crosno MD, national medical director for Kindred Hospice, has approved the use of frailty assessments in hospice re/certification to augment clinical judgment.
- Margaret O'Kane of the National Committee for Quality Assurance affirms that quality improvement is a local phenomenon: Motivation, focus, teamwork, and outcome are improved when a community voluntarily addresses its own priorities.
- UCARE, a not-for-profit insurance company (Minneapolis, MN) has made plans to enter the Colorado market. This company is noteworthy for low administrative costs and partnership with primary care providers to ensure patient-centered care. (UCARE is a welcome competitor following the financial collapse of the local Rocky Mountain Health Plan and its sale to United Health Care, thereby eliminating a not-for-profit entity to capitalize provider-directed innovation.)
- Medicare has issued a Request for Proposals for data capture from insurance claims to create a frailty index. (It is the Primary Investigator's opinion that claims data provides the advantage of passive data capture and time savings, potentially beneficial for research and early identification. But, given the usual lag time in presenting claims data to clinicians, this approach risks irrelevance for case management of moderate-to-severe levels of frailty; patients cannot wait 60-90 days as care adjustments become emergent/catastrophic. Efficacy of the Medicare approach is challenged by the real-time data capture – via OASIS, MDS, point-of-care CGA – of the Frailty Workgroup pilot and the rapid deployment it allows. Further, in consideration of Medicare's high-complexity coding system supporting maximize per member/per month payment, the Frailty Workgroup believes that only observational performance measures of frailty will provide the necessary and actionable data for effective case management and accurate risking of individual patients.)

  The PI has been invited to share his experience in the pilot on a panel of other national providers of frailty based care, and how to capture data sets to create a useful frailty index.
- There is increasing acceptance for and implementation of thinking and practices presented in Shibley Rahman's book, "Living with Frailty: From Assets and Deficits to Resilience" (2018), faraway the most comprehensive text available on the topic to date. The work of the Reeves' group (Manchester University), likewise, challenges the validity of general practices' "problem lists" that fail to consider patient resilience.

Objective Fifteen: Create a Care Compact among specialty and primary care physicians.

Measurement: Ability to craft and garner agreement/commitment to Care Compact by physicians in the region.

It is believed that all of the Frailty Workgroup's activities, tasks completed and Objectives have resulted in extremely useful information gathering and outcomes.

In culminating the grant period, a White Paper has been prepared, “Maximizing Wellness Outcomes for the Frail Aging Population: Understanding Frailty Indexing, Geriatric Interpretation and Patient Priorities” and will be presented on the Frailty Workgroup website at

www.frailtyworkgroup.org

by subscription, to allow the Frailty Workgroup to proceed among committed providers.