Prior authorization (PA) is a formulary management strategy used to assess medical necessity and to encourage the use of effective and less costly therapies. Public and commercial payors advise providers to track patients' PAs and actively assess the need for reauthorization to ensure continuity of care and prevent delays in therapy, particularly for medically complex patients. The Community Case Management (CCM) program is a care coordination program for medically complex Massachusetts Medicaid members who require more than two hours per week of continuous skilled nursing. These members frequently utilize PAs.

To assess the effectiveness of a three-part, proactive intervention in prompting new PA submissions and/or provider response prior to PA expirations in a medicaid complex subset of the MassHealth population.

Methods:
This quasi-experimental, pre-post evaluation included expiring PAs for CCM members with MassHealth Fee-for-Service/Primary Care Clinician/Primary Care Accountable Care Organization coverage for at least four weeks after the final intervention. – The intervention group included PAs set to expire between December 1, 2018 and February 29, 2020 for enrolled members as of October 31, 2019. – The historical comparison group included PAs set to expire between November 1, 2018 and February 28, 2019 for enrolled members as of October 31, 2018. – PAs for medications in Protected Health Classes and those the investigator deemed clinically inappropriate (e.g., short-course antibiotics) for a new submission were excluded. – The primary endpoint was the percent of PA submissions with positive versus negative outcomes among the intervention and comparison groups. – Inferential statistics were performed using the t-test to analyze the difference between positive and negative outcomes among the intervention and comparison groups.

Results
The intervention group (N=137) was more likely to have positive outcomes versus the comparison group (N=133). (X^2=86, p<0.0001, Figure 4). On average, PAs were submitted 2.7 days prior to expiration date in the intervention group versus 13 days after PA expiration in the comparison group. (X^2=96, p<0.0001, Figure 4).

The historical comparison group included PAs set to expire between November 1, 2018 and February 28, 2019 for enrolled members as of October 31, 2018. – PAs for medications in Protected Health Classes and those the investigator deemed clinically inappropriate (e.g., short-course antibiotics) for a new submission were excluded. – The primary endpoint was the percent of PA submissions with positive versus negative outcomes among the intervention and comparison groups. – Inferential statistics were performed using the t-test to analyze the difference between positive and negative outcomes among the intervention and comparison groups.

Discussion
To avoid duplicate outreach to the same providers, outreach was conducted based on PAs expiring in the upcoming two weeks coupled with PAs expiring in the upcoming four weeks. The proactive intervention resulted in a 3.6-fold increase in new PA submissions being submitted and/or provider response compared to the historical comparison group (Figure 4).

Proactive intervention influenced the timeliness of PA submission as highlighted by the difference in days of PA submission compared to PA expiration date in the intervention group versus comparison group.

The majority of PAs submitted were received after Day 4 (28%) or Day 7 (48%) of outreach, illustrating that multiple forms of outreach (e.g., phone call, fax) may be necessary for PA submissions and/or provider response (Figure 5).

Among the intervention group, the majority of PAs (75%) resulted in successful outreach and a new PA submission (Figure 6).

Limitations
Over the course of outreach, multiple intervention dates fell on state and federal holidays in which the provider’s offices were closed, thus delaying PA submissions.
Outreach could not be completed for four providers due to unverifiable phone and fax numbers.
The provider response (e.g., clinical rationale, no relationship with provider) could not be determined for negative outcomes within the comparison group.
The status of member and provider relationship for PAs in the intervention group could not be determined prior to outreach calls.

Conclusion
Proactive outreach in the intervention group resulted in a greater percentage of PA submissions and provider response compared to the historical comparison group. Proactive outreach resulted in a significantly reduced time to PA submission compared to the comparison group.

Future considerations
Future studies could examine proactive PA interventions for additional at-risk populations, pediatric, high cost specialty medications, members exceeding an established threshold of PAs.
Future studies may also compare various forms of outreach (e.g., mail, phone call, fax, email and timing of outreach (i.e., frequency) to determine the most effective approach.
Results of an operational workforce investment and the return on investment of this intervention will be conducted.