Food, Pharmacy and Culture Change: A Recipe for Success

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Introduction

Many will recall the 1960's and 1970's as a time in American history where the fight for social justice sparked many movements around the country. Martin Luther King gave his "I Have a Dream" speech in 1963 which ignited the civil rights movement. There was also the movement for the rights of women, those who are experiencing disabilities and patients' rights to be active participants in their healthcare. Dr. Elisabeth Kübler-Ross encouraged the hospice movement through her 1969 book *On Death and Dying* and her efforts eventually led to the coverage of those services under Medicare. All of these efforts to bring about social justice and equality set the stage for the movement to reform nursing home care.

The National Citizen's Coalition for Nursing Home Reform (NCCNHR), under the guidance of Elma Holder, was formed in 1975 to bring awareness and reform to substandard nursing home care. The coalition's first published paper, in 1978, was entitled "The Plight of the Nurse Aide in America's Nursing Homes". That was followed by a publication in 1985 entitled "A Consumer Perspective on Quality Care: The Residents' Point of View" which brought the voice of the resident to the reform discussion. In 1986, the Institute of Medicine published their landmark report "Improving the Quality of Care in Nursing Homes" which stimulated passage of the 1987 Omnibus Budget Reconciliation Act (OBRA '87). The overarching goal of OBRA '87 is to create care environments where the rights and choices of the residents come first.

These new rules and regulations began to give voice and credibility to those who long sought to create a more compassionate care environment for the frail and elderly. Those engaged in what today is known as the culture change movement. In 1995, NCCNHR brought together a panel of experts who had been working on changing the culture of long-term care since mid-1970. The four approaches were resident-directed care (Charlene Boyd), Individualized care (Joanne Rader), the Regenerative Community (Barry Barkan) and the Eden Alternative (Dr. William Thomas). The group grew in size when they met again in 1997 and included Karen Schoeneman, senior policy analyst with the Centers for Medicare and Medicaid Services Division of Nursing Homes. The group continued to grow in size and influence and today is known as the Pioneer Network, an organization dedicated to transforming the culture of aging.

During this same timeframe changes happened that affected the pharmacy profession. In 1965, Medicare legislation was introduced that set the conditions for participation for Pharmaceutical Services with the requirement of consultant pharmacist services in nursing homes. The American Society of Consultant Pharmacists formed in 1969. In the 1960's pharmacy schools across the country began offering Doctor of Pharmacy degrees to students and in 1992 the United States Colleges of Pharmacy voted to make the Doctor of Pharmacy the only professional degree. In 1974, consultant pharmacists

were designated to perform regular drug regimen reviews (DRR) in nursing facilities through the Medicare Conditions for Participation. In 1983, the Health Care Financing Administration (HCFA) adopted surveyor guidelines expanding pharmacy services in skilled nursing facilities. In 1990, Hepler and Strand introduced the concept of pharmaceutical care which was an initial step forward for pharmacy in implementing patient-centered care. By its definition, pharmaceutical care motivated pharmacists to team with patients and other heath care professionals to set individualized medication goals to optimize quality of life. Pharmaceutical care empowered the pharmacist to prevent actual and potential medication related problems by providing a comprehensive review of the medication profile and making recommendations to physicians and other members of the healthcare team. In 1991, Dr. Mark Beers convened a panel of 12 clinicians and together they identified a list of medications to be avoided in nursing home residents. The Beers List was incorporated into the surveyor guidance for medication related regulations in 1997.

The growing movement to improve the quality of life and quality of care in long-term care organizations has been happening in concert with the changing dynamic of the pharmacist's role in healthcare. The concept of individualized approaches to treatment with a focus on positive outcomes is reinforced through the growing clinical focus of the pharmacist's education and their role on the interdisciplinary healthcare team. The pharmacist is a collaborative member of the team working with their peers to assure that the patient's drug therapy is designed to meet their medical and life goals. A perfect fit with the goals of the culture change movement. There are some key concepts that need to be adopted by consultant pharmacists in order to better facilitate their involvement with organizations implementing culture change ideas. The table below outlines some of the changes being made by organizations implementing culture change, how they relate to the values of the Pioneer Network and the role of the pharmacist in supporting these person-directed care transformations.

Pioneer Network Values	Culture Change Ideas	Role of the Pharmacist
Know each person.	First-person care plans Consistent caregiver assignment Capture individual preferences related to the flow of daily life of Elders moving in and integrate them into the plan of care Capture detailed social histories and life interests for each Elder Identify and implement the Elder's simple daily pleasures	Build a relationship with the Elder; learn what their goals are related to their life as well as their medical conditions When doing monthly chart reviews, read through the social history and life interests (activities) for the Elder, it can provide ideas for non-pharmacological interventions Tap into the expertise of the daily caregivers to help guide drug regimen review recommendations Individualize medications and treatments, and their timing, to fit the Elder's daily routine Talk to the Elder and/or family members about their goals for medication therapy. Provide education when needed. Reframe the conversation of "behaviors". What unmet need is the Elder expressing? Address that first before adding medications.
Each person can and does make a difference	Empower caregivers to meet the needs of the Elder in the moment	Tailor drug regimen review recommendations to fit the needs of the Elder

Pioneer Network Values	Culture Change Ideas	Role of the Pharmacist
	Create self-managed teams Move decisions as close to the Elders as possible Seek ongoing growth for all through education in work and life skills	Be collaborative, accessible and educate the rest of the interdisciplinary team about person-directed care Participate in care plan meetings, pain teams, fall teams, behavior teams, etc. because medications have an impact on most quality of care issues Find creative ways to meet both the medical and personal desires of the Elder; think outside the box
Relationship is the fundamental building block of a transformed culture	Break down barriers between departments, job roles, and shifts by developing cross-trained, empowered teams Hold learning circles to build community and deepen relationships Permanent assignment of caregivers and other staff to the Elders in the home Everyone becomes well-known in the community	Get to know the people who work in the home beyond just their name and job title and let them get to know you Participate in home celebrations and other special events when able Take the time needed to build relationships with the Elders Remember that you are reviewing the drug profile of a whole person, not a list of diseases and lab value results
Respond to spirit, as well as mind and body	Use alternative approaches to address unmet needs of the Elders, e.g. aromas, low stimulus rooms Change the environment and approaches so that the Elder feels at home Create a rhythm of daily life that feels natural to the Elder and reflects their preferences	Identify alternatives to adding new medications when issues arise for the Elder Use a holistic approach when making drug regimen review recommendations Try to minimize the number of times a day that treatments and medications interrupt the Elder's life choices Adjust the timing of medications so they do not interfere with the Elder's choices, e.g. giving a diuretic in the evening rather than the morning so they can attend a desired event
Risk taking is a normal part of life	Maximize the Elder's choices in their lives Move to all regular diets and 24 hour a day food access with lots of education to support good decision making The plan of care speaks to the Elder's life goals and strengths even when they conflict with the best medical practice guidelines	Provide the needed education to the Elder, family and caregivers so they can support the Elder's life goals Understand that life-long patterns of behavior will not change just because the Elder has moved into a home where there are professional staff on duty all day; adjust the medications to support their lifestyle choices At times, the Elder's life goals should supersede medical best practices
Put person before task	Reduce the number of medication passes per day per Elder Move away from time-specific medication passes Individualize the medications, diet, therapies, etc. to meet the Elder's life goals and preferences Remove the medication cart from the home, placing medications in locked drawers or cabinets in the Elder's rooms All Elders awaken naturally Remove the traditional institutional scheduling of meals, meds, baths, therapy, etc so that the	Look at each Elder's drug profile and find ways to reduce the number of medication passes they experience per day Assist the home in implementing non-time specific medication administration times, e.g. upon arising, at bedtime, with meals Consider self-administration of some or all of the medications by the Elder where appropriate, identify packaging to fit their needs and ways for necessary documentation to be captured Assist the home in placing medications in the Elders' rooms and removing the medication cart from the home

Pioneer Network Values	Culture Change Ideas	Role of the Pharmacist
	atmosphere is more relaxed and the Elder can move through the day at their own pace	Find alternatives to administering medications at the table during meals Know the Elders beyond what is found in their medical charts Take time to interact with Elders and their families, to educate and include them in setting medication goals, especially when dealing with issues that effect quality of life such as pain management Help create a new pharmacist consultant business model that is more focused on outcomes for the Elders not the speed of chart reviews
All Elders are entitled to self-determination wherever they live	Care plan goals reflect the Elder's desires, preferences and words, not those of the professional staff Maximize the Elders choices throughout the day Daily activities reflect the unique interests of the Elders who live in the home Acknowledge that the Elders have the right to make bad choices Care plans use the words of the Elder (first person, story telling)	Support the quality of life for the Elder first and foremost, treatments and medications can often be adjusted accordingly Promote the Elder's self-administration of medications and treatments where appropriate Support advanced directives and other documentation about the Elder's end-of-life wishes related to medical treatment Assist in changing the language of care plans away from the problem-goals-approaches format and into the Elder's own voice
Community is the antidote to institutionalization	Break large living environments into smaller clusters of Elders and caregivers, such as neighborhoods, households and families so that relationships can deepen Identify meaningful ways for the Elders to remain connected with the outside community and contribute to life there Strengthen relationships across the organization and break down traditional barriers of departments, shifts, and job titles Foster engagement; the spirit that "we are all in this together" Caregivers and Elders sharing meals together	Be willing to get involved in the daily life of the home and participate in home celebrations and special events when able Learn about the home's culture change journey and offer your ideas and suggestions of what transformations they might take on next Share ideas of what you are seeing and learning from other organizations implementing culture change ideas Encourage and support changes that foster relationships and socialization at mealtime so that appetites improve and less supplements are needed Be an advocate for change with other healthcare professionals so they can see their role differently Be willing to sit down and enjoy a meal with the Elders (be a role model)
Do unto others as you would have them do unto you (or, do unto others as they want to have done unto them)	Let go of the need to control the daily lives and routines of the Elders Food, of the Elder's choosing is available all day, every day right where they live Goals and daily routines match the Elders choices	Use the same mindset in making drug regimen review recommendations as you would if you were supporting an Elder living in their own home in the larger community Recommendations should be based on what each Elder wants, not what we would want for ourselves or what we think the Elder wants
Promote the growth and development of all	Assure that the medications and treatments ordered support the Elders' choices in their life Assure that the caregivers are given the training and skills they need to meet the needs of the Elders	Provide education to all about medications, their risks and benefits Recognize and acknowledge the caregivers for the expertise they possess about the Elders

Pioneer Network Values	Culture Change Ideas	Role of the Pharmacist
	Elders that are able, and choose to do so, can self-administer all or some of their medications Change the approach and environment before adding new medications	When providing information about medications being used by the Elders (drug information sheets or inservices) be sure to include the whole team in the Elder's living area Provide person-directed care education to pharmacy schools, students, associations and journals
Shape and use the potential of the environment in all its aspects: physical, organizational, psycho/social/spiritual	Remove overhead paging and alarms Restructure the organization so that decisions can be made more quickly and the needs of the Elders can be met in the moment Personalize the living space to reflect those who live and work in the home Each small living area operates at a pace that reflects the preferences of those who live there Have a daily routine that reflects the personal choices of the Elders	Support changes in the language used in care plans, pharmacy recommendations, charting, etc so it reflects the person first Identify, support and acknowledge environmental changes that may lead to less medication use by the Elders, e.g. anti-anxiety and psychotropic medications Include recommendations that focus on improving the well-being of everyone in the home so that less medication is needed, e.g. empowerment of caregivers, consistent assignment, life skills education
Practice self-examination, searching for new creativity and opportunities for doing better	Hold learning circles to build relationships, address concerns, identify opportunities to grow and build community Visit other homes working on culture change Attend local and national conferences to learn more about culture change and person-directed care	Learn all you can about the culture change movement and various approaches used by organizations Integrate culture change ideas into the recommendations you are making Ask for or recommend speakers on culture change ideas for conferences you attend regularly
Recognize that culture change and transformation are not destinations but a journey, always a work in progress	Continuously re-evaluate progress, assess the results and identify new transformations to be implemented Recognize and celebrate that each new individual that comes to the home brings new ideas and energy to move the journey forward	Always be in pursuit of removing unnecessary medications and treatments from the Elders' lives Recognize that each Elder will bring new opportunities to identify ways to personalize the medications and treatments to fit their life goals Continue to grow and stretch your thinking so that you can bring new ideas and energy to the home's culture change journey

The Eden Alternative® is an approach to culture change that is based on ten Principles. Principle seven says that "Medical treatment should be the servant of genuine human caring, never its master." This Principle captures the challenge of transforming the medical model of healthcare into person-directed care. We have to find the balance between the demands of medical treatment and the human needs of people to be cared for, genuinely cared for, by others as well as their need to provide care. In many ways, healthcare has arrived at the perfect storm. Those who are considered patients in the system are demanding more personalized approaches to their medical care. They are better informed and more proactive in their lifestyle choices, whether they are healthy or not. Throughout the healthcare system, the phrase "person-centered care" has become a central theme as evidenced in part by the work of the Quality Improvement Organizations funded through the Centers for Medicare and Medicaid Services (CMS). Those with ideas, models and principles that can help drive cultural transformation in Eldercare are building the case for change and actively demonstrating how it can be different. They are the

pioneers for the rest of the system. We are close to a tipping point. The time is now for the pharmacy profession to join in the movement with expertise and creativity to make the transformational ideas ones that truly do create quality of life for the Elders who are affected. Those who can make the shift will set themselves apart from their peers and open doors to opportunities not yet seen.

Drug, Food and the Elders

One of the changes being made by homes engaged in culture change efforts is to redesign the meal service. Food, of the Elder's choosing, is more accessible all throughout the day. This generates some additional evaluation to assure that medication effectiveness is maximized to meet the Elders' needs in the face of this new normalcy of food access.

Food affects the bioavailability of some drugs by affecting the rate and extent of how much of the drug gets absorbed from the stomach. Food can also impact the metabolism and excretion of certain drugs. The nutritional status of the patient is also an important consideration when evaluating the interaction between food and drugs. Aging and poor nutritional status decreases the levels of protein in the blood needed to transport drugs throughout the body; alters the amount of body fat affecting the amount of drug retained in the system; and decreases the amount of total body water which can affect the availability and actions of the drug in the system once it is absorbed. Food and aging can slow gastric emptying which causes timed-release medications to dissolve in the stomach enhancing the absorption and actions of the drug. Dairy products containing calcium can bind drugs and prevent their absorption, as can foods high in pectin or fiber and antacids.

There are considerations beyond solid food and how it interacts with medications. There is the issue of some beverages, most especially milk, grapefruit juice and alcohol. Milk contains calcium which can bind drugs and prevent their absorption. Grapefruit juice most notably interacts with cardiovascular medications and statins, but there are other medications affected as well. Alcohol in combination with metronidazole, some cephalosporins, ketoconazole and sulfonylureas can cause flushing, headache, palpitations, nausea and vomiting. Alcohol can also potentiate the sedative effects of psychoactive medications.

Another important consideration as the interactions between drugs and food are explored is that drug-food interactions are not necessarily a component in the drug interaction software used by pharmacies and pharmacists. It requires special attention and focus of the consultant pharmacist in concert with the interdisciplinary team to identify when food-drug interactions are an issue for an Elder, what education to provide the Elder and how to make sure the Elder's needs are met in a manner that assures the drug's effectiveness and maximizes the Elder's choices.

Common food-drug interactions (partial list):

Drug	Food	Interaction
Reactions that enhance drug effects		
Anti-hypertensives (felodipine, nifedipine, nimodipine, nisoldipine, nicardipine, isradipine, losartan)	Grapefruit juice	Inhibits the enzyme CYP 3A4 involved in drug metabolism in the gastrointestinal tract. This increases the blood levels of the drugs causing

Quinidine Immunosuppressants (cyclosporine, tacrolimus, sirolimus) CNS (buspirone, sertraline, diazepam, midazolam, triazolam, alprazolam, zaleplon, carbamazepine, clomipramine, trazodone, nefazodone, quetiapine, zolpidem) Statins (atorvastatin, lovastatin, simvastatin) Protease inhibitors (HIV/AIDS, saquinavir) Loratadine Estrogen and oral contraceptives Sildenafil Methadone Antifungals (itraconazole) Budesonide		an increased risk of side effects.
Aluminum-containing antacids	Citrus juice	Increased absorption raising the risk of calcium loss, accelerating osteoporosis
MAO-A inhibitors and MAO-B inhibitors if maximum daily dose is exceeded – isocarboxazid, phenelzine, tranylcypromine Isoniazid, linezolid Selegiline	Tyramine containing foods (chocolate, aged cheese, sausage, bologna, pepperoni and salami, pickled herring, fava bean pods, sauerkraut, soybean products, tap beer and unpasteurized beer, red wine)	Under normal conditions, MAO-A in gut wall breaks down tyramine in foods and prevents its absorption. With the MAO-A enzyme blocked the tyramine gets absorbed causing hypertensive crisis. Symptoms include severe headache, blurred vision, difficulty thinking, seizures, chest pain, unexplained nausea or vomiting, and signs or symptoms of a stroke. Avoid these foods if taking MAO inhibitors.
Spironolactone, hydrochlorothiazide, hydralazine, griseofulvin, nitrofurantoin, itraconazole, ketoconazole, posaconazole, azithromycin solution, cefuroxime, cefpodoxime, propoxyphene, nabumetone, flurbiprofen, montelukast, fenofibrate, mebendazole, isotretinoin, tamsulosin, carbamazepine, labetalol, metoprolol, propranolol, loratadine	Food	Increased drug absorption and effects
Lithium	Food – high sodium vs low sodium diets	Increased absorption with altered drug effects. High sodium diet decreases blood levels and low sodium diet increases blood levels.
Digoxin	Licorice	Digoxin toxicity
Stimulants (methylphenidate)	Caffeine and chocolate	In excessive amounts, caffeine (including that in chocolate) can potentiate the effects of CNS stimulants.
Sedatives (opiates, benzodiazepines, antihistamines, psychotropics)	Alcohol	Increased sedative effects of the drugs
Reactions that decrease drug effects		
Biphosphonates (alendronate, ibandronate, tiludronate and risedronate)	Any food	Food and any drink except water can reduce the absorption and effectiveness. Take the drug with water ½ hr before (with ibandronate 1 hr before) the first food, beverage or another drug of the day
Anticoagulants (warfarin)	Foods high in vitamin K (leafy green vegetables, broccoli, brussel sprouts, spinach, kale, liver, green tea, tomatoes, and coffee)	Antagonizes the effects of warfarin leading to decreased hypoprothrombinemic effect and thromboembolic complications
Digoxin, penicillin, metformin	High fiber products (bran, pectin, oatmeal, bulk laxatives)	Large amount of fiber in the diet can interfere with the absorption
Tetracycline, fluoroquinolones	Calcium or foods containing calcium (milk or dairy products), iron, magnesium and zinc	The mineral binds with the antibiotic preventing its absorption. Take the drug 1 hr before or 2 hrs after meals.
Hydrochlorothiazide, spironolactone	Licorice	Reduced drug effects
Sedative-hypnotics	Caffeine and chocolate	In excessive amounts, caffeine (including that in chocolate) can counteract the effects of sedative-hypnotics
Levodopa	Foods high in vitamin B6 (pyridoxine) - avocados,	Enhance the metabolism of levodopa peripherally leaving less drug available to cross

	beans, bacon, beef liver, peas, pork, sweet potatoes, tuna	the blood-brain barrier and exert its effects
Levodopa	High protein diet	Decreased absorption and decreased effectiveness
Acebutolol, nadolol, captopril, quinapril Erythromycin, azithromycin, isoniazid, rifampin, amoxicillin, ampicillin Indinavir, entecavir Acetaminophen, ketoprofen Glipizide Levothyroxine Zolpidem, tacrine	Food	Decreased absorption and diminished drug effects
Sucralfate	Food	Food binds with sucralfate diminishing its GI effects.
Penicillin, ampicillin, dicloxacillin	Food	Food causes the release of stomach acids which destroy the drugs before they can be absorbed
Amiodarone, posaconazole, fexofenadine	Grapefruit juice	Inhibition of the metabolism of amiodarone by CYP 3A4 into its active metabolite, thereby decreasing its arrythmogenic effects[11]; decreased levels and effects of posaconazole and fexofenadine

In general, drugs and foods can be taken together with a very few exceptions. When evaluating an Elder's regimen, consider the following drugs that should be taken on an empty stomach:

- Anti-infectives: ampicillin, azithromycin extended release, demeclocycline, dicloxacillin, isoniazid, itraconazole solution, ofloxacin, penicillin, rifampin, tetracycline
- Biphosphonates: alendronate, etidronate, ibandronate, risedronate
- Cardiovascular: captopril, moexipril
- HIV/AIDS: didanosine, indinavir, zalcitabine
- Proton pump inhibitors: lansoprazole, omeprazole
- Respiratory: zafirlukast
- Miscellaneous: bisacodyl, ferrous sulfate, levothyroxine, melphalan, methotrexate, quinidine, sildenafil, sucralfate, trospium

If there is consistency in the diet and the timing of the medication dose over time, through clinical evaluation and laboratory monitoring most drug doses can be adjusted as needed to stabilize the outcomes. An alternative to minimize the impact of food-drug interactions is to substitute topical patches, once-a-week or once-a-month dosage forms if appropriate and affordable. These dosage forms bypass or minimize the risk of drug-food interactions on the effectiveness of the medication. Other alternatives include the use of oral disintegrating tablets that are absorbed directly into the blood stream or rectal administration to avoid the stomach.

There are some culture change ideas being implemented by Eldercare environments that will minimize the issue of drug-food interactions. One idea being implemented in homes is to remove the medication administration process from the dining room altogether. When medication administration is seen as a task it is easy to group it with the meal service without thought about the experience or choice of the Elder. By removing medication administration from the dining room the experience of dining becomes focused on the sharing of the meal alone. This idea does make a difference for the Elder, but can be a challenge for the healthcare professional to properly administer those medications that need to be

taken with food. The answer to that issue is the location of food pantry areas close to where the Elder lives so snacks of their choosing can be given at the same time if the medication needs to be given with food. Providing education to both the caregiver and the Elder allows the healthcare provider to attain the goal of the medication therapy without interfering with the dining experience.

Another idea being implemented by culture change homes is to locate the medications in the Elders' rooms and remove the medication cart from the home altogether. This change actually makes medication administration in an eldercare environment more like it would be at home. It also reduces the risk of medication errors, especially giving the wrong medication to the wrong Elder. Since most medications are given in the morning, they can easily be given upon arising as the Elder is getting ready to start their day which provides the 30-60 minutes of empty stomach conditions needed for some medications. Working with the interdisciplinary team to minimize the number of medication passes per Elder per day facilitates this change and also minimizes the risk of drug-food interactions. If most medications can be given upon arising and at bedtime, then there is enough of a time gap between meals and drug administration to assure that empty stomach conditions exist to maximize drug effectiveness. Medication passes are traditionally thought of as task-oriented functions and when pharmacists help alter that mindset by minimizing the number of medication passes per day the result is that caregivers find the time to personalize this process for the Elder. Pharmacists should also keep in mind that as medication passes are reduced, the number of pills being taken with each pass may increase which can overwhelm the Elder. There should always be a balance between the number of medication passes and the quantity of medication to be taken at each of those passes. The Elder or those closest to them, is a key decision-maker in working through this change.

Supplementing Nutritional Needs

Medications can affect the nutritional status of Elders. Some medications impact the taste of foods causing a change in the Elder's appetite or in the foods they find palatable. For example, anti-cholinergic medications not only delay gastric emptying, they also cause dry mouth which influences the taste of foods. Side effects of medications like nausea, anorexia and vomiting can affect the Elder's appetite and nutritional status increasing the need for alternative sources of nutrients.

Medications can cause the depletion of nutrients in the system, increasing the need for dietary supplementation. The table to the right captures some common examples[6,18].

Drug	Nutrient Deficiency
Antacid	Phosphate, calcium, thiamine
Anticonvulsants	Vitamin D, folate, calcium
Diuretics	Potassium, calcium, magnesium, sodium
Corticosteroids	Calcium
Isoniazid	Pyridoxine, niacin, folate
Metformin	Vitamin B_{12}, folate
Proton Pump Inhibitors	Vitamin B_{12}, calcium
Sulfasalazine	Folate
Antibiotics	Vitamin K
Antineoplastics	Folate
Estrogen	Folate
Levothyroxine	Calcium, phosphorus

There are medications that affect weight in the Elderly, either causing the Elder to lose or gain weight. Some of those drugs are listed in the table below[17]. Although there are no FDA approved medications for the promotion of weight gain in malnourished elders, medications are sometimes used for this reason. The only medication that has been studied in the elderly is megestrol acetate suspension. The studies have been limited and show mixed results. The recommendation is that medications should not be used as a first line intervention for weight gain in the elderly[27].

Drug class	Weight Loss	Weight Gain*
Antidepressants	Citalopram Fluoxetine Paroxetine Buproprion	Amitriptyline Desipramine Impramine Nortriptyline Mirtazapine
Cardiac Agents	Bepridil Digoxin Furosemide	
Appetite stimulants and suppressants	Amphetamine Dextroamphetamine Methylphenidate Pemoline Phentermine Sibutramine Orlistat Diethylpropion	Dronabinol Megestrol acetate
Benzodiazepines	Clonazapam Lorazepam	
Steroids		Oxandrolone Dexamethasone Methylprednisolone Prednisone Prednisolone
Antipsychotic agents		Clozapine Haloperidol Olanzaine Quetiapine Risperidone
Miscellaneous	Metformin Thyroxine Pseudoephedrine Antineoplastics	Cyproheptadine Lithium Omeprazole Gherelin

**These medications have not been tested in the elderly, with the exception of megestrol acetate.*

There are also many age-related issues that happen physiologically to contribute to the risk of weight loss. Evaluation of unexplained weight loss in the Elders follows the mnemonic "Meals on Wheels" [12,16]. Practitioners should evaluate for:

Medications
Emotional problems (depression)
Anorexia tardive (nervosa), alcoholism, abuse
Late-life paranoia
Swallowing disorders (dysphagia)

Oral problems
Nosocomial infections, no money
Wandering and other dementia-related behaviors
Hyperthyroidism, hypercalcemia, hypoadrenalism
Enteric problems (e.g. malabsorption)
Eating problems (e.g. difficulty in self-feeding, tremors)
Low-salt, low-cholesterol diet
Stones (cholelithiasis), shopping and meal preparation problems

Add to the above formula an environment where food is provided in an institutionalized manner. There is no meaningful conversation happening to engage the diners. Food is placed in front of the Elder without the scents of cooking to stimulate the appetite beforehand like we would have at home. Institutional dining rooms are often large, with many hard surfaces, filled with lots of people at once creating a significant noise issue to distract diners from the task at hand. Restricted diets are sometime unpalatable. Meeting the required portion sizes at mealtimes can often overwhelm an Elder who is used to eating smaller portions, thereby causing them want to eat less. Is it any wonder that Elders struggle with weight loss and decreased appetite; issues that lead to skin breakdown, decreased resistance to infection and a change in how their systems manage the medications they are taking. The answer is often to provide dietary supplements to address unexpected weight loss.

Dietary supplements are products that contain ingredients such as vitamins, minerals, amino acids, herbs, botanicals or protein needed to supplement the normal diet. Herbs, botanicals and other food extracts are called nutraceuticals. These products are categorized as foods so they do not undergo the rigorous testing and approval process that medications go through in the US. Drug interactions with nutraceuticals are not always identified. Some examples of interactions between dietary supplements and medications include ingredients, such as calcium, magnesium and aluminum, which can bind with some medications and prevent their absorption and Vitamin K which will decrease the effectiveness of warfarin. There are numerous interactions between herbal products and medications that should be monitored such as ginkgo or ginseng, often given for cognitive enhancement, which increase the risk of bleeding when taken with warfarin or aspirin. It is important when providing Elders with supplements that all the ingredients are assessed for how they interact with any medications being given and adjustments in administration times be made to assure maximum effectiveness.

Elders who require nutrition and medication administration through enteral feeding tubes have some special considerations. Where the tube is placed along the gastrointestinal tract influences the types of medications that can be used. For example, medications that require stomach acid for maximum absorption will not work well when administered via an enteral tube that is placed in the small intestine. Often medications can be administered through patches, rectally, sublingually, buccally, or through injection to avoid interactions with enteral formulas. The timing of medication administration in relation to the enteral nutrition has to be evaluated to maximize drug effectiveness. The types of medication used should be in liquid form where possible and precautions should be used to assure that the tubes do

not get clogged during the administration process. Regular flushing of the tubes using the appropriate amount of water assists in assuring the tubes do not occlude. Phenytoin, carbamazepine, warfarin, fluoroquinolones and proton pump inhibitors are some of the medications that will interact with enteral formulas and require careful monitoring to assure effectiveness.

Boosting Nutritional Intake without Medications

In homes engaged in culture change, the mealtime experience is enriched. Some homes offer buffets where the Elders can smell, see and choose from a variety of options when they arrive for the meal. Some homes offer restaurant style dining where the Elders order from a menu (containing more than just the main item and an alternate) and have their food cooked-to-order when they arrive. Providing more frequent, smaller servings of foods of the Elder's choosing can help promote better nutrition and weight gain. An example used by culture change homes is to move away from three large meals served daily to a five meal plan. The plan includes a significant morning, early afternoon and bedtime snack with two larger meals served mid-morning and late afternoon. Pantry areas and kitchens where caregivers, Elders and families can prepare meals, and continental breakfasts in the living areas are some other ideas that homes engaged in culture change are finding to make food of the Elders' choosing available 24 hours a day, 7 days a week. Having finger foods available for those that like to walk around the home to grab and eat on the go can be very beneficial.

For those Elders who are losing their sense of smell, adding flavor enhancers to the foods can help stimulate their appetite. There are essential oils that can also stimulate appetite, such as clove and grapefruit. A drop placed on a felt craft square and affixed to the shirt or napkin at mealtime can improve the appetite[14]. Just the aroma of having food prepared in an open kitchen where the scents of cooking waft up and down the hallways can increase the appetite. Where they cannot create the open kitchen, some homes are using bread machines or crock pots of soup to bring the aromas needed closer to the Elders to signal their appetites that mealtime is approaching. Not only can the Elders eat the final results, they can be involved in the cooking process as well.

In one home, the nursing staff created a recipe that was a mixture of pears, prunes and bran. They served three tablespoons in a soufflé cup at each meal to the Elders, especially those who no longer walked, and were able to significantly reduce the use of laxatives in the home. Some homes have gotten into the smoothie making business and create fruity drinks that taste good but also have the extra protein, vitamin and fiber powders that some Elders need. Making sure that the preparation and serving of the smoothies becomes a social time can help build relationships, alleviating some of the loneliness and depression that can occur in institutional settings.

For those requiring pureed diets, homes are using molds to shape the prepared food items so they look like real food on the plates when served rather than bowls of liquid on a tray. It makes the meal much

more appealing and similar in appearance to those around the Elder, which helps improve the appetite and self-esteem.

Other homes are finding alternatives to dietary supplementation by engaging the Elders in growing their own garden. The Elders choose what will be grown, help with the planting, tending and harvesting. Then they help prepare and eat the harvest. What could be better than fresh vegetables that you helped to grow? Besides the nutritional benefit, the Elders also have the benefit of accomplishment and contribution which affects their mood and self-esteem.

Another approach to supplementation is instituting a happy hour in the home. Elders enjoy beer, wine or another drink of their choice a few hours before dinner along with a snack. The option of non-alcoholic alternatives is also provided. The consumption of alcohol is not only limited, but supervised. This supplementation, combined with the social interaction among Elders, can improve mood and ultimately contribute to weight gain. For some Elders it is just like home where they would spend time with good friends sharing food and drink on occasion. Families members may also request, and provide, alcoholic beverages of their loved one's choosing for their consumption only. Research has shown that moderate intake of one or two drinks a day does not impair cognitive function and may actually decrease the risk of cognitive decline[22]. In another study, moderate daily red wine intake (200-300ml/day) for four weeks was associated with an 11-16% increase in HDL-C (a cardiovascular benefit) compared to those not drinking wine[10]. There is also a negotiated risk component to this supplementation approach. The intake of alcohol has to be balanced against the medications being taken by the Elder, the risk of falls, the increased risk of intoxication due to low body water, any history of alcoholism and the frequency and amount of alcohol being ingested. These risks explain why most eldercare environments seek medical review of the Elder's medications and past history and ask for a written order regarding the use of alcohol either upon admission or during re-certification of the medication and treatment orders. There is not federal regulation that prohibits alcohol use in long-term care environments, although there may be state or corporate rules and regulations related to this issue. The seeking of a physician's order is a risk aversion technique used in long-term care settings and supported by professional standards which would fall under Tag F281 in the federal regulations.

The environment, approach and attitude around the mealtime experience are also changing. Elders and caregivers are sharing meals together. The large imposing dining room is giving way to neighborhood or household dining rooms where the relationships are closer, mealtime conversations are more meaningful and there are fewer distractions. The Elders participate in the meal preparation and serving. In some homes, the Elder's favorite recipes are being added to the menu which gives the Elder a taste of something familiar to them and the pride in knowing that they contributed to the meal experience as well. Snack foods of the Elders' choosing are within reach all day long. Now instead of weight loss, which has been associated with greater morbidity and mortality, weight gain is an issue. Medical diets are being replaced by regular diets for everyone. This is in alignment with the American Diabetes Association recommendation that Elders with diabetes should be served a regular menu, with

consistency in the amount and timing of carbohydrates. It has not been proven that prescribing diets such as “no concentrated sweets” or “no sugar added” improves outcomes for the elderly patient[2]. This is echoed by the position of the American Dietetic Association that the quality of life and nutritional status of older residents in long-term care facilities may be enhanced by liberalization of the diet prescription[19].

According to the Commission E, there are several herbal products that can be used to stimulate appetite. These include Angelica Root, Blessed Thistle herb, Cinnamon bark, Coriander seed, Devil’s Claw root, Fenugreek seed, Gentian root, Hops, Horehound herb, Lavender flower, Lemon balm, Onion, Orange peel, Soy Phospholipid, Valerian root, Yarrow and Brewer’s Yeast[4]. Despite the indication that these herbal products stimulate appetite, studies demonstrating their effectiveness in the elderly and potential drug interactions are limited. Several of these herbs are often used in recipes, so beyond taking them orally, having foods cooking in the Elder’s living spaces with these herbs added could create aromas to stimulate appetites in anticipation of the upcoming meal.

Appetites increase when we are more physically active. Culture change homes are creating environments where the Elders not only have access to rehab/therapy services but where they can become engaged in daily life around the home as they choose. For some Elders being able to dust, make their bed, care for pets or plants, garden, prepare meals, set the table, do the dishes, and play with children provides them with meaning and purpose as well as keeping them moving during the day. Even therapists are catching on to the idea that simply going through the motions of physical therapy is not enough. The motions need to have a purpose beyond exercising the muscles if the Elders are going to stick with it. They are beginning to develop individualized rehabilitation programs that not only address the needed exercises but are done in a manner that meets the emotional needs of the Elders as well.

Elders will eat better when they feel better. Assuring that pain is well managed with medications, and non-pharmacological interventions, can assist in improving well-being and therefore appetite. Reducing the dose of, or eliminating, medications that can cause upset stomach, altered taste perceptions or lethargy can also improve well-being and appetite.

All of the above ideas are just a taste of the creativity that is coming from homes working on culture change. These ideas are decreasing the need for dietary supplementation, or medications used for appetite stimulation, which is a big issue in institutional Eldercare settings. Dietary supplements are not only costly; they bring the risk of drug interactions when added to the complex medication regimens the Elders receive. These changes are also impacting the need to use medications to supplement a poor diet or improve the mood of someone who has lost hope in their institutional environment. Pharmacists must educate homes to look at non-pharmacological or environmental adjustments first before adding another drug to the medication profile.

Pharmacist Support and Involvement

Consultant pharmacists play an important role in supporting the culture change efforts of nursing homes, especially when it comes to dining and food. Do what you do best. Rid the Elder's medication regimens of those unnecessary medications which serve no purpose when it comes to the quality of life outcomes the Elder desires. Use the Beers List as a starting point and add in what is learned about the Elder's life goals to guide the reduction in unnecessary medications and use of non-pharmacological alternatives. Medical best practices do not always equate with quality of life as experienced by the person who received the medication or treatment. Work with the Elder, their family, the caregivers and the interdisciplinary team to minimize the number of medication passes experienced by the Elder each day. Help simplify the regimen, paying particular attention to moving administration away from mealtimes when possible. Encourage homes to have snacks available, of the Elder's choosing, to provide with those medications that need to be taken with food. Help the home identify opportunities to use real food instead of dietary supplements for those Elders that need the additional support.

Pharmacists should be committed to individualized care. It can be easy to lose direction when Elders are categorized by their diagnoses because the focus is on a rule, regulation or consultation guideline instead of maximizing the Elder's choices. One size does not fit all when it comes to truly caring for individual human beings. The pharmacist's role is to help nursing home providers to develop medication policies and support dining practices that are Elder-focused and provide flexibility while still achieving a balance between the Elder's life goals and therapeutic goals.

As a consultant pharmacist, begin to shift your perspective about each Elder. Get to know them beyond their diagnosis and medication regimen. Find out what their life goals are and then become an advocate on the interdisciplinary team to find ways to make sure the medications and treatments being provided support those life goals rather than continuing to dominate the Elder's daily life. If you do not have time to spend with each Elder on each visit to the nursing home, prioritize who you spend time with. Focus in on a few Elders at each visit at the highest risk for drug-related issues that month. If the Elder cannot effectively communicate their choices, interview their family members or the caregivers, review the social histories and life interests (activity summaries). Move away from time-specific medication passes so the Elder can experience a daily routine that fits their choices each day rather than being awakened unnaturally because all morning meds are given at 7:00am, give or take an hour. By dosing medications as "upon arising", "at bedtime", and "with meals" it will deinstitutionalize the daily schedule providing the opportunity to have the Elder sleep in, go to bed when they choose and get medications with food when they choose to eat. It will also eliminate the morning road rage that happens in institutions so the caregivers are more relaxed in their support efforts which will improve the mood for the Elders as well. Consider self-administration of some or all medications where appropriate, identifying packaging and documentation methods to support the change. Help everyone find their way home.

Homes implementing culture change are wise to the importance of relationships. They have implemented consistency in the staffing assignments for nurses and nursing assistants. Beyond that they

are creating small teams of individuals that are consistently spending time with the Elders including housekeeping, dietary, maintenance, activity and even administrative office employees. Recognize the expertise that all these caregivers bring to the conversation. Educate the whole team that cares for the Elder daily about the medications being used and the potential side effects. Engage them when you are in the home because they can give you information about the daily life patterns of the Elders and how the medications are impacting their lives. Also educate them on alternative approaches to care which can reduce the need for medications altogether.

Consultant pharmacists provide nursing homes with a great deal of data about the medications being used and the average number of prescriptions being taken per day. Take time to personalize the data. For example, chart out the flow of medication administration for the Elder that takes the highest number of medications per day and one who takes the lowest. What do you learn about the role that medications and treatments play in their life? Why is there a difference between these two Elders? Work with the interdisciplinary team to go one-by-one through the medication profiles of the Elders, starting with those on the highest number of medications and administration times per day and begin to remove unnecessary medications and simplify the dosing where possible. When is the medication pass timed to the efficiency of staff needs versus the choice of the Elder? Switch to longer acting or alternative dosage forms when it is appropriate and affordable. Identify ways to change the living environment so that medications, especially psychoactive medications are no longer needed.

Eldercare environments that are deep into culture change have been able to eliminate or significantly reduce the use of psychoactive medications. This can have a major impact on the quality of life for an Elder when you consider the reduced risk for side effects (e.g. tardive dyskinesia) and falls. These Eldercare environments have also been able to reduce the overall use of all medications. In his book *Life Worth Living*[26], Dr. William Thomas shares data from the first home that implemented the Eden Alternative. The average cost per prescription (1992-1993) for the test home was $14.41 and for the control home was $16.80 and the average cost of medications per resident per day during the study was $1.44 for the test home and $2.32 for the control home. Part of the cost difference can be explained by the fact that the number of prescriptions per resident per day in the test home went from 3.7 to 2.35, where the control home went from 4.1 to 4.25 during the same time period. The percentage of residents in the test home prescribed at least one psychotropic medication per day went from 41% to 31% from 1990-1993. More studies need to be done to demonstrate the impact that these culture change efforts have on the use of medications, most especially psychoactive medications. This is another role the pharmacist can play in leading these research efforts, publishing the results and presenting at professional conferences.

The education of pharmacists must be committed to implementing geriatric education as a core component of its curriculum so that pharmacists can show competencies in these areas. In 2007 the American Journal of Pharmaceutical Education published an article entitled, “Geriatric Pharmacy Education: A Strategic plan for the Future”. This publication stated that a challenge to colleges and

schools of pharmacy in the 21st century is to prepare students and practitioners to meet the growing pharmaceutical needs of our older adult population and to meet those needs in a variety of care settings[18]. Currently, curriculum in pharmacy schools varies widely when it comes to geriatric content. A survey done in 2006 in 89 United States colleges and schools of pharmacy reported that only 43% of the respondants offered a stand alone geriatric course. A positive note from that same survey was that all of the schools responding did offer advanced pharmacy practice experience in geriatrics or long term care.

Professional organizations have made significant contributions in the development of geriatric pharmacy education. The American Association of Colleges of Pharmacy (AACP) and the American Society of Consultant Pharmacists (ASCP) collaborated to produce a Geriatric Pharmacy Curriculum Guide in 2002 which was later revised and released again in 2007. This guide provides a detailed list of geriatric topics as well as learning objectives that can be used to help design geriatric based curriculum for our pharmacy students. What is encouraging for advocates of culture change, is that organizations such as the American Geriatrics Society and the American Association of Colleges of Nursing include a category of "Attitudes and Values" as a category in geriatric competency. This category includes; understanding the ethical issues in the care of older adults, appreciation for the cultural influences of age, the ability to view people as individuals, and awareness of the myths and stereotypes about older adults[18].

The Commission for Certification in Geriatric Pharmacy began offering a geriatric certification exam in 1997 to allow for designation of those pharmacists showing advanced knowledge or skill in the area of geriatric practice[5]. Pharmacists committed to serving the geriatric population must take a leadership role in providing education to pharmacy students as well as being devoted to life-long learning in the area of geriatrics.

Conclusion

Mealtime is about more than just satisfying the physical need for hunger. There are social and spiritual aspects to the meal experience that are important. The total experience needs to include the choice of menu items, preparation, serving and eating of the meal. The environment within which the meal occurs, the setting as well as the people around us, all influence how we experience the meal itself. Community, especially around mealtime, is the antidote to institutionalization. Pharmacist can help to enrich that experience by removing medication administration from mealtimes.

Culture change homes are learning that when we shape and use the potential of the whole environment, when we pay attention to the spiritual as well as the physical needs of the person, we improve the well-being of all and therefore decrease the need for medications. Elders are often over-medicated and some of that is triggered because of their normal reactions to the abnormal environment they find themselves living in. When that environment is normalized to home, through culture change efforts, the needs for these medications goes away along with their undesired side effects.

Quality of life for each person has to come first, with medications and treatment being adjusted behind the scenes to support the life goals for each Elder. The interdisciplinary team needs to be prepared to negotiate risk with the Elder. Risk taking is a normal part of life, even when it goes against medical best practices. Identify the risks, provide the education, but ultimately support the Elder's goals first. Individualize medications and treatments to the person rather than the standard set of practices for each medical diagnosis or condition. Be willing to spend the time to build relationships with the Elders and those who are close to them every day.

Pharmacists are an asset to homes engaged in implementing culture change. Become educated in culture change ideas. Be willing to think outside the box and attempt new approaches that no one has thought of yet in an effort to bring the Elder closer to home. Everyone can make a difference if they are willing to try. Move medications and treatments out of the driver's seat in the Elder's life. Educate your peers on the interdisciplinary team about what you are learning. Become an advocate for the changes desired by the home and be a support system when your peers are struggling with making the needed changes. Include culture change concepts when making recommendations such as consistent assignment, food pantries, smaller living environments, removing overhead paging, moving away from time-specific medication passes, removing the medication cart and restoring the Elder's daily routine (awakening, sleeping, meals, meds and bathing).

Get involved in your local, state and national associations. Ask for presentations about culture change ideas at your next conference and be willing to be the speaker when you have stories to share from the eldercare environments you support. Show people it can be different. If you are connected with a local school of pharmacy, encourage them to begin to teach person-directed care approaches in their classes. If you are a preceptor for pharmacy students, teach them how to use their knowledge to individualize the medication regimens so they support the quality of life for Elders rather than just trying to address diagnoses and symptoms. Help them to begin to think differently. When attending conferences, question speakers about potential alternatives to using medications to treat issues related to Elders living in institutional environments.

In the end, these culture change ideas all hinge on relationships. Relationship is the fundamental building block of a transformed culture. This will challenge those organizations providing consultant pharmacist services to long-term care settings. The current business model is based on the number of charts that can be reviewed in a day rather than the relationships being built, the quality of the reviews or the individualization of the approaches. Time, in this model, is working against the pharmacist. They do not have the "time" to attend care plan or other team meetings weekly or participate in implementing culture change ideas. They need to get in, get done and move on which makes the focus on diagnoses and medications (tasks) a driver rather than individualization of treatment plans (person). The same types of issues can be expressed for those organizations that prepare and deliver the medications. Ideas such as locked medication cabinets in each Elder's room instead of the large medication cart or self-administration of medications will create challenges related to packaging, delivering and exchanging medications. Issues will arise such as how to secure the medications so other

Elders cannot access them, how to properly monitor the storage, administration and reconciliation of controlled substances, how to check for outdated medications and how to exchange the medications without having strangers enter the Elder's room unexpectedly. When the consultant pharmacist needs to observe the medication administration process, how will they do that? Creating medication administration records (paper or electronic) that do not have an administration time listed for each medication will require software changes. The integration of technology, such as PDAs or notepads, to capture the documentation needed as medication administration becomes decentralized will be important in assuring that medication errors do not occur and record keeping is accurate. Those pharmacy related organizations that can create the new business model, and tools, that support the culture change efforts of long-term care settings will find themselves to be pioneers in a field that has so much to contribute to these efforts.

At this point in time, the regulations actually support the ideas presented in this paper. Removing unnecessary medications from the drug regimens of Elders is F329 in the federal regulations. The Elder's right to self-determination and choice is covered in F242. Long-term care settings are expected to have contracts with consultant pharmacists to assure that the medication regimens are appropriate for each Elder. Beyond the survey process, the interdisciplinary team should hold each other accountable to assure that all unnecessary medications are being removed from the Elders' drug regimens. With the advent of Medicare Part D, pharmacists are able, depending on the drug plan, to bill for pharmaceutical care. The more the regulatory and oversight environments push for person-directed care the faster the movement in that direction will occur. If there are innovative pharmacy practices out there that are a good fit with the culture change efforts, they should be acknowledged and rewarded for their efforts. The monitoring and evaluation of Medication Therapy Management Services, under Medicare Part D, in long-term care settings should include provisions that look at individualization of medication regimens and support for culture change efforts from the pharmacy profession. Extend the pharmacists-provided MTM services billing under Current Procedural Terminology (CPT) codes 0115T, 0116T, and 0117T to include consultant pharmacist services in long-term care settings. That would facilitate the development of a new business model that would promote the pharmacists taking time to know the person first and individualize their recommendations. Educate all state surveyors so they are aware of the medication-related changes that can be implemented by culture change homes so they can support their implementation. Provide them with the knowledge they need to be able to complete their survey tasks in an environment where the information they seek may be in new locations, such as medication cabinets in the Elders' rooms. Consider revising regulations/guidance to reflect the new approaches such as non-time specific medication passes and medication cabinets in Elders' rooms. It is not a federal regulation but a nursing standard of practice that surveyors traditionally have cited at Tag F281 Professional standards when a time specific medication with the variance of an hour before or after is not adhered to. Under Tag F332 and F333 Medication Errors - Timing Errors although this "one hour window" is mentioned, surveyors are instructed to count an error only if it causes discomfort or jeopardizes health/safety: "Count a wrong time error if the drug is administered 60 minutes earlier or later than its scheduled time of administration BUT ONLY IF THAT WRONG TIME ERROR CAN CAUSE THE RESIDENT DISCOMFORT OR JEOPARDIZE THE RESIDENT'S HEALTH AND SAFETY " and refers the surveyor

to facility policy to determine dosing schedules. Surveyors will need guidance on the evaluation process as medication times are changed to “upon arising”, “at bedtime”, etc., and facilities will need to work on developing policies that fit the new guidance. There should be consistency from state to state in how this medication administration process is reviewed and evaluated.

Regulatory considerations at the state level might include the implementation of medication aides in all states which would facilitate the implementation of medication cabinets in the Elder’s rooms, as well as broaden the knowledge base of those most closely associated with the Elders. The collection of detailed social histories for each Elder that are placed in the Elder’s medical record would also be a valuable tool to assist pharmacists, and others, in getting to know the Elder’s life story and enable personalization of the medication regimen as well as non-pharmacological interventions. Reviewing state regulations and removing any barriers to non-time specific medication passes and removal of the medication cart from the home will be an important step forward in restoring the Elder’s daily routine in their long-term living environments. There may also be cause to review and revise at any regulations which restrict or prohibit the intake of alcoholic beverages in long-term care settings, especially if they supersede resident rights.

The medical and nursing professions play a vital role in medication and treatment related changes in the culture change journey. The professions need to identify the types of changes that can be made and provide education both in the educational institutions and continuing education for practitioners so they have the knowledge and skills needed to assure these change are made in a manner that support the Elder’s life goals as well as therapeutic goals. Identify those professionals actively participating in culture change environments, and implementing innovative approaches to eldercare, and provide them with a forum to share their stories, data and personal changes they have made in how they practice their profession. Pharmacists should educate nurses on the types of recommendations to be made to prescribers so that medication regimens remain simplified. For example, if an Elder has successfully been moved to twice a day drug administration, a nurse would want to make sure that any new medication orders fit within that schedule if at all possible. Otherwise, the regimen can easily become more complicated.

Pharmacists have an important role to play. They can help create the recipe for success that will begin to transform the lives of Elders living in long-term Eldercare settings today and in the future. We may all be there some day. What kind of home do we want? Start advocating for the changes that make it home today.

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Denise E. Hyde, PharmD, RP served as a consultant pharmacist and then pharmacy manager in a Veterans home for twelve years (1988-2000). During that time the home implemented culture change using the Eden Alternative. Denise assisted in training other homes in the Eden Alternative philosophy starting in 1999 and then became a Regional Coordinator in 2001 for the organization supporting homes implementing the Philosophy in six states. In

2005 she worked for the state Quality Improvement Organization assisting with culture change efforts in 40 nursing homes and conducting a Medicare Part D evaluation project. In 2009, she became the Community Builder for the Eden Alternative. Her role is to support homes on the Eden Registry, provide training, and work on special projects. Denise has been involved in teaching about the Eden Alternative in Australia and Japan. She has been a guide and presenter at Pioneer Network and Eden Alternative conferences and she was part of a panel presentation on culture change at the ASCP conference in 2007.

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Food, Pharmacy and Culture Change: A Recipe for Success
Recommendation Summary

Healthcare Professionals:

- Create individualized medication regimens based on the Elder's life goals
- Eliminate unnecessary and potentially inappropriate medications from the Elder's medication regimen
- Reduce the number of medication passes experienced by the Elder per day without overwhelming them with the number of doses they receive at each pass
- Schedule medication administration away from mealtimes
- Eliminate time specific medication administration in long-term care settings so administration can be individualized to the Elder's preferences
- Take time to know the person first before the diagnoses, disabilities, medications and lab values
- Develop a new business model for the consultant pharmacist which provides the needed time for them to be involved in supporting culture change efforts in long-term care setting
- Promote self-administration of medications and treatments when appropriate
- Request and/or provide education on person-directed care approaches at professional conferences
- Identify alternatives to medications including changing the care environment and approaches so they are person-directed and closer to home
- Make geriatric education a core component of college, university and continuing education for healthcare professionals
- Provide education on how to negotiate risk with the Elder when their life goals are contrary to best medical practices
- Develop new packaging, delivery, exchange and documentation systems to support non-time specific medication passes and medication cabinets in Elder rooms
- As an interdisciplinary team, hold each other accountable for learning about and exemplifying the practices that support person-directed care
- Support the use of real food before the addition of dietary supplements

Survey System:

- Review and remove any regulations or guidelines that are a barrier to the implementation of non-time specific medication passes and the placement of medication cabinets in Elder rooms
- Implement medication aides nationwide
- Insure that social histories are included in the Elder's medical record nationally
- Identify and reward innovative healthcare professional practices that support person-directed care in long-term care settings
- Broaden the pharmacists-provided MTM services billing under Current Procedural Terminology (CPT) codes 0115T, 0116T, and 0117T to include consultant pharmacist services in long-term care settings