

**Pharmacist Involvement in the Patient-Care Process: A Survey Evaluating the Patient  
Perspective on Understanding Medications**

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The Alabama Quality Assurance Foundation (AQAF) is a nonprofit Centers for Medicare & Medicaid Services (CMS) consulting firm which is part of a the larger Quality Improvement Network (QIN), atom Alliance. They are focused on the improvement of healthcare process, data usage, and the implementation of quality improvement approaches. AQAF provides education, quality improvement training, and technical assistance to healthcare partners in Alabama. Their work centers around helping to improve the opioid epidemic, transitions of care, and adverse drug events.

Know Your Meds Alabama (KYMA) is a campaign dedicated to the prevention of medication-related harms to Medicare beneficiaries within the state of Alabama. The KYMA campaign collaborates with healthcare professionals and patients within the state, including pharmacists and medical facilities to improve disease awareness, medication reconciliation, medication safety, and patient adherence to medications. Additionally, the collaborative worked towards identifying and reducing inappropriate use of antipsychotic medications among nursing home residents and improving antibiotic stewardship to combat the growth of resistant bacteria within the state.

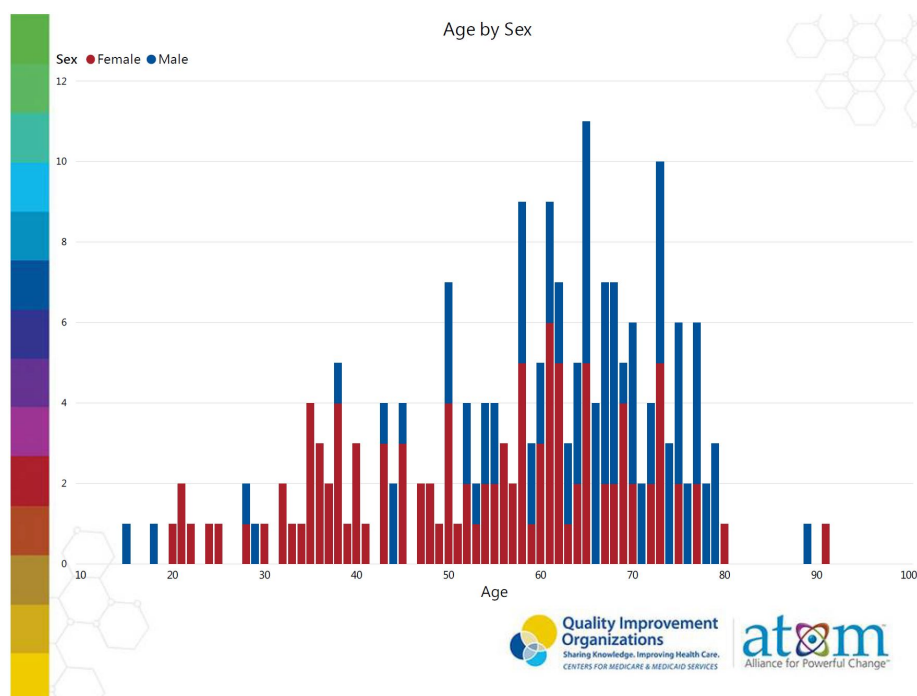
To accomplish their mission of a reduction in medication-related harms, the KYMA campaign set goals focused on Alabama high risk medication (HRM) Medicare Beneficiaries. The goals of the campaign included a 40% reduction in adverse drug events, a reduction in 30-day hospital readmission rates, a reduction in the inappropriate use of antipsychotic medications use among nursing home residents and recruiting 100 outpatient clinics to embrace and implement the Centers for Disease Control (CDC) Antibiotic Stewardship Program.

Working in close conjunction, the KYMA campaign, AQAF, American Pharmacy Cooperative, Inc (APCI), and Alabama Pharmacy Association (APA) developed a survey targeted at the independent pharmacy patient population of Alabama. The goal of the survey was to identify potential barriers patients indicated encountering throughout the healthcare process, disease management awareness, and patient preference for medication questions. Particularly, the survey targeted patient opinions of medication information gathering as it related to pharmacy practice, and the level of involvement the patients had in their own care. The results of this survey will be presented in this article.

## Results

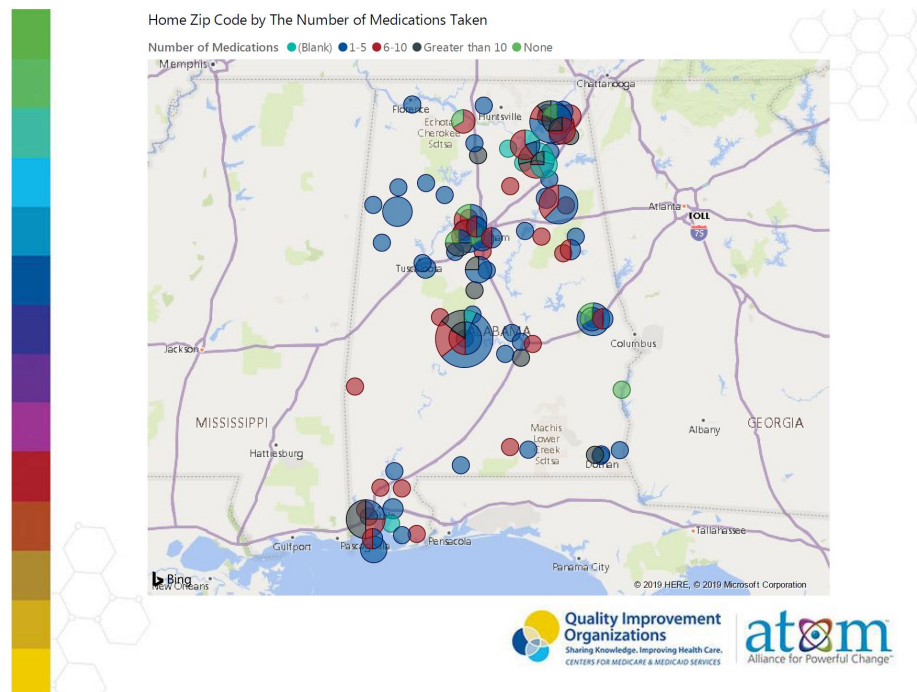
The survey was composed of 10 questions formatted using multiple choice options. Survey volunteers were instructed to provide age, gender, and zip code, in addition to answering the questionnaire. A total of 202 surveys were completed by patients throughout Alabama. 129 completed surveys were faxed in, 8 surveys were completed using a web link, and 65 surveys were completed at the APA meeting in Auburn, Alabama. As indicated by Figure 1, 55% of the surveys completed were completed by females. Figure 1 also indicates the distribution curve of surveys based on age. The average age of patients which completed the surveys was 65 years old with most of the surveys being completed by those between the ages 50 - 80.

Figure 1



Patients were surveyed on the number of medications they were currently prescribed, as well as, their home zip code location. Figure 2 indicates the various zip codes within Alabama where the surveys were completed. The radii of the circles located within Figure 2 indicates the number of individuals which completed surveys within their indicated zip codes. Additionally, the circles are subdivided into different color categories, which indicates the number of medications patients who completed the survey stated they were prescribed. 25% of volunteers who completed the survey indicated they were taking 6-10 medications daily, while 12% indicated they were taking >10 medications daily. The “Blank” designation located within the legend of Figure 2, is used to identify surveys which did not indicate the total number of medications taken by the patient. The figure shows most patients taking medications are in Northeast, Central, and Southwest Alabama.

Figure 2



As indicated by the graph in Figure 3, 79% of patients reported the utilization of only 1 pharmacy. Additionally, as indicated in the pie chart in Figure 4, 97% of patients also reported a preference to using a physical pharmacy to fill medications, compared to 3% of patients who reported a preference for mail order pharmacy. This figure speaks to the patients' preference to stay with one local pharmacy due in part to the relationship and trust they have built with their local pharmacist to help them take care of their disease management.

Figure 3

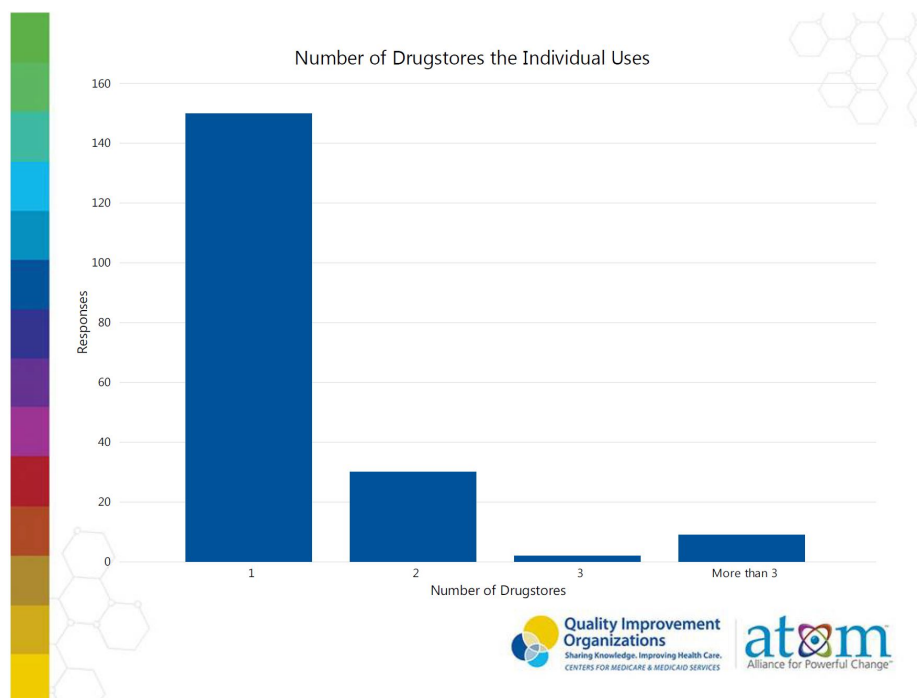
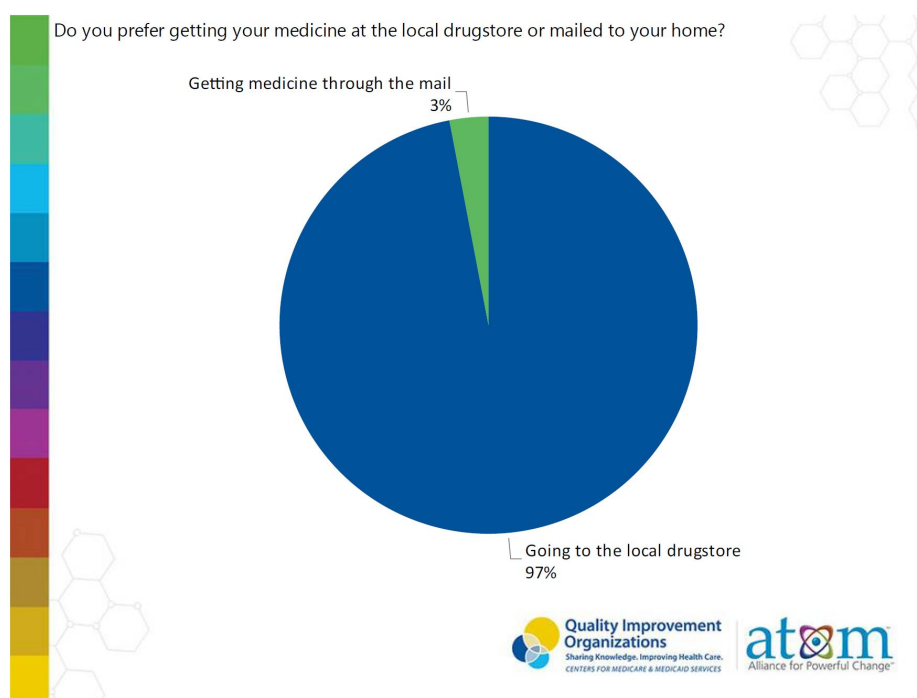
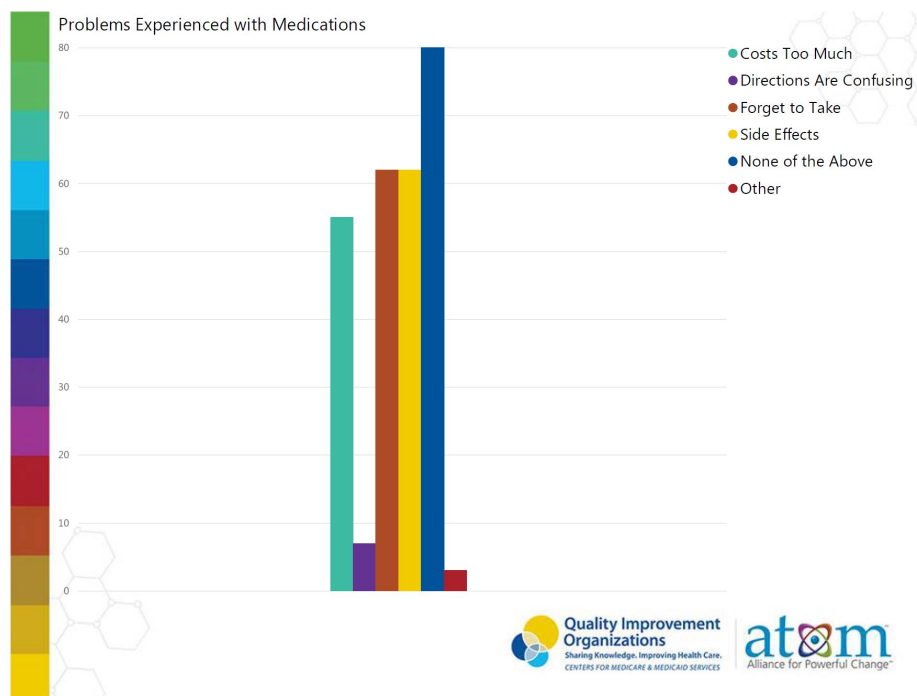


Figure 4



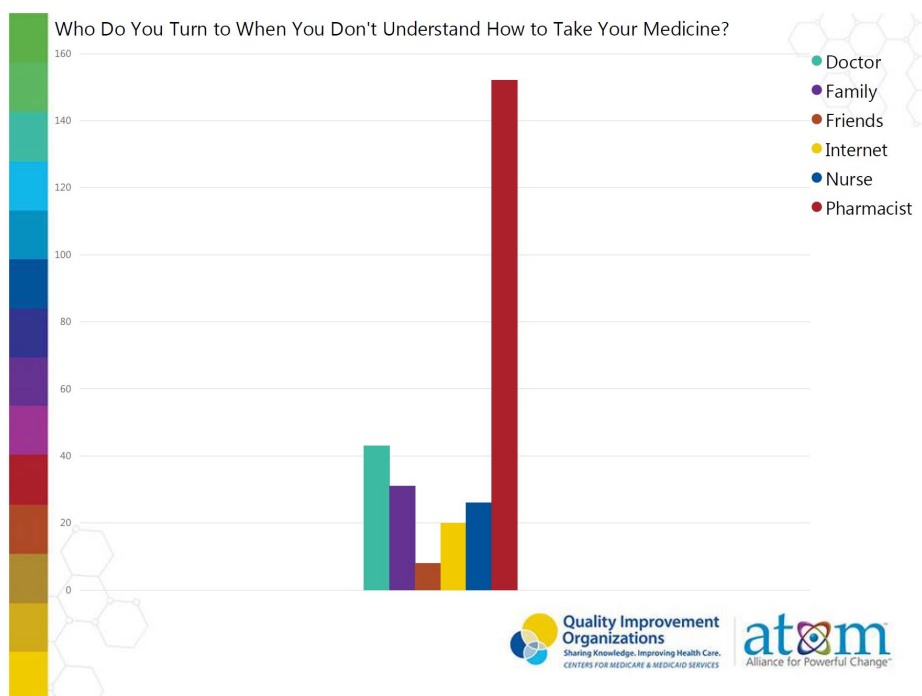
Patients were also asked to indicate any problems associated with their medications. The question asked survey responders to select all options which applied to their situation. The options included increased costs, inability to understand directions printed on the labeling, difficulty remembering when to take the medications, or medication adverse effects. Additionally, a “None of the Above” option and “Other” option were available for selection. The “Other” option provided a comment bar for the patient to indicate additional problems associated with their medications. Figure 5 provides the distribution of options selected by survey responders. The majority of patients indicated “None of the Above” as the best indications for problems associated with their medications; however, the “Other” category received <10 selections, and did not indicate whether individuals who selected “None of the Above” truly had no problems associated with their medications, or if the individuals deemed it unnecessary to comment. The second most noted barrier to taking medications was forgotten to take the medication and side effects. The third barrier was cost. Potential solutions to some of these barriers may be to ask the patient at every visit how they are taking their medications or leaving an informational page at the register on tips for medication reminders, who to call if you have medication questions on side effects, and cost. If you would like a copy of a one-page medication tips informational flyer, please contact Jeff Church at APCI via email [jeffc@apcinet.com](mailto:jeffc@apcinet.com).

Figure 5



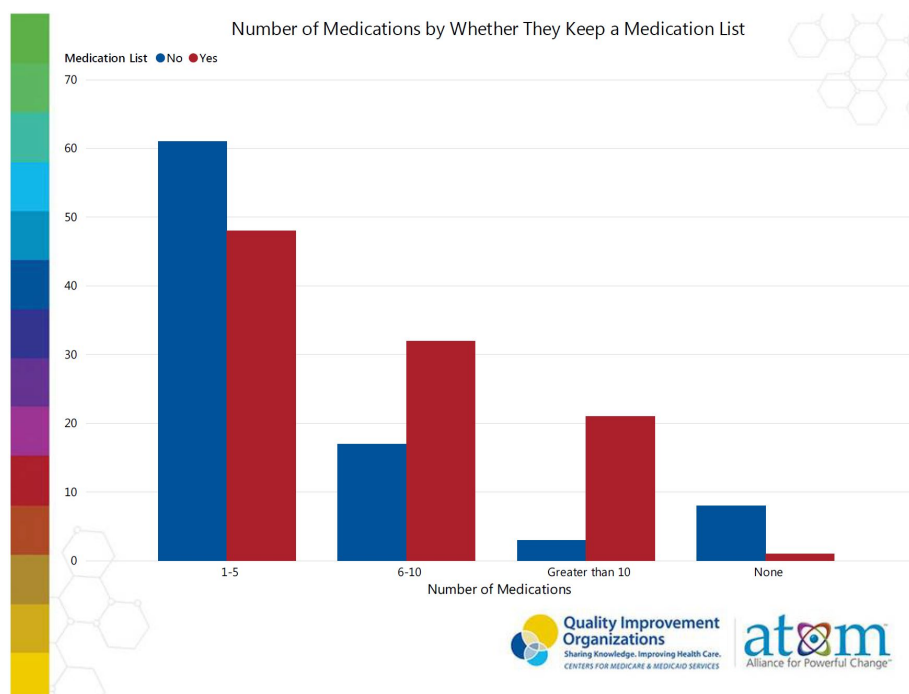
One of the questions asked in the questionnaire requested the responders to indicate who they sought medication knowledge from in the event they did not fully understand the appropriate administration of their medications. Figure 6 indicates the distribution of responses submitted by patients regarding who they turn to when medication related questions arise. The majority of responses (>150) indicated pharmacists as the primary avenue by which patients seek answers, followed by physicians, then family. This is a good indication the patients view pharmacists as the medication experts and this is part of why pharmacists are the highest utilized health care provider in the health care system. However, there is still part of the population in Alabama that sees other healthcare professionals as the medication experts. There is an opportunity for our local pharmacists to continue to promote their expertise to the patients of Alabama.

Figure 6



The final questions of the survey asked patients to indicate their utilization of medication lists to maintain an accurate history of their current medications. If the patients indicated they did utilize a medication list, they were then asked to indicate the frequency at which it was updated, and who else had a copy of the medication list. Out of the 202 survey results, 53% of the patients indicated they maintained a medication list. Figure 7 compares patients with and without medication lists based on the number of medications they reported taking daily. According to the results of the survey, as the number of medications a patient takes increases so does the likelihood the patient is using a medication list to keep track of their medications. Approximately half of our respondents are not keeping a medication list and this simple act could help them during a healthcare event where they cannot verbalize what they are taking. This would help improve the accuracy of the medication reconciliation should a patient be admitted for a healthcare event and prevent an adverse drug event.

Figure 7



## **Discussion**

Pharmacists can assist patients with an understanding and management of their medications for various health problems. Though communication through verbal counseling and medication guides are available to the population, pharmacists, and other practitioners, must make the extra step to ensure patients fully understand the reasoning behind their disease states, and the medications that treat them. To accomplish the goals of KYMA and AQAF, the empowerment of patients to take their health into their own hands is a key factor in improving the health of Alabama citizens.

The survey showed a high level of patient loyalty to a single pharmacy, with many also preferring to receive their medications from a local pharmacy compared to receiving medications through the mail. The pharmacist/patient relationship is an important factor that is sometimes overlooked and can lead to an improvement in a patient's health. This level of trust and loyalty to individual pharmacies provides a large opportunity for pharmacists to make a difference in the lives of their patients.

As indicated by the results of the survey, only 53% of the population surveyed indicated they kept a medication list. Communication between providers is essential to the care of patients; however, in some instances, it is not always communicated in a thorough manner. Pharmacists are the best source of what medicine the patient is taking since they are dispensing the medications. During a visit to the pharmacy it may worth asking to see the patient's medication list if they have one to ensure it is updated with the most recent filled prescription information. This can also help the pharmacist in the patients care by uncovering any medication changes that the pharmacist may be unaware of. The provision of an accurate medication list, or medication list templates, provides patients an opportunity to be involved in their own care. Additionally, the provision of accurate medication lists to all providers may lead to a reduction in adverse drug events, significant drug interactions, medication duplications, and inappropriate usage of medication classes.

Pharmacists are an integral part to the provision of patient care. In the community setting, pharmacists represent an easily accessible resource which are highly utilized by patients, as indicated by the survey results. In an age where technology is at the fingertips of most of the population, patients still seek out the knowledge and advice of their local, community pharmacists when questions regarding medications arise. Thank you to all the Alabama pharmacists who provide health care to our friends and family in Alabama. I hope you have found this information useful and should you have any questions or would like to see what your local zip code responses were please contact Jeff Church at [jeffc@apcinet.com](mailto:jeffc@apcinet.com).