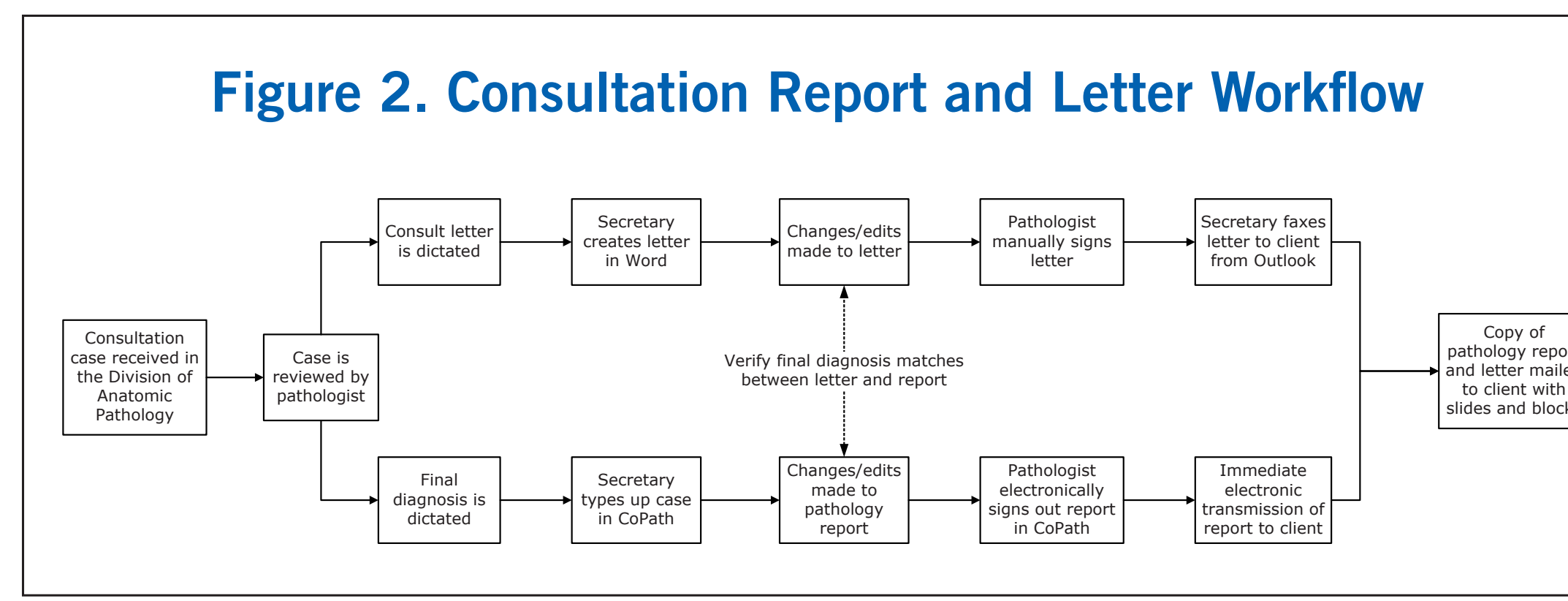


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Results (continued)

The practice change was first piloted with a limited number of AP consultants and clients. Data was collected prior to the pilot and then again at its conclusion. The results were reviewed and the pilot was found to be very successful. As a result, the practice change was rolled out to the entire AP consultant practice, and was subsequently adopted by the Hematology and Dermatology pathology consultation practices as well.

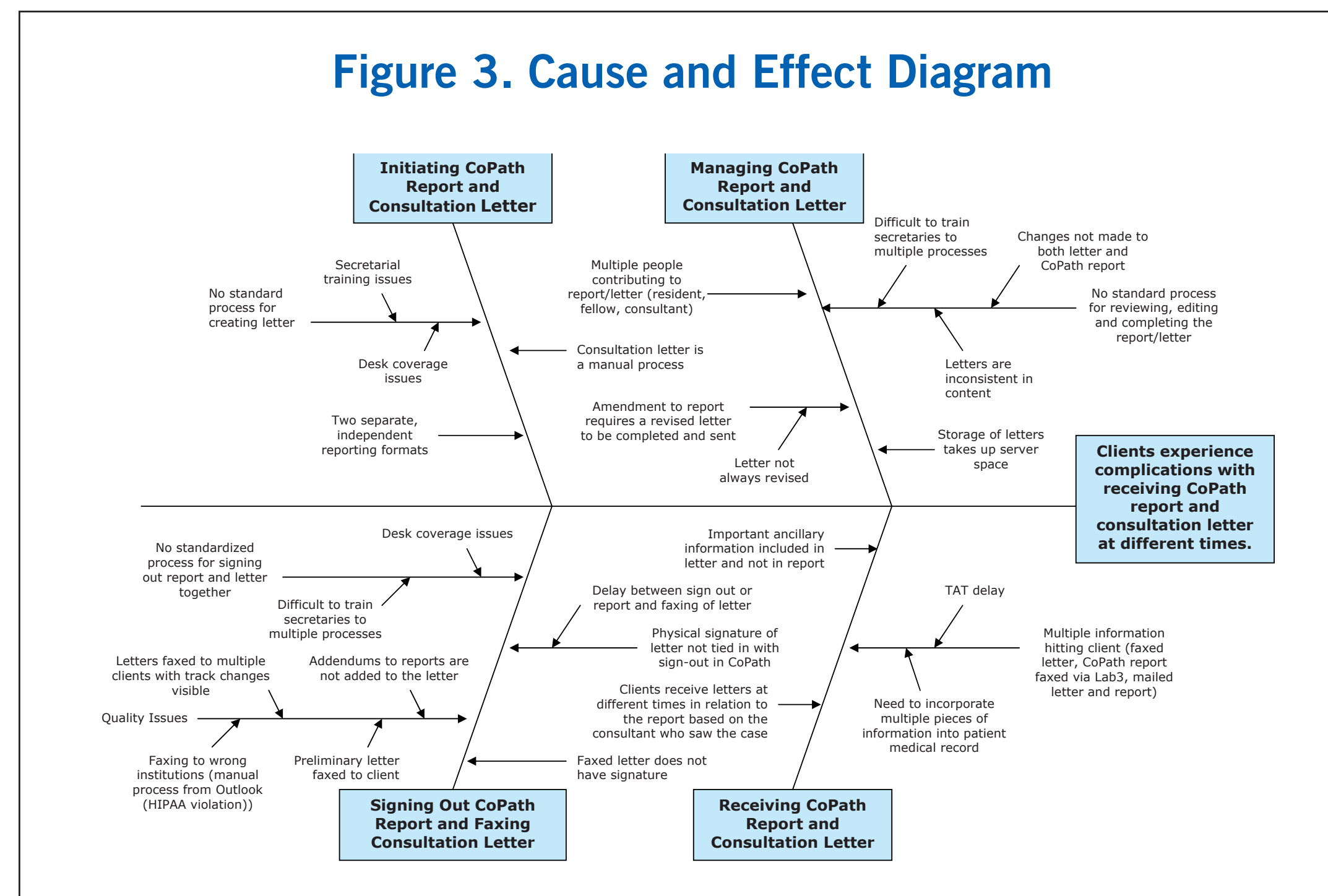
However, over the past several years it had become evident that the process of managing two separate reporting methods in a large pathology practice created many complications (Figure 2). Various issues that existed with the process included training issues for medical secretaries, quality issues related to diagnosis information matching between the pathology report and letter, delay between the time the report was signed out and the letter was faxed to the client, and customer dissatisfaction and complaints related to turn around time.



Materials and Methods

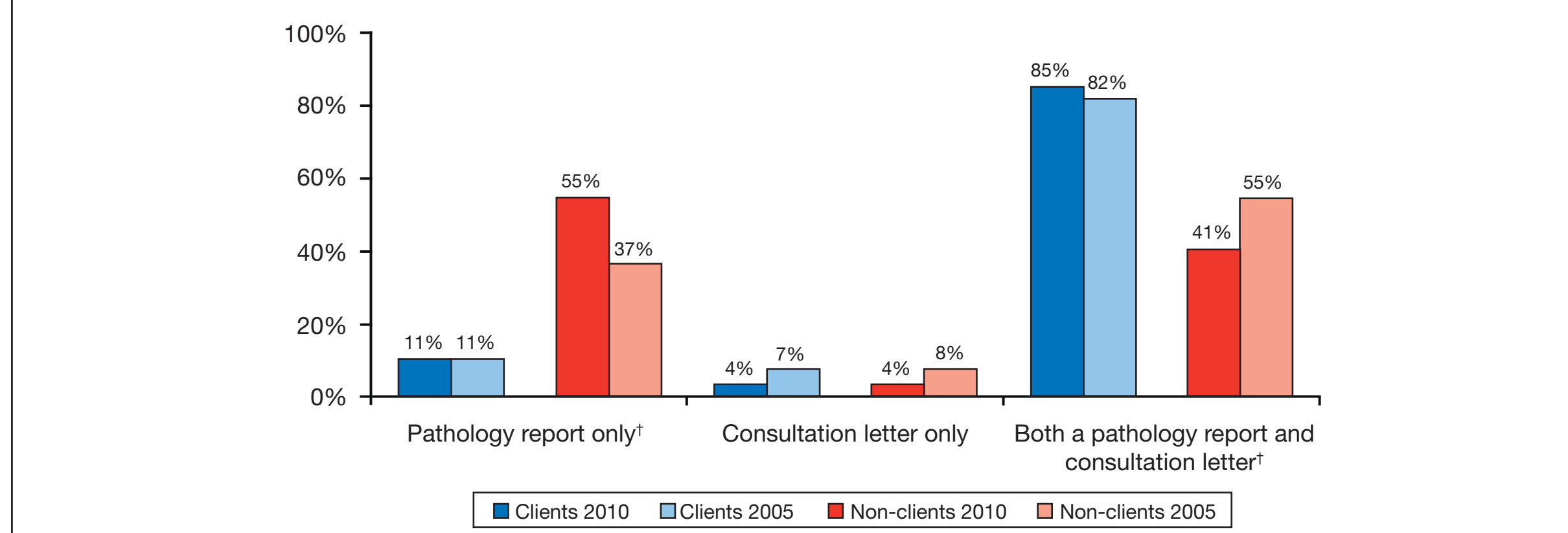
In response to an increasing number of customer complaints as well as additional internal issues, a team began reviewing the current consultation report and letter process in early 2011. The team began by creating a process classification type cause and effect fishbone diagram to illustrate all of the issues that were identified (Figure 3).

The team initially attempted to standardize portions of the process through minor improvements with mixed success. The team ultimately identified the future state required to minimize process issues: Incorporate the information that was once housed within the consult letter into the pathology report. The team also identified the keys to implementation of this future state: 1) get buy-in from divisional leadership to change a practice that had been an integral part of the consult practice for nearly forty years, and 2) go about the practice change so that clients were well-informed and comfortable with the change.



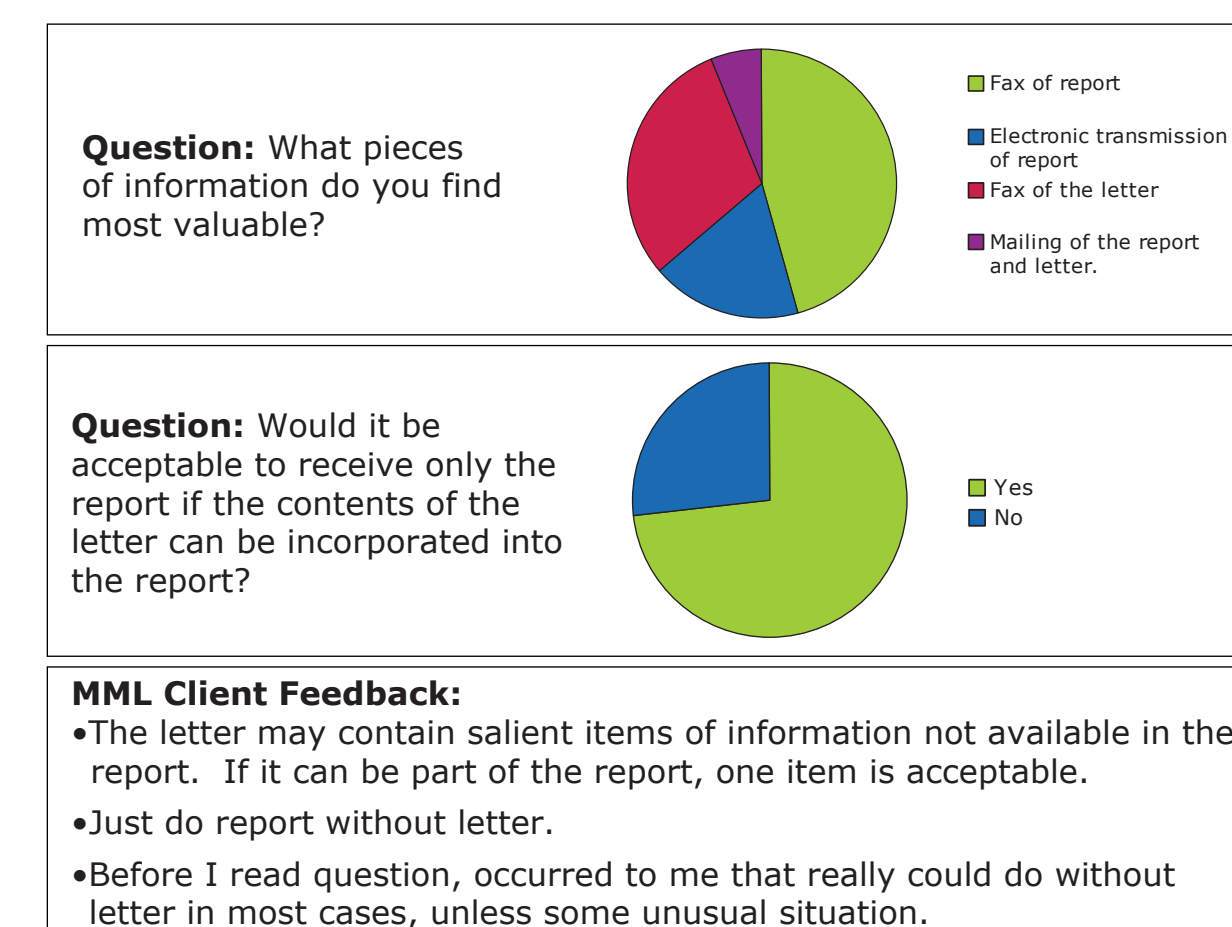
The team received preliminary approval from AP leadership to move forward with the practice change on the condition that clients were contacted to get an impression of what their reaction would be to the change. The team learned that every five years Mayo Medical Laboratories (MML) Client Services conducts a survey of pathologists to assess their satisfaction with surgical consultation services and identify current needs and preferences of pathologists. The surveys are sent to both pathologists that currently send in consult cases (clients) and those that do not (non-clients). The team reviewed the most recent survey and identified one relevant question pertaining to surgical pathology reports. The question asked survey participants what types of reports they received for surgical pathology consultations: pathology report only, consultation letter only, or both a pathology report and consultation letter. Most clients stated that they received both a pathology report and a consultation letter. Interestingly, less than half of non-clients said they received both a report and letter; and this seems to be an increasing trend, with 55% of non clients receiving both a pathology report and a consultation letter in 2005, but only 41% in 2010 (Figure 4). It was also noted in the survey that both clients and non-clients expect their reports to include a diagnosis, results of ancillary studies, and a discussion of the pathology evaluation. Additionally, an increasing number of clients and non-clients expect reports to include a discussion of clinical implications and references of literature.

Figure 4. Types of Reports Received for Surgical Pathology Consultations



In order to find out how current clients would feel if the letter was discontinued and the ancillary information incorporated into the pathology report, the team created a special survey that involved specific questions about the consult letter practice. With the help of MML Client Services, the survey was sent out to a representative number of current pathology consult clients. The survey findings were presented to AP leadership, who gave the final approval for the team to move forward with planning the practice change (Figure 5).

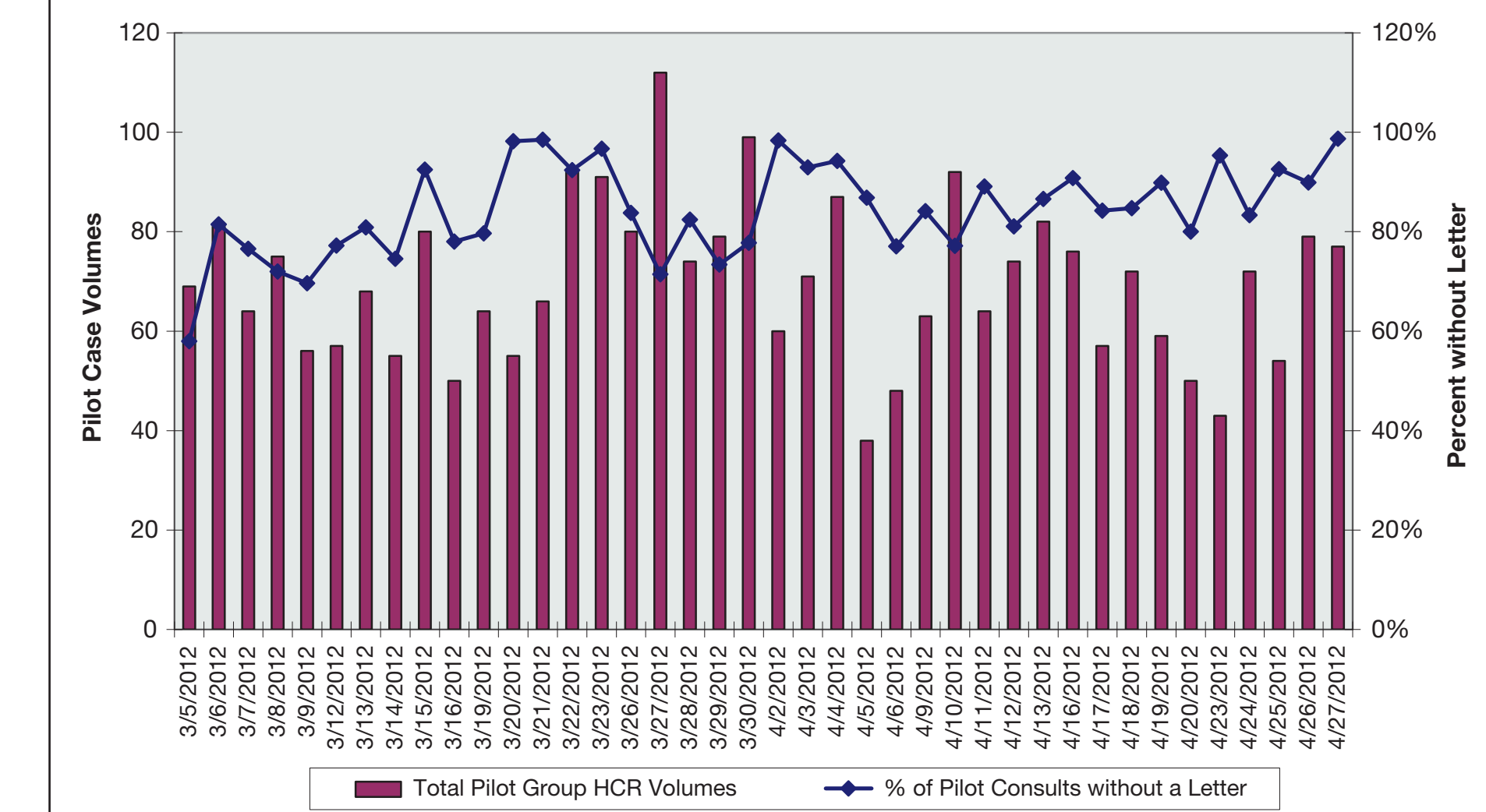
Figure 5. Survey Findings



The team worked diligently throughout the remainder of 2011 and into early 2012 creating a plan for how the practice change would be implemented. In March of 2012, the first phase of the practice change was implemented with the start of a pilot.

The integrated consult letter pilot was conducted from March 5, 2012 through April 27, 2012. The pilot consisted of 27 pathologists, including 21 AP pathologists and 6 pathologists from the Division of Hematopathology. Throughout the eight week pilot, data was collected to monitor how many consult cases (HCR designation) were reviewed by the pilot pathologists and what percentage of those cases that had an integrated report (Figure 6).

Figure 6. Integrated Pathology Report Pilot Data



A work load effort study was conducted for a representative group of medical secretaries to illustrate the amount of work spent managing and completing consult cases. Prior to the start of the pilot, it was found that on average medical secretaries spent 16:42 minutes per consultation case. Timings were conducted with the same group of secretaries toward the conclusion of the pilot and it was found that they were now spending an average of 9:59 minutes per case. When it is taken into consideration that AP medical secretaries handle approximately 165 consult cases a day, with the elimination of the letter that computes to a savings of 2 medical secretary full time equivalents (FTE) (Figure 7).

Figure 7. Medical Secretary Work Load Effort

	Pre-pilot time per case (minutes)	Post-pilot time per case (minutes)	Workload reduction
Secretarial workload data for management of consultation cases	16:42	9:59	-39%

The turn around time for clients to receive all the information they need related to the case was also tracked. In the previous practice, the client received two different pieces of information, the report and the letter, that arrived at different times. It was found that 50% of the time the letter was faxed to the client at least one day after the pathology report had been signed out and electronically transmitted. Clients frequently complained about the timing of delivery for the two report deliverables. The elimination of the letter meant that a single report was delivered and the turnaround time for half of the consult cases improved by at least a day.

During the pilot, the participating pathologists remained in close contact with the clients that would be receiving their pathology reports. As a result, the team was able to collect a lot of good feedback from clients as well as the participating pathologists and medical secretaries (Figure 8).

Figure 8. Integrated Pathology Report Pilot Feedback

MML Clients

- Love it. We never do anything with the report until we get the letter which could be for days. This is so much better.
- Absolutely do this. Better on our end. We get “trickles of paper”. No one knows what to do with them.
- This is a great improvement.
- This is beautiful; prefer it over the letter.

Mayo Pathologists


- From my point of view, this really streamlines reporting. I love it.
- I have only heard positive comments from the clients.
- I think the pilot has been well received by clients and has improved workflow.
- Loved this! So much more efficient from a consultant standpoint. I can easily make my own edits. No more back and forth between the secretary and trainee.

Mayo Secretaries

- I love not having a letter and putting comments into the Diagnosis Comment field. Speeds up the process.
- I believe I can speak for all the secretaries by saying it has simplified our processes, and has had a large impact on improving turn around time.
- The pilot cut down dramatically on errors.

With all of the positive results of the pilot, AP leadership made the decision to expand the new process to the entire AP practice. The consultants participating in the pilot were allowed to continue the new process while the rest of the practice was educated on the changes. On July 9, 2012 the entire AP consult practice made the change to the new integrated pathology report and discontinued generating the letter (Figure 9).

Figure 9. New Integrated Pathology Report

				I hereby certify that the data and information shown above is/are true. The foregoing laboratory test results are provided for the use of the Mayo Clinic and may not be subject to copyright. I have authorized the use of this information for research and/or statistical analysis.	
Patient's Name _____ Date of Patient's Birth _____ Date of Specimen Collection _____ Referring Physician _____ Facility Ref No. 1590		Patient's Name _____ Date of Patient's Birth _____ Date of Specimen Collection _____ Referring Physician _____ Facility Ref No. 1590		I have been informed of potential risks to my health (e.g., drugs, X-ray, Test, etc.) and I understand the risks and benefits of the proposed laboratory test. I have given my informed consent to the proposed laboratory test.	
Date of Test _____ Time of Test _____ Test Results _____ Referring Physician _____ Facility Ref No. 1590		Date of Test _____ Time of Test _____ Test Results _____ Referring Physician _____ Facility Ref No. 1590		Date of Test _____ Time of Test _____ Test Results _____ Referring Physician _____ Facility Ref No. 1590	

Conclusion

A thorough review of the consult report and letter process in AP found that many complications and issues existed with trying to manage two separate reporting methods in a large pathology practice. In response to this problem, the AP Standardization Team examined the process including all of the problems involved, and came up with a plan that improved the process by implementing an integrated pathology report and discontinuing the consult letter. The team worked closely with AP leadership and MML client services to contact clients and obtain their input on the topic as well. A pilot was conducted with a limited number of AP pathologists and MML clients to see how the process worked and how all affected parties liked the new process. Work load effort timings for AP medical secretaries found that the amount of time spent managing and completing consult cases was reduced by 39%. Clients perceived a better turn around time for consult cases since all of the information they needed was now included in the report, instead of waiting for a day or more to receive the letter. Following implementation of the process change for the whole AP practice, the integrated pathology report has been met with positive results from both inside the AP division and by MML clients. Subsequently, the process has been adopted by the Hematology and Dermatology pathology consultation practices as well.