



January 29, 2014

Ms. Margo Wright, Director
Home Services Division & Chief Financial Officer
Global Healthcare Group, LLC
2151 Linglestown Road, Suite 180
Harrisburg, Pennsylvania 17110

Dear Ms. Wright:

Enclosed for your review is the final audit report of Global Healthcare Group, LLC, which was recently completed by this office.

Your agency's response has been incorporated into the final report and is labeled Appendix B.

The final report will be forwarded to the Department's Office of Long Term Living to begin the Department's audit resolution process concerning the report contents. The staff from the Office of Long Term Living may be in contact with you to follow up on the corrective actions taken to comply with the report's recommendations.

I would like to extend my appreciation for the courtesy and cooperation extended to my staff during the course of the fieldwork.

Please contact David Bryan, Audit Resolution section at (717) 783-7217 if you have any questions concerning this audit or if we can be of any further assistance.

Sincerely,

A handwritten signature in black ink that reads "Tina L Long". The signature is written in a cursive, flowing style.

Tina L. Long, CPA
Director

Enclosure

c: Ms. Karen Deklinski
Ms. Bonnie Rose
Mr. Michael Hale
Ms. J. Diane BrannonNordtomme

bc: Mr. Alexander Matolyak
Mr. David Bryan
Mr. Michael A. Sprow
Ms. Shelly Lawrence
CFO Audit File (C3000)

Some information has been redacted from this audit report. The redaction is indicated by magic marker highlight. If you want to request an unredacted copy of this audit report, you should submit a written Right to Know Law (RTKL) request to DPW's RTKL Office. The request should identify the audit report and ask for an unredacted copy. The RTKL Office will consider your request and respond in accordance with the RTKL (65 P.S. §§ 67.101 et seq.) The DPW RTKL Office can be contacted by email at: ra-dpwtkl@pa.gov.

January 29, 2014

Mr. Brendan Harris, Executive Deputy Secretary
Department of Public Welfare
Health & Welfare Building Room 334
Harrisburg, Pennsylvania 17120

Dear Deputy Secretary Harris:

The Bureau of Financial Operations (BFO) conducted an audit of Global Healthcare Group, LLC (Global) at the request of the Office of Long Term Living (OLTL). The audit was designed to investigate, analyze and make recommendations regarding the reimbursements from the Provider Reimbursement and Operations Management Information System (PROMISe) for client care. Our audit covered the period from July 1, 2012 through June 30, 2013 (Audit Period).

The report is currently in the final form and contains Global's views on the reported findings and recommendations. The reported findings and recommendations were discussed with Global's management at a closing conference held on September 16, 2013. Global provided a response to the draft report which is included as Appendix B. Global did not request an exit conference.

Executive Summary

FINDINGS	SUMMARY
<p>Issue No. 1 – Global Did not Have the Proper Documentation to Support the Number of Units of Service Billed in PROMISe.</p>	<p>Time records (telephony entries and manual timesheets) did not support the services performed and/or the number of units billed in PROMISe for the Audit Period. There were 15,248 units questioned from the 61,519 units in the sample population, which results in an error rate of 24.8%.</p>
HIGHLIGHTS OF RECOMMENDATIONS	
<p>Global should:</p> <ul style="list-style-type: none"> • Implement additional reviews to ensure the required logins, logouts and task data are present for each date of service in the telephony system before being used for billing. The same reviews should also apply to all manual timesheets submitted. <p>OLTL should:</p> <ul style="list-style-type: none"> • Recover \$679,839 for unsupported claims for the Audit Period. 	

Global Healthcare Group, LLC
July 1, 2012 through June 30, 2013

FINDINGS	SUMMARY
<p>Issue No. 2 – For Certain Claims, Global Billed PROMISe at an Incorrect Rate.</p>	<p>Our analysis revealed mathematical and clerical errors in the documentation. It was determined that 11 claims were under paid due to the errors. The total underpayment was \$812.66.</p>
HIGHLIGHTS OF RECOMMENDATIONS	
<p>Global should:</p> <ul style="list-style-type: none"> • Implement additional controls including a supervisory review and approval of the invoices generated to ensure their accuracy prior to being billed in PROMISe. • Return to the format they used for invoices in 2012 where the date of service, type of service, worker and times are identified. This would provide the information needed to reconcile to the source data in the telephony software and/or manual timesheets during the supervisory review. <p>OLTL should:</p> <ul style="list-style-type: none"> • Adjust the applicable claims for the \$812.66 that was under-billed. Global cannot rebill since all the claims exceed the 180 day adjustment period allowed by PROMISe. 	

See Appendix A for the Background; Objective, Scope and Methodology; and Conclusion on the Objective

Results of Fieldwork

Finding No. 1 – Global Did Not Have the Proper Documentation to Support the Number of Units of Service Billed in PROMISe.

Four statistically valid random samples (SVRS) were generated from the listing of paid PROMISe claims. Three were stratified based on the number of units permitted in PROMISe and one sample was drawn from the amended claims filed. A total of 336 claims were sampled. A total of 15,252 units of the 61,519 units in the sample population were questioned, resulting in an error rate of 24.8%. These resulted from units being over billed, units being under billed, missing timesheets or entries in the telephony system, and lack of documentation for the services that were performed. Extrapolation of the error rate over the \$2,741,287 paid to Global through PROMISe for the Audit Period results in questioned costs of \$679,839.

Recommendation

The BFO recommends that Global review the telephony logins and logouts and ensure the times and services performed are shown in the PATTI (telephony software) reports. If possible, edit checks should be added to the software to identify missing logins, logouts and services. When missing information is found, the worker should be required to complete a PATTI Correction Form or manual timesheet. This would be retained in the client’s file as supporting documentation for the missing data. Any manual timesheets should be reviewed when

Global Healthcare Group, LLC
July 1, 2012 through June 30, 2013

Recommendation - Continued

submitted for completeness and returned to the worker to correct any missing information before accepting the document and entering the information into QuickBooks for invoicing and payroll. A worker's schedule should not be used as the source document for invoicing and billing PROMISE.

The BFO also recommends that the OLTL recover the \$679,839 of questioned costs.

Finding No. 2 – For Certain Claims, Global Billed PROMISE at an Incorrect Rate.

Mathematical and clerical errors were made when calculating the number of units to be billed and the amount due to Global. The BFO recalculated all paid claims for the Audit Period to determine which claims may have been paid incorrectly. The BFO identified 35 claims as being potentially under paid. Those claims were compared to Global's time records, invoices and PROMISE billings to determine the reason for the discrepancy. Eleven of those claims were indeed under paid and totaled \$812.66.

Recommendation

The BFO recommends that Global implement additional controls including a supervisory review and approval of the invoices generated to ensure their accuracy prior to being billed in PROMISE. The BFO also recommends that Global return to the format they used for invoices in 2012 where the date of service, type of service, worker and times were identified. This would provide the information needed to reconcile to the source data (PATTI or manual timesheets) during the supervisory review.

The BFO also recommends that OLTL adjust the applicable claims for the \$812.66 that was under-billed. Global cannot rebill since all the claims exceed the 180 day adjustment period allowed by PROMISE.

Auditor's Commentary

Global, via its attorney, alleges that the sampling methodology used by DAR is inappropriate. The BFO used federally approved sampling software to extract samples for the audit. The process was discussed extensively with Global's management during the course of the audit as well as at the closing conference.

Global also alleges that the regulations and record keeping requirements are vague citing 55 Pa code Section 52.43. There are regulations and guidelines that are the minimum requirements to be met for proper documentation of paid claims. 55 Pa code Section 52.15 (Provider records) is quite clear on the requirements for record keeping. In addition it is a requirement that such records must meet Federal and State standards. At a minimum, such documentation must support the type of service rendered and the frequency and duration of service provided consistent with the recipient's needs as stated in the Individual Support Plan. The questioned costs in this audit are the result of unsupported or unverifiable paid claims.

Global Healthcare Group, LLC
July 1, 2012 through June 30, 2013

Auditor's Commentary - Continued

55 Pa code Section 52.64 (Payment Sanctions) is also clear on the sanctions for payments that the provider cannot verify as being provided in the amount, duration and frequency billed.

Finally, Global is asking the BFO to accept affidavits from its employees and consumers as support for paid claims that were previously unsupported and have resulted in questioned costs. Notwithstanding the question as to how employees and consumers can accurately recall the exact times that services were supposedly provided for units that occurred between 7 and 19 months ago, the affidavits were not in the files the BFO audited and constitute records that were created after the fact. The affidavits do not change the noncompliance with the regulations with respect to recordkeeping.

The BFO did not change the draft report as a result of Global 's response.

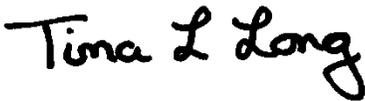
In accordance with our established procedures, an audit matrix will be provided to OLTL. Once received, OLTL staff should complete the matrix within 60 days and e-mail the file to the DPW audit resolution section at:

RA-pwauditresolution@pa.gov

The response to each recommendation should indicate OLTL's concurrence or non-concurrence, the corrective action to be taken, the OLTL staff responsible for the corrective action, the expected date that the corrective action will be completed and any related comments.

Please contact David Bryan, Audit Resolution section at (717) 783-7217 if you have any questions concerning this audit or if we can be of any further assistance.

Sincerely,



Tina L. Long, CPA
Director

GLOBAL HEALTHCARE GROUP, LLC

APPENDIX A

Appendix A

Background

Global Healthcare Group, LLC provides personal assistance services (PAS) for the Office of Long Term Living (OLTL) and the Department of Aging (Aging) throughout the central Pennsylvania area. Global had 134 active clients and received \$2,741,287 in PROMISE payments for PAS for the Audit Period. Global utilizes telephony computer software called PATTI to record the workers' time while at a client's residence, as well as to record the services that were performed. The software has separate reports for the time and services. When a worker arrives at a client's residence, they phone in and key in a 4 digit client and worker ID to identify their arrival time. Before the worker leaves, they make another phone call using the same codes which records their end time. The worker also keys-in 3 digit codes for the services performed. Each client and worker has their own unique 4 digit code as an identifier. The data from the telephony system is downloaded and reviewed daily. Some of Global's clients do not allow the workers to use their phones. In these cases, the workers manually complete timesheets to record the times and services performed.

Objective, Scope and Methodology

Our audit objective was:

- To verify the accuracy of the PROMISE claims paid for FY 2012-2013 and to ensure proper documentation was retained to support the claims billed in accordance with PA Code 55 Chapter 52 effective May 19, 2012.

In pursuing our objective, the BFO interviewed Global's management and staff. We also analyzed PROMISE reimbursement data, files from Global's telephony system, manually completed timesheets, client files, and other pertinent documentation necessary to pursue the audit objective.

We conducted this performance audit in accordance with generally accepted government auditing standards (GAGAS). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Government auditing standards require that we obtain an understanding of management controls that are relevant to the audit objective described above. The applicable controls were examined to the extent necessary to provide reasonable assurance of their effectiveness.

Based on our understanding of the controls, there were material deficiencies in billing procedures and in the completion of documentary evidence during the first half of the Audit Period. Global's owner recognized the problem and hired new senior management which instituted more stringent policies and procedures to correct the deficiencies. By the end of the Audit Period, it was evident the new controls were detecting and correcting the errors. Areas where the BFO noted an opportunity for improvement in management controls are addressed in the findings and recommendations of this report.

The BFO's fieldwork was conducted from August 20, 2013 to August 30, 2013 and was performed in accordance with GAGAS. The report, when presented in its final form, will be available for public inspection.

Conclusion on the Objective

In conclusion, Global did not always meet the requirements and program standards for documentation for reimbursement of claims that were billed through PROMISe for the Audit Period. The effect of this was an error rate of 24.8% in the claims analyzed resulting in questionable costs in the amount of \$679,839. In addition, the lack of reviews and approvals of the documentation for the PROMISe billings resulted in an underpayment of \$812.66 to Global.

**GLOBAL HEALTHCARE GROUP, LLC
RESPONSE TO THE DRAFT REPORT**

APPENDIX B

[REDACTED]

Reply to Harrisburg Office

FILE NO: [REDACTED]

January 6, 2014

Re: Global Empire, LLC – Draft Audit Report

Tina L. Long, CPA
Director - Office of Administration
Bureau of Financial Operations
Department of Public Welfare
402 Health and Welfare Building
Harrisburg PA 17120

Dear Ms. Long:

Thank you for this opportunity to respond to the draft audit report, which you sent to Global Empire, LLC (“Global”) on or about October 8, 2013. Global’s response follows.

- 1. The Draft Audit Is Based Upon Inappropriate Sampling Methodology, But We Lack Adequate Information To Determine The Extent Of The Methodological Errors.**

Global has retained a statistician to review the Draft Audit Report. The report of that statistician, [REDACTED] is attached hereto as Exhibit “A.”

That report raises specific questions regarding BFO’s methodology and results, including:

- 1) the failure to weigh the sampling groups;
- 2) the failure to identify a margin of error in the results; and
- 3) most notably, the failure to adequately sample May and June, as it is almost inconceivable that a random sample of a twelve month period would exclude one month entirely, and almost totally exclude another (May), resulting in biased findings.

[REDACTED] major criticism, however, relates to the lack of adequate information necessary to properly evaluate the audit. He lists the requisite missing information and notes that, under similar circumstances, federal regulations require disclosure of that information so that the subject of the audit can fully understand and evaluate the audit.

Appendix B
age 1 of 19

The information listed by [REDACTED] in his report is necessary to review the audit and the Audit Report and it must be provided before Global is required to respond finally to the audit. In any case, as is noted above, even without that information, it is clear that the audit is seriously flawed and cannot serve as a basis for recovery of payments from Global.

2. The Regulations And Bulletins Purporting To Give Notice Of The Recordkeeping Requirements Were Extraordinarily Vague And Should Not Be The Basis For The Penalty Suggested By BFO.

The primary error found in the BFO audit was a failure to record adequately the type of services provided. However, for most of the fiscal year at issue, the Office of Long Term Living provided little or no guidance as to what to record.

The relevant Regulation regarding record keeping is contained in 55 Pa. Code §52.43. Section 52.43 provides, in relevant part, that

- (h) A provider shall maintain books, records and documents that support:
 - (1) The type, scope, amount, duration and frequency of service provision.
 - (2) The dates of service provision.
 - (3) The fees and reimbursements earned in accordance with Federal and State requirements.
 - (4) Compliance with the terms and conditions of service provision as outlined in this chapter.

Only the first subsection refers to records of services provided. However, these regulations provide no guidance or elaboration as to what the terms “type” and “scope” of services mean.

Apparently recognizing that deficiency, the Office of Long Term Living issued a Bulletin attempting to clarify the meaning of those terms – a true and correct copy of that Bulletin is attached hereto as Exhibit “B.” However, that Bulletin was not issued until May 13, 2013, well into the audit period. There was no such “guidance” in existence earlier in the fiscal year when most of Global’s alleged errors took place.

In the absence of any meaningful guidance as to what information must be recorded, Global should not be penalized for its recordkeeping mistakes. The errors based on the alleged failure to record types of services provided should not result in recovery.

3. Global's Records Clearly Indicate That In Almost All Instances Global Employees Were On-site During the Time For Which Payments Were Made. BFO Should Permit Global To Produce Affidavits From Employees And Consumers Confirming That Fact And The Fact That Appropriate Services Were Supplied During Those Time Periods.

Global employees utilized a telephone-based system ("PATTI") for reporting the time that they arrived at a consumer's home, the time that they left and, in most cases, the types of services provided. In almost all instances, the PATTI documents reflect the personal care provider's time of arrival and time of departure. The system also reflects the phone number from which those times were entered and, in most instances, the phone number matches that of the consumer. Thus, in most instances, there is no serious question that the employees were with the consumer during that period.

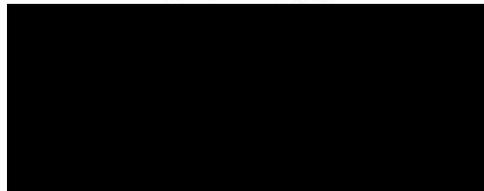
Although some of the PATTI records do not include a code for the services provided during that time, the real question should be whether Global provided appropriate services, not whether it kept adequate records of those services.

In order to answer that question, Global would like the opportunity to supplement its records with affidavits from both service providers and consumers confirming that appropriate services were provided. Those affidavits would be specific and particularized. The affidavits, combined with the information already on record, should be considered adequate proof that appropriate services were provided by Global to the clients at issue.

Global recognizes that, as auditors, BFO generally relies only on records prepared at or near the time a service is provided. However, as noted, the ultimate question is whether Global has provided the services for which it seeks payment. There is no regulatory or statutory authority for the recovery of payments solely on the basis of faulty recordkeeping.

The reality is that, in most, if not all, cases, Global has provided appropriate and reimbursable services. Statements made under penalty of perjury should be acceptable proof of that fact if they are specific and particularized to the consumer, especially when both the consumer and the provider agree that appropriate services were provided.

Best regards,



Attachment

cc: Olayemi Gbadamosi (via email)
Maruf Ali (via email)



Harrisburg, PA 17108-1146

Re: *Global Empire matter*

December 27, 2013

[By Email]

Dear Mr. Warsaw:

Your law firm has asked me to review the statistical sample and extrapolation described in the Pennsylvania Department of Public Welfare's October 8, 2013 letter to Global Empire, LLC ("Draft Audit Report").

In the next section I describe my qualifications to perform a statistical review. I follow with questions and issues regarding the statistical methodology. The third section contains some specific comments and observations based on the information I was provided, although as I describe below, I need more information to perform a complete review.¹

I. Qualifications

My name is [REDACTED]. I am a [REDACTED]. My work includes statistical sampling, analysis, and review for government and industry. On several occasions, I have written expert statistical reports or testified as a statistical expert, both in court and in depositions. My experience includes:

- Statistical sampling and analysis of financial records on behalf of the United States

¹ I stress that after I obtain the information I describe below, I will likely have additional questions and requests as a result of my review, and so may require more data at a later point.

Geological Survey.

- Statistical review of the sampling and estimation methodology used to audit Medicaid providers in New York State. Work was performed on behalf of the New York State Office of Medicaid Inspector General.
- Analysis of failure rates and survival modeling regarding the chances of catastrophic failure of an undersea oil field, on behalf of a major construction company.
- Statistical sampling and analysis, including regression modeling and survival analysis, on behalf of the U.S. Department of Labor.
- Statistical modeling and prediction related to determining the number of prescriptions filled for a variety of pharmaceutical products in separate projects for a pharmaceutical company and for an industry data provider.
- Review and testing of telecommunications data and statistical methods on behalf of public service commissions (including statistical sampling).

My work often involves use of statistical software and I frequently use Stata (commercial software) and R (open source) for statistical sampling and analysis. I am familiar with Ratsstats, which was apparently used in this audit.

I received a Ph.D. in Statistics from the University of Pennsylvania, where I also received a B.S. in Economics. I have taught courses in statistics and quantitative methods at the University of Pennsylvania and American University and have published several statistics papers in peer-reviewed journals.² I am also the co-inventor on a U.S. Patent [REDACTED] for a statistical process design to test the systems of telecommunications companies. A copy of my resume is attached as an appendix to this report.

II. Sampling Methodology Issues

In order to perform a statistical review of the audit, I need a complete sampling methodology, along with sufficient data to replicate the sample and calculations performed in the audit. The very brief description in the Draft Audit Report does not cover the key components of a sampling methodology. Below, I list several of these components, along with some initial questions I have

² Publications in the last 10 years are listed in my resume, which is in the appendix.

and data I need in order to complete my review:³

Population to be sampled. The population to be sampled forms the basis of any extrapolations done, but I am not clear on how this population was defined.

- Was the target population all patients with claims paid in the period? All patients with services provided in the period? Did it include patients who had some services in the period and some outside of the period? While I understand there were four strata from which a total of 336 claims were sampled, I was not provided with a database or list of claims from which these samples were obtained. What were the total number of claims by strata?

Sampling Frame and unit. The sampling frame defines the database or listing from which sample items are drawn and the unit is the basis of analysis of the sample.

- I need the electronic database from which the sample was drawn.
- Is this frame different from the universe? How? How were any differences accounted for in the extrapolation? What checks were performed to validate the universe against the target population?
- Is the unit an individual claim or a set of claims for a particular individual or something else?

Method of selection of sample. The method of selection defines how the sample is to be drawn from the sampling frame.

- The sample appears to be a stratified random sample – that is, the population appears to have been grouped into four groups, with random samples pulled from each. However, that information was not entirely clear in the Draft Audit Report. Was this a purely random selection? Was it with probability proportional to size? How were the probabilities of selection chosen? Was the sample selected with or without replacement?

Organization of the field work.

- How were determinations made with respect to validity and overpayment? If there was measurement error, how was this error accounted for in the projections or the calculation of the confidence bounds, if at all?

² Most of these components are discussed in general in Cochran, William G., *Sampling Techniques, 3rd Edition*, John Wiley & Sons, 1977, New York, pp. 4-7.

Estimation technique. The results of the field work are generally compiled into a statistical estimate, which is accompanied by either confidence bounds or another calculation of precision.

- What statistical technique was used to project the results of the sample? How was the confidence interval calculated? What were the specific mathematical formulas used and in what textbooks can they be found? What assumptions were needed for the projection and confidence interval and how were these assumptions tested?

Required precision and sample size. The sample design presumably included a determination of how many units should be sampled from each strata in order to achieve a certain precision.

- How was the sample of 336 determined to be the appropriate size? What was the precision goal of the sample?

Necessity of Replication

In order to fully evaluate the sample and extrapolation, I need to be able to repeat the steps performed by the auditor in order to validate them. By this “replication,” I can ensure the sample itself was properly pulled and that the calculations were correctly performed. Thus, in addition to the methodology itself, I also need to be able to completely replicate the sample and results. This need is acknowledged in the Federal Government’s guidelines on overpayment sampling in Medicare and Medicaid, which explains that key sample steps be documented “to ensure that the necessary information is available for anyone attempting to replicate the sample selection.”⁴ In order to do this, I need: [REDACTED]

⁴ A fuller quote of this requirement is as follows:

The PSC or ZPIC BI unit or the contractor MR unit shall identify the source of the random numbers used to select the individual sampling units. The PSC or ZPIC BI unit or the contractor MR unit shall also document the program and its algorithm or table that is used; this documentation becomes part of the record of the sampling and must be available for review. The PSC or ZPIC BI unit or the contractor MR unit shall document any starting point if using a random number table or drawing a systematic sample. In addition, the PSC or ZPIC BI units or the contractor MR units shall document the known seed value if a computer algorithm is used. The PSC or ZPIC BI units or the contractor MR units shall document all steps taken in the random selection process exactly as done to ensure that the necessary information is available for anyone attempting to replicate the sample selection. (Section 8.4.4.2, Medicare Program Integrity Manual, available online at <http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/pim83c08.pdf>).

1. the electronic file containing the sample frame;
2. the computer program used to pull the sample (not simply the name of the commercial software package);
3. the random number seed or seeds used to pull the sample;
4. the sort order of the universe when the random numbers were assigned;
5. any other information that I need in order to pull the exact same set of items and validate that the auditor appropriately used the designed sampling method;
6. the computer program and a complete description of the method used to calculate the overpayment estimate and the confidence interval.

III. Specific Comments

I was provided with an Excel spreadsheet that contained the sample results for the 336 claims sampled by the auditor. The table below shows how these claims were broken down by month and strata.

Table 1: Sample Claims by Strata and Month

Month	Strata 1: 0 to 100 Units	Strata 2: 101 to 200 Units	Strata 3: More than 200 Units	Strata 4: Adjusted Items	Total
Jul-2012	6	12	11	1	30
Aug-2012	6	7	15	1	29
Sep-2012	2	5	5	3	15
Oct-2012	9	10	10	8	37
Nov-2012	8	9	4	7	28
Dec-2012	8	7	8	14	37
Jan-2013	9	15	9	14	47
Feb-2013	18	7	7	10	42
Mar-2013	13	5	5	6	29
Apr-2013	6	8	5	14	33

May-2013	3	1	5	0	9
Jun-2013	0	0	0	0	0
Total	88	86	84	78	336

While there is some variation by month, it is striking that there were only 9 claims sampled from May 2013 and no claims sampled from June 2013. Using a file containing all claims from July 2012 through June 2013, I found that of 5,373 claims, 524 claims (about 10%) were from June 2013. This was consistent across strata – that is, in each of the four strata, about 10% of the claims were from June 2013. I calculated that, if the sample were actually a stratified random sample of the population of 5,373 claims, there is virtually no chance of the sample containing no claims in June 2013. In particular, I calculated those chances as less than 1 in a trillion.⁵ Put simply, the sample clearly was not a stratified random sample of the universe of 5,373 claims that I obtained.

Further, the sample results indicate that the later months had the lowest error, meaning the Draft Audit Report’s estimate will be biased upward, meaning it will be higher than it should be due to this error. In particular, from February through May of 2013, the percentage disallowed was never more than 10% for any strata. Indeed, in some cases it was zero or even negative (indicating an underpayment). This good performance in the later months, coupled with under-sampling of these months, indicates a clear bias resulting in over-estimating the amount overpaid.

In addition to this flaw in the sampling itself, the extrapolation was performed incorrectly. A stratified random sample must be extrapolated by strata, in order that each strata is weighted according to its size in the population. The results in the Draft Audit Report extrapolation were pooled together with no regard to the stratification, resulting in bias, and thus the estimate of 24.57%, shown on page 1 of the report, is incorrect.⁶ In addition to this mis-calculation, no indication is made of the margin of error or precision of the estimate. All statistical estimates

⁵ The particular calculation was performed in R with the command “`phyper(0,235,2453-235,88)*phyper(0,141,1416-141,86)*phyper(0,96,980-96,84)*phyper(0,52,524-52,78)`.” This resulted in chances of less than 1 in 10 to the power of 15, which is less than one in a quadrillion.

⁶ For proper formulas concerning estimation in stratified samples, see Cochran, William G., *Sampling Techniques*, 3rd Edition, John Wiley & Sons, 1977, New York, p. 164-165.

have some degree of error. While I do not have the information to exactly estimate the precision of the estimate, the sample results indicate that, for a 90% confidence interval, the range is about 19% to 28%, and ranges by strata are from as low as seven percent to as high as 38%. These results are assuming no errors were made in the pulling of the samples.

I look forward to receiving the data outlined above and performing a complete review. Please do not hesitate to contact me with any questions.



Resume of [REDACTED]

EXPERIENCE

Summit Consulting, Director, 2013-present

Lead a group of statisticians and economists in statistical sampling, analysis, estimation, and modeling projects on behalf of law firms, government, and private industry. The firm is skilled at presenting complex ideas to non-experts. Capabilities include development and implementation of statistical techniques as well as critical review and audit of existing statistical estimates, samples, and models.

Salt Hill Statistical Consulting, Founder and Principal, 2000-2008, 2013-present

Founder and Principal of a statistical consulting company (formerly Quantitative Analysis). The company's clients are law firms, government, and private corporations and have included: United States Department of Labor; Pfizer; Barnes & Thornburg; Honeywell; K&L Gates; City of New York

Analysis & Inference, Inc., CEO, 1991-1995 and 2008-2013

Led a statistical consulting company that provided services to corporations, law firms, and government.

KPMG LLP, Practice Leader, Quantitative Analysis Group – New York, 1996-2000

Established and led the New York office of KPMG's Quantitative Analysis Group. Built a consulting practice with annual revenues of \$4 million.

Morgan Stanley, Associate, 1988-1990, 1995-1996

Performed statistical modeling and software design.

EDUCATION

Ph.D., Statistics, Wharton School, University of Pennsylvania, 1995

M.A., Statistics, Wharton School, University of Pennsylvania, 1992

B.S., Economics (concentration in Economics and Finance), *cum laude*, Wharton School, University of Pennsylvania, 1988

ENGAGEMENTS

- On behalf of a Fortune 100 company, evaluated models that estimated the potential liability in more than 10,000 asbestos settlements. In addition, reviewed the likely bias and other issues with a model that predicted the "propensity to sue" for future claims. Wrote two expert reports concerning findings and testified as a statistical expert regarding those findings.
- On behalf of the New York State Office of Medicaid Inspector General, reviewed the sampling and estimation methodology used to audit Medicaid providers in New York

State. Reviewed and critiqued specific methodologies in ongoing matters, and provided recommendations for improving the statistical audit process.

- In a series of matters on behalf of the law department for a major city, created and analyzed a massive real estate database, modeled market and sales values, and wrote expert reports to determine potential biases of alternative methods of valuing commercial real estate. Determined the validity of assumptions about lease lengths, turnover rates, and other issues affecting rents and property values. Testified as a statistical expert in one of these matters.
- On behalf of the United States Department of Labor, acted as the principal investigator on a study of industry compliance with certain labor laws. Developed and pulled a statistical sample for evaluation. Performed survival analysis to better understand how long certain industry investigations would last and the likely outcomes of such investigations.
- For major pharmaceutical company, analyzed company and external marketing data to determine reliability and potential biases in using external data sources. Analyzed physician-specific data for a period of 36 months concerning product marketing to approximately 1 million prescription drug subscribers.
- In complex litigation matter involving an undersea oil field, analyzed data from several years of inspections and repairs to determine likelihood of a catastrophic failure that would result in a major oil spill. Used survival analysis to determine the likelihood of such an event for different inspection and repair cycles.
- On behalf of several state public service commissions, directed data analysis and statistical design in a series of tests of Bell South, Verizon, SBC-Ameritech, and Qwest. Beginning in 1998, developed software and procedures for calculating performance metrics and evaluating the competitive environment. Testified before several state public service commissions, including New York, Virginia, Florida, Michigan, and Colorado.
- Using social security and insurance company data, developed two probability-based models in order to match unclaimed assets with the individual owners of those assets. The models were successfully implemented at our client, a financial services company, and used to assist state agencies in locating unclaimed assets.
- For hedge fund, performing an ongoing series of projects related to pricing risk and return of various investment options. Using standard and proprietary statistical techniques and software, developing models to select appropriate investment funds according to risk and term of investment.
- For large direct market publisher, improved customer response modeling while reducing the costs of test marketing. Overall test marketing was reduced by combining data for various market segments. This method also increased the precision of the scores assigned to customers concerning their propensities to purchase individual books. These

improvements were expected to lead to cost savings and revenue improvement totaling about \$1 million annually.

- Modeled television audience ratings to determine the Public Broadcasting System's share of cable royalty distributions. Used statistical methods to determine a reliable estimate of PBS's cable royalty share. The estimate resulted in a multi-million dollar decision in favor of the Public Broadcasting System by the Cable Royalty Tribunal.
- Lead statistician in the design and implementation of a sample of all personal property and equipment on behalf of the United States Internal Revenue Service. The population of interest involved more than one million items contained in over 1,000 buildings. The sample design, implementation, and resulting estimates and projections were subject to intense scrutiny by the United States General Accounting Office.
- For the United States Department of Justice, designed and implemented a sample to estimate the number of immigrants improperly granted citizenship. The sample was designed to provide precision of plus or minus less than 1%, for a population of more than 1 million immigrants. The work was the focus of intense congressional scrutiny and received substantial review in the media.
- On behalf of Fortune 100 company, created statistical models to determine the probabilities and likely severities of accidents for different employee and accident types. This project resulted in recommended annual savings of \$3 million.
- On behalf of the Arava Institute of Environmental Studies, advised on design and sampling methodology for a broad-based survey of environmental education in middle and high schools. More than 7,000 students were surveyed in a sample that was stratified by size of town, income level, and other socio-economic variables. Performed weighted statistical analysis to project survey results to the population. Presented results before Israeli Congressional committee in July 2007.
- For the United States Customs Service (Department of Homeland Security), assisted with sampling of financial statement information. Designed and wrote sampling plans, helped implement the plans, and created spreadsheet calculator to analyze results. In an earlier engagement, evaluated the credibility of statistical sampling and analysis used to track and categorize imports, for the Office of Inspector General. Suggested improved methods of sampling and implementation.
- Designed and implemented several studies of stock basis in corporate mergers. One universe comprised over 100 million shares and more than 20,000 shareholders, yet the sample design resulted in a highly precise estimate using data for fewer than 1,000 shareholders.

RESEARCH

An excerpt from my “What are the chances?” blog appears in Lundsford, Andrea L. and

Ruszkiewicz, John, *Everything's an Argument, 6th Edition, 2012* and Lundsford, Andrea L., Ruszkiewicz, John, and Walters, Keith, *Everything's an Argument with Readings, 6th Edition, 2012*.

"Law and Statistics of Combining Categories: Wal-Mart and Employment Discrimination Cases", with Albert J. Lee, *Proceedings of the 2010 Joint Statistical Meetings of the American Statistical Association*, 2010.

"Evaluating the Environmental Literacy of Israeli Elementary and High School Students," with Maya Negev, Gonen Sagy, and Alon Tal, *Journal of Environmental Education*, Winter 2008.

"Trends in Environmental Education in Israel," with Gonen Sagy, Maya Negev, Yaakov Garb, and Alon Tal, *Studies in Natural Resources and Environment*, Vol. 6, 2008. [In Hebrew]

"Results from a Representative Sample in the Israeli Educational System," with Gonen Sagy, Maya Negev, Yaakov Garb, and Alon Tal, *Studies in Natural Resources and Environment*, Vol. 6, 2008. [In Hebrew]

"Comment on Local model uncertainty and incomplete-data bias by Copas and Li," with Paul R. Rosenbaum, *Journal of the Royal Statistical Society, Series B*, 2005.

"Determining Air Exchange Rates in Schools Using Carbon Dioxide Monitoring", with D. Salzberg and C. Fiegley, presented at the *American Industrial Hygiene Conference and Expo*, 2004.

"The Modified Z versus the Permutation Test in Third Party Telecommunications Testing", *Proceedings of the 2001 Joint Statistical Meetings of the American Statistical Association*.

"Removable Selection Bias in Quasi-experiments," *The American Statistician*, May 1999.

"Skewed oligomers and origins of replication," with S. Salzberg, A. Kervalage, and J. Tomb, *Gene*, Volume 217, Issue 1-2 (1998), pp. 57-67.

"Selection Bias in Quasi-experiments," (Doctoral Thesis), 1995.

Patent [REDACTED] One of five inventors on a patent for statistical process design related to information systems testing.

PRESENTATIONS

- Panelist and Presenter of "Secrets to Effective Communication for Statistical Consultants," Joint Statistical Meetings of the American Statistical Association, 2013, with Ghement, Isabella; Mangeot, Colleen; Rantou, Elana; Schuenemeyer, Jack; and Turner, Ralph.

- Lectured on "Statistics in Predictive Coding" as part of a one day seminar sponsored by the Cowen Group and Equivio in the area of e-discovery, 2012.
- Presented paper (with Albert Lee) entitled "Law and Statistics of Combining Categories: Wal-Mart and Employment Discrimination Cases" at the Joint Statistical Meetings of the American Statistical Association, 2010.
- Delivered presentation on census data from the New York City Housing and Vacancy Survey, before the New York City Rent Guidelines Board, 2007.
- Part of a team of five presenting results before an Israeli congressional committee regarding a nationwide public school survey, 2007.
- Served on panel and presented "The Modified Z versus the Permutation Test in Third Party Telecommunications Testing" at the Joint Statistical Meetings of the American Statistical Association, 2001.
- Delivered talk regarding "Skewed oligomers and origins of replication" at Hebrew University in Jerusalem, 1999.

PERSONAL

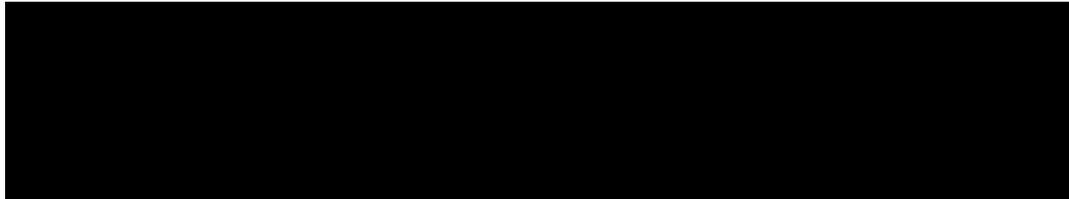


EXHIBIT B



ISSUE DATE
May 16, 2013

EFFECTIVE DATE
May 16, 2013

NUMBER
05-13-05, 08-13-05, 11-13-05, 17-13-05,
19-13-05, 25-13-05, 26-13-05, 41-13-05,
51-13-05, 54-13-05, 55-13-05, 59-13-05

SUBJECT:
Clarification of type, scope, amount, duration and frequency of services


Bonnie L. Rose
Deputy Secretary, Office of Long-Term Living

SCOPE: This Bulletin applies to Office of Long-Term Living (OLTL) Medical Assistance (MA) Home and Community-Based Services (HCBS) Service Coordinators and Direct Service Providers for the Aging, Attendant Care, COMMCARE, Independence and OBRA Waivers and the Act 150 Program.

PURPOSE: The purpose of this Bulletin is to clarify the meaning of type, scope, amount, duration and frequency of services provided in 55 Pa. Code Chapter 52 in order to ensure consistency in the accuracy and quantity of services provided by service coordinators and direct service providers.

DISCUSSION:

OLTL monitors providers to ensure that the correct type, scope, amount, duration and frequency of services are rendered to participants. This bulletin addresses provider questions regarding the meaning of each of these terms.

The terms type, scope, amount, duration, and frequency are used in 55 Pa. Code Chapter 52 in reference to appropriate documentation needed to verify that a service has been ordered, has been rendered and has been billed for appropriately. Each claim is reviewed by OLTL to ensure the appropriate type, scope, amount, duration and frequency of services is rendered by a provider. 55 Pa. Code, Chapter 52 can be found at:

<http://www.pacode.com/secure/data/055/chapter52/chap52toc.html>

POLICY

The terms type, scope, amount, duration, and frequency mean the following unless the context of the regulation clearly indicates otherwise.

- 1. Type

Type means that the provider is qualified and enrolled with the Department to provide the particular waiver service. OLTL reviews a provider to ensure that the service ordered is a service that the provider is authorized to provide. For example, only provider types 51, 55, and 59 are authorized to render and bill for service coordination services.

The following link leads to a list of all Provider Types and Specialty Codes, as listed in PROMISE, and their meaning or description of provider specialty:
http://www.dpw.state.pa.us/ucmprd/groups/public/documents/communication/s_002145.pdf

2. Scope

Scope means that the specific services to be delivered match the service definition.

3. Amount

Amount means that the number of units ordered and documented on the service plan are delivered to the participant. If the number of units ordered are 50 units per week, and the amount of units delivered is 46, then the total amount of services ordered has not been rendered. OLTL will accept reasonable documentation as to why units were not delivered such as:

- Participant refused service.
- Participant ill and service could not be delivered.
- Family member delivered service in lieu of provider.

Unacceptable reasons include provider being unavailable to deliver services.

Documentation may be maintained in service notes, in a participant's file, or wherever the agency chooses as long as it is maintained and accessible for monitoring.

A provider cannot bill for 50 units if only 46 were delivered. See 55 Pa. Code §§ 52.14(n) in addition to §§ 52.14(q) and 52.42(d). Documentation must be kept to show that services were provided for the correct amount or, if they were not, why not.

4. Duration

Duration means that services are provided in the amount of time scheduled. If the participant is scheduled to receive 2 hours of Personal Assistance Services (PAS), then the PAS provider should deliver 2 hours of service. Again, reasonable explanations as listed in paragraph 3 will be accepted as to why a service was not delivered in the appropriate duration. See 55 Pa. Code § 52.14(n). Documentation must be kept to show that services were provided for the correct duration or, if they were not, why not. Providers also need to assure that only those hours actually delivered and documented are billed

5. Frequency

Frequency means that services are provided the scheduled number of times, such as once a month, once a week, etc. Again, reasonable explanations as listed in paragraph 3 will be accepted as to why a service was not delivered in

the appropriate frequency. See 55 Pa. Code § 52.14(n). Documentation must be kept to show that services were provided for the correct frequency or, if they were not, why not.

OLTL monitors providers to ensure that the correct type, scope, amount, duration and frequency of services are being rendered to participants. Violation of the provision of this bulletin will result in corrective action steps being taken by OLTL. See 55 Pa. Code §52.23.

COMMENTS AND QUESTIONS REGARDING THIS BULLETIN SHOULD BE DIRECTED TO:

**Department of Public Welfare
Office of Long-Term Living
Bureau of Policy and Regulatory Management
555 Walnut Street, 6th Floor
Harrisburg, PA 17101
(717) 783-8412**