

STREAMLINING RADIATION ONCOLOGY POLICY REVIEW PROCESS USING IMPROVEMENT SCIENCE TOOLS

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INTRODUCTION & AIM

Policies define the safety, professional and legal standards for all Healthcare institutions. A robust review process must be in place to ensure policies are continuously updated and accurately reflect the current practice and legislation¹. This critical activity often takes significant time and resources. This study involved streamlining the policy review process for a large Canadian Radiation Oncology Program using a number of improvement science tools², to enable resource optimization and value creation for their patients and healthcare teams.

METHOD

The old policy review process (Figure 1), which involved multiple manual steps, was mapped out using a Swim Lane diagram to clarify the activities and human resources involved. All key stakeholders were interviewed to identify process strengths and pain points. The process was then redesigned using lean principles³ to reduce waste and create value for stakeholders. The new policy review process (Figure 2) utilized online project management application (i.e., Microsoft Planner), online document management application (i.e., Microsoft Sharepoint) and automation tools (i.e., Microsoft Power Automate) to streamline various steps. After reiterative testing and revision of the process using the Plan-Do-Study-Act framework⁴, a pilot study to compare the time and workload involved to review 5 policies under each process (new vs. old) was performed. Qualitative feedback regarding the changes were also obtained.

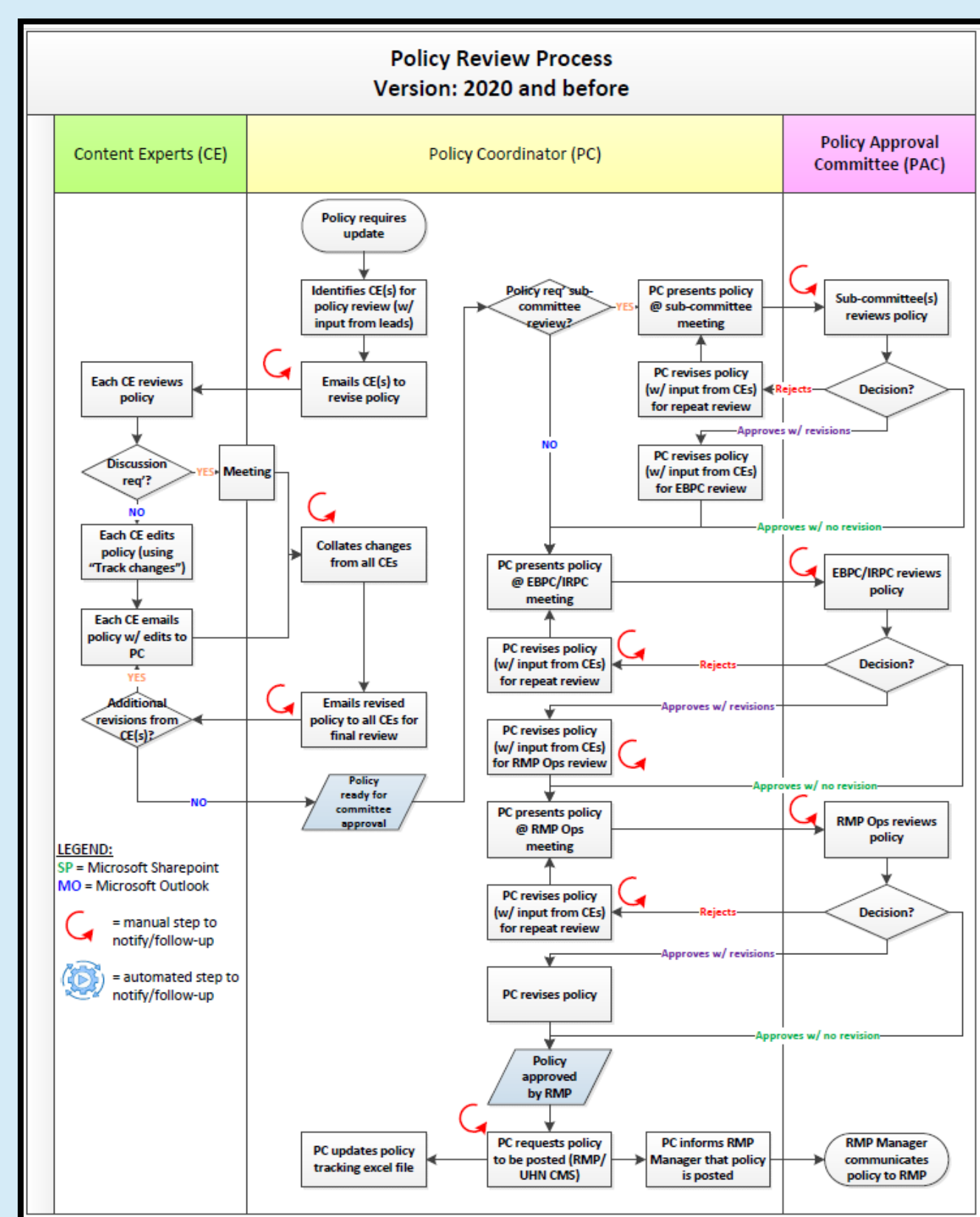


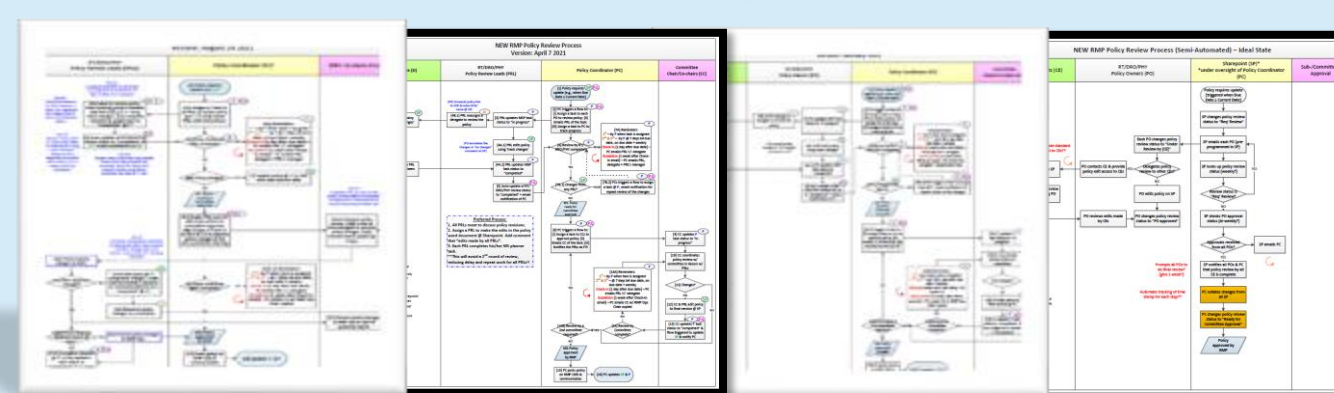
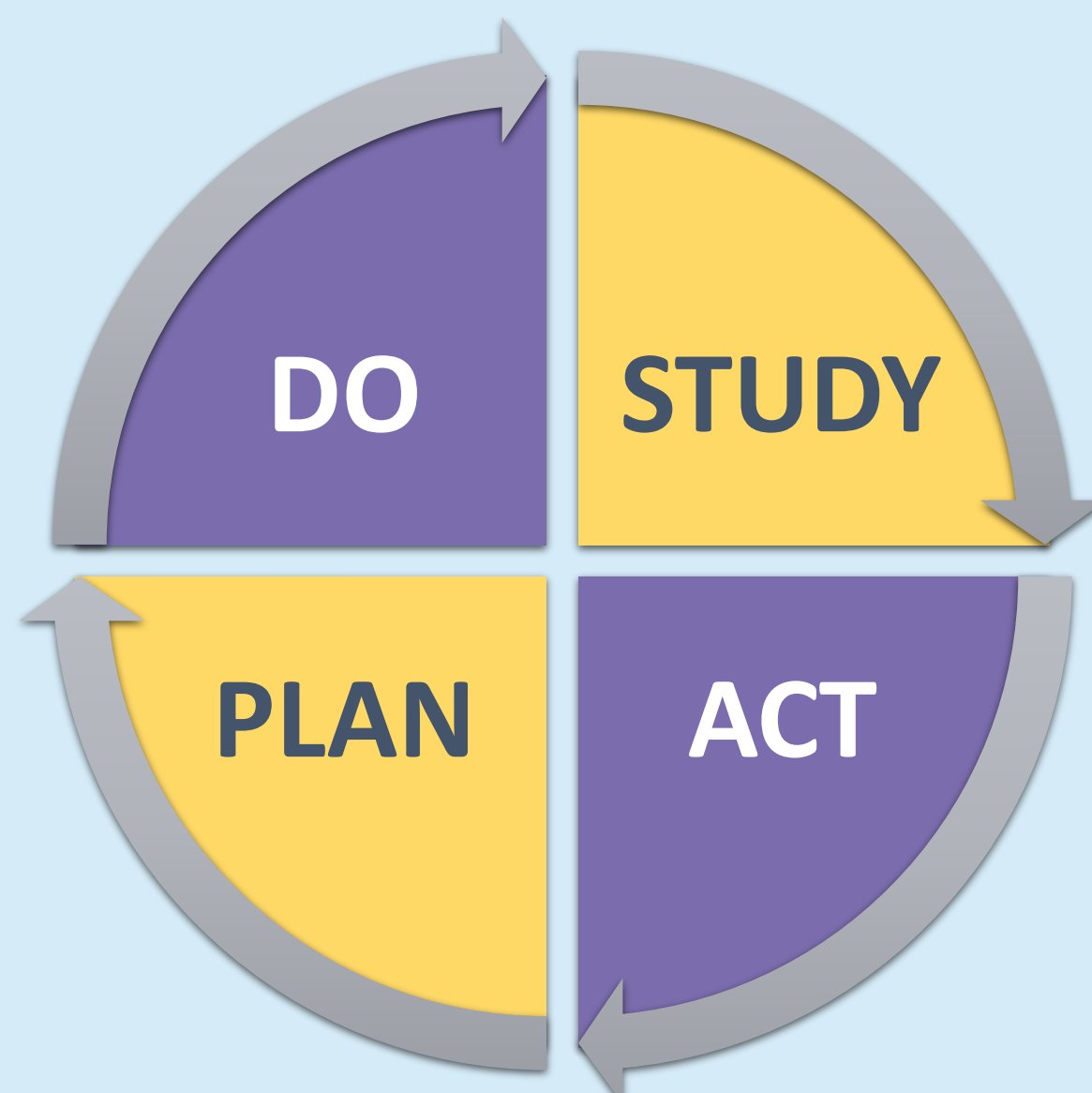
Figure 1. Mapping of old policy review process ('red arrows' indicating manual follow-ups required in the process)



STAKEHOLDER
CONSULTATION



LEAN IMPROVEMENT
PROCESS REVIEW



REITERATIVE PROCESS
TESTING & REVISIONS

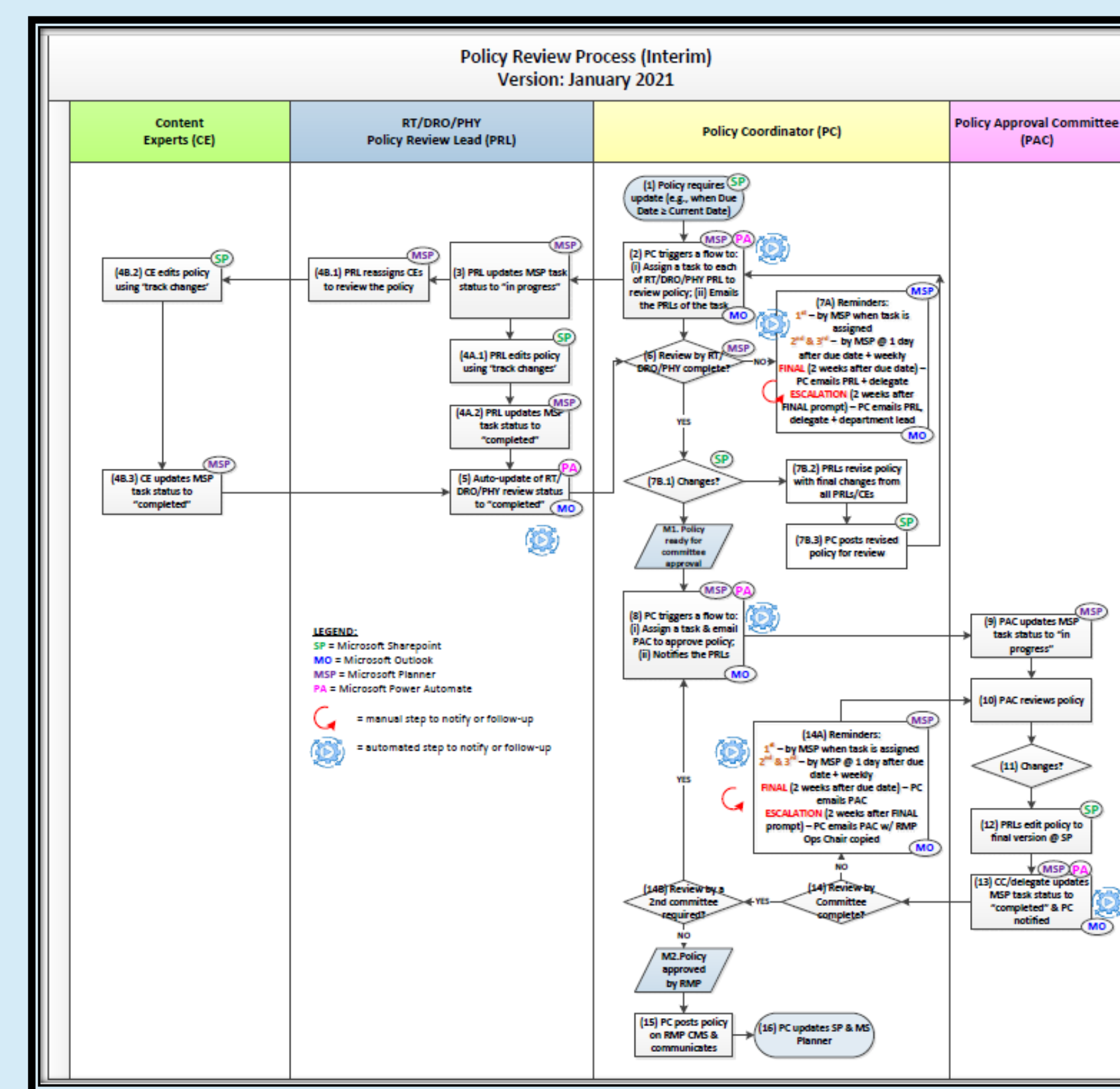


Figure 2. New policy review process used for pilot ('blue wheels' indicating automated steps introduced to the process, with 'red arrows' greatly reduced)

RESULTS

The average time required for policy review was longer in the old process for all steps compared to the new process (i.e., 56 vs. 54 days for Content Expert/CE review, 190 vs. 149 days for Committee review, 246 vs. 203 days overall). This suggests that the old process was less efficient than the new process. The average time on administrative activities required by the Policy Coordinator/PC was also longer in the old process compared to the new process (i.e., 44 vs. 5 mins per policy). This suggests that the old process involves a greater workload than the new process. According to the feedback from key stakeholders, the new process seems more streamlined. However, some workload of the PC may have shifted to other members in the review process.

	Content Expert Review (days)	Committee Review (days)	Total Review Time (days)	Emails Generated	Time per Email (mins)	Comments in Online Document	Time per Comment (mins)	Coordinator Time (mins)
OLD Process								
Policy 1	75	20	95	11	5	n/a	n/a	55
Policy 2	75	230	305	10	5	n/a	n/a	50
Policy 3	26		26	7	5	n/a	n/a	35
Policy 4	75	320	395	10	5	n/a	n/a	50
Policy 5	27		27	6	5	n/a	n/a	30
Average	55.6	190	245.6					44
NEW Process								
Policy 1	47	483	530	4	0.5	3	1	5
Policy 2	28	17	45	4	0.5	3	1	5
Policy 3	20	179	199	4	0.5	3	1	5
Policy 4	13	28	41	4	0.5	3	1	5
Policy 5	162	38	200	4	0.5	3	1	5
Average	54	149	203					5

Table 1. Time comparison as an indicator of process efficiency and workload measures for the old- vs. new- policy review processes.

CONCLUSIONS

This pilot study demonstrated the value of utilizing improvement science tools in designing a new policy review process that has resulted in improved efficiency and reduced workload. A larger sample size is required to confirm statistical significance and generalizability of these results. The average end-to-end review time for each policy, however, remains high (i.e., >1 month) which suggests there are barriers in the process that have not been improved by improvement tools used in this study. Moreover, a more thorough assessment of the workload for members, other than the PC, involved in the policy review process should be performed to understand impact of this process change; which could be a critical factor affecting long-term sustainability of changes implemented.

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