

**Appendix A: Column Definitions for Quartiles and Standard Deviation**

1. "# Q-Spread" is the number of quartile spreads away from the 3rd quartile (Q3).
2. The Quartile Spread is the difference between the third quartile value and the first quartile value. By using the Q1 and Q3 values, the quartile spread is dependent on the middle observations and removes the influence of the most extreme observations of the data set. (By definition Q3 and Q1 are the upper and lower bounds of the middle 50% of the data.)
3. Flag refers to #QSpread and indicates either an Outlier or Extreme Outlier. An Outlier is any value lying more than 1.5 times the spread above the 3rd quartile. An Extreme Outlier is any value lying more than 3 times the spread above the 3rd quartile.
4. Group Average is the arithmetic mean, but only "qualified" practitioners are included.
5. A Qualified Practitioner is one whose earnings is at or above 40th percentile earnings and, except for a few groups, has performed services in at least 9 distinct months of the year.
6. "# Std Dev" is the number of standard deviations from the group average.
7. A dash in the #Std Dev column means the number would not be meaningful in the context of flagging outliers.

## EXPLANATORYNOTES

### **FIGURE 1: Key Measures**

This table describes your practice size and the costs incurred for services rendered in that year. For each item in the table, a comparison is made between your individual practice and your comparison group median, in both graphical and numerical representation. The section provides an overview of your standings and points out those measures that are higher than the median. Measures that are more than 1.5 Q-Spreads (see Figure 1 below) above the third quartile are “flagged”. A flag is a statistical indicator and not a conclusion about the appropriateness of practice.

### **FIGURE 2: History**

This chart displays graphically and numerically the main aspects of your practice on a time line over the last five years. The graph includes a thick line indicating your statistics and a thin line showing your comparison group median.

### **FIGURE 3: Personal Services (per 100 total patients)**

This table breaks down your practice into Service Codes (groups of related fee items), including group and grand totals. All services billed to the Plan under your personal MSP practitioner number are included. The heading “comparison to group” indicate your statistics in comparison to the group median.

### **FIGURE 4: Referred Out Services (per 100 total patients)**

This table reflects all specialist consultation referrals attributed to your practitioner number. The “comparison to group” indicate your statistics in comparison to the group median.

### **FIGURE 5: MSP Payments Distribution of Comparison Group**

This graph displays the range of MSP payments for all doctors in your comparison group. The thin, vertical line indicates your MSP payments in comparison to your group.

### **FIGURE 6: Demographic Breakdown of Personal Patients**

This chart provides a breakdown of your practice size by gender and age. The median percent of patients in each age/gender group for practitioners in your comparison group.

### **FIGURE 7: Demographic Breakdown of Personal Services**

This chart provides a breakdown of your personal services by gender and age. The median percent of services rendered to patients in each age/gender group by practitioners in your comparison group.

### **FIGURE 8: Demographic Breakdown of Personal Cost per Patient**

This chart provides a breakdown of the median cost per patient by gender and age. The medianpercent of overall costs in each age/gender group for other practices in your comparison group.

## **GLOSSARY OF TERMS**

### **ACG (Adjusted Clinical Group)**

The Adjusted Clinical Group case-mix system incorporates both patient diagnosis and age and gender to characterize patient morbidity and calculate the mean costs for patients in the ACG. The mean costs of all patients in BC who are matched for these criteria are then used as the estimator of the expected medical costs for your patients in the ACG. For further information on adjusted clinical group (ACG), please refer to the following sources: "Hold it- my patients are sicker!" in *Doctors of BC Medical Journal* July-August 2001 (on *Doctors of BC* website); "Adjusted Clinical Groups" in *MSP newsletter* Summer 2001 (on *MSP* website) and ACG homepage at Johns Hopkins School of Public Health [www.acg.jhsph.edu](http://www.acg.jhsph.edu).

### **Case-Mix Adjustment**

Case-mix adjustment is used to estimate expected costs based on the severity, number and complexity of diagnoses faced by the patients who comprise your practice population. Case-mix adjusted profiles provide a more realistic picture of a physician's practice (i.e., compared to using age and gender, which have been shown to be relatively poor predictors of individual need for health care services), and allow physicians to more fairly compare their resource-use to that of their peers.

### **Co-Morbidity Ratio**

The Co-Morbidity Ratio shows the mean of the physician's patients' ACG expected costs (for patients in an EDC) compared to the average ACG expected costs of all patients in the same EDC category who attended a physician in the same type of practice (TOP) peer group as the subject practitioner.

Higher values indicate that the physician's patients, on average, fall into more expensive (implying higher co-morbidity) ACG groupings than the average patients matched for the respective single disease expanded diagnostic cluster (EDC) category. For example, a value of 125% for an Internist's diabetic patients' means that, for his/her total diabetic patients, the ACG expected cost is 25% higher than for the average diabetic patient who attended an Internist in BC.

### **EDC (Expanded Diagnostic Clusters)**

Identifies and groups persons with specific diseases or symptoms. The EDC methodology assigns ICD-9 codes found in claims submissions to one of the Expanded Diagnosis Clusters. Each of the ICD-9 diagnostic codes links to one EDC (for example, there are 56 ICD-9 codes that practitioners can record as a diagnosis for otitis media. The EDC for otitis media combines these codes into a single category). All the diagnoses for each patient are captured whether you or another physician submitted the claim record with the respective diagnostic code.

### **Flags**

A practitioner's profile compares practice-specific data with group average data for the peer group. These comparisons show if the practitioner's pattern of practice is within statistical norms for his/her peer group or outside of these norms. If the practitioner is outside of the norms for his/her peer group with respect to some aspect of service provision or billing, a relative measure of how far from the peer group norm is made. These relative measures are referred to as flags. The flags use standard deviations, quartile spreads, or percentile ranking of the practitioner's statistics to measure the variation from the peer group (See

## GLOSSARY OF TERMS

Figure 1.0 under Definitions of Statistical Measures). Flags are a statistical indicator and nota conclusion about the appropriateness of practice.

### Total MSP Payments (after adjustments)

Adjustments refer to Daily Relative Value Limits (also known as HVLIP's) for GP's, and to the Rural Retention Program (RRP)".

### TOP (Type of Practice)

Type of practice is determined by the type of fee items billed. For example, if the majority of earnings of a practitioner are derived from fees for orthopedic procedures, the practitioner is deemed to be in the orthopedic TOP regardless of the specialty of record. In other words, TOP correlates with "functional specialty" as opposed to "specialty of record".

### Whole Patient Summary (GP's only)

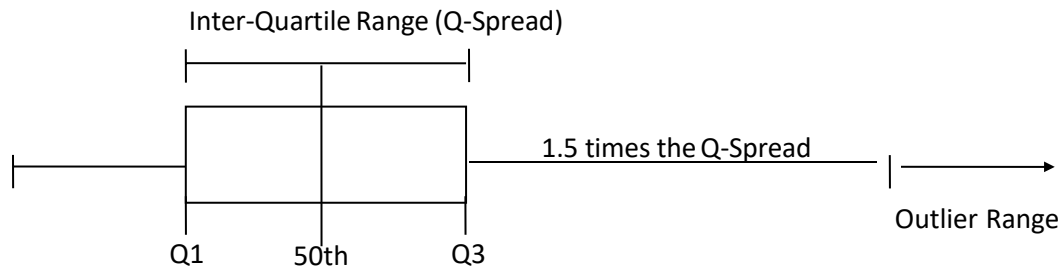
Patients are "shared" among multiple physicians. This section includes your services in the context of all services received by your patients. The total number of distinct patients in Figure 9 includes only those who received a GP service (i.e., a fee item in service codes 1-19). Therefore, this number may be less than the total personal patients reported in Figure 1: Figure 1 includes patients that may have had no GP service, but have had one or more other services (e.g., minor procedures, prenatal or delivery, tray fees, etc.).

### DEFINITIONS OF STATISTICAL MEASURES (see Figure 1.0 below)

Median (50th % Percentile)	The mid-point of a set of data. When a list of numbers is arranged in order with the largest number at the top and the smallest at the bottom, the median is the value such that one half of the numbers in the list lie above it and one half lie below it.
First Quartile (Q1) (25th Percentile)	The value such that one fourth of the numbers in the list lie below it (i.e., one fourth of the numbers with the smallest values lie below it).
Third Quartile (Q3) (75th Percentile)	The value such that three fourths of the numbers in the list lie below it.
Q-Spread (QS)	The value of the third quartile minus the value of the first quartile. Also known as the "inter-quartile range".
Outlier	Any value laying more than 1.5 times the Q-Spread above the third quartile.
Extreme Outlier	Any value laying more than 3.0 times the Q-Spread above the third quartile.

## GLOSSARY OF TERMS

FIGURE 1.0



Note: 50% of the data are in the boxes

## FREQUENTLY ASKED QUESTIONS (FAQ's)

Q: **What is “# of Personal Patients”?**

A: This is the total number of distinct patients seen in your practice. Each of these patients received at least one service from you in that year.

Q: **What is “Personal Services”?**

A: This is the total number of services provided by you to all of your patients.

Q: **What is “Cost of Services Paid for by ICBC”?**

A: This is the cost for services billed to MSP that were identified on the claims as MVA-related, and for which payment responsibility was accepted by ICBC.

Q: **What is “Cost Referred Out”?**

A: This is the cost for services provided by other physicians to patients who, according to the claim record, were referred by you.

Q: **What is the difference between the 2-digit and 5-digit codes used in Figure 3 and Figure 4?**

A: The 2-digit codes are SERVICE CODES comprising a group of related fee items (e.g., 22 is the service code for consultations). The 5-digit codes are for the specific FEE ITEMS that fall under a given service code. The sum of the values at the fee item level may not add up to the service code total and similarly, the sum of values at the service code level may not add up to the practice total, as measures with very small values are not included in the summary statistics.