Introduction: Nationally, there is wide variability in the availability and the utilization of Anesthesia Assistants (AAs) by departments of anesthesiology. The purpose of this study was to assess the current number of AAs, their utilization, and their impact on the specialty of Anesthesiology in Canada.

Methods: An email list for Canadian Department Heads of Anesthesiology and funding was obtained from the Canadian Anesthesiologists’ Society. After ethics approval, two iterations of an online survey were sent in December 2010. Frequencies and percents were calculated. Statistical significance was assessed with the chi square statistic. Level of significance was set at p<.05.

Results: A total of 274 surveys were sent. This analysis is based on respondents (31%) representing departments providing care at 115 different sites. Forty-three percent of departments routinely use AAs. There were significantly more AAs (78%, p<.01) in Quebec than the rest of Canada. AAs were utilized almost equally between academic (53%) and community (47%) departments. All institutions that employed AAs were in an urban setting (population > 10,000). Fifty-nine percent of departments have employed AAs for over 10 years. In all institutions, AAs assist with technical support. Seventy-eight percent of the departments allow AAs to monitor patients under General Anesthesia (GA). This is all performed under a 1:1 ratio of staff anesthesiologist to AA. Of those that permit it, 80% have medical directives for the AAs. Seventy-two percent of departments allow AAs to monitor patients under Regional Anesthesia (RA). A few departments permit a ratio of 2:1 between anesthesiologist and AA. Eighty-seven percent of institutions allowing AAs to monitor RAs have a medical directive. Fifty-nine percent of departments allow AAs to monitor patients under Monitored Anesthetic Care. Most have a ratio of 1:1 while one department reports a ratio of 3:1. Ninety percent of departments allowing AAs to monitor patients under MAC have medical directives. Over 93% of respondents agree that AAs improve efficiency, productivity, patient safety and job satisfaction. All respondents agree that AAs are an important part of the workplace team. In Ontario, few departments reported a reduction (n = 6 Full Time Equivalents) in requirements for Anesthesiologists with the introduction of AAs.

Discussion: This was the first national study to describe the role of AAs on departments of anesthesiology. The results indicate that Quebec utilizes the most AAs. Interestingly, AAs are more likely to monitor patients under GA followed by RA and then MAC. Overall, respondents agreed that AAs improved the work environment for anesthesiologists. The introduction of AAs has lead to a small reduction in Anesthesiologist requirements in Ontario.