

GRANT SEEKER:

PROGRESSIVE HEALTHCARE GROUP

501C3 NOT-FOR-PROFIT RURAL HEALTH CLINIC

APPLICATION COMPLETION: Linda Arnold
Treasurer – Progressive Healthcare Group
300 S Ocotillo
Benson Az 85602
Phone Office: 520-586-9111
Phone Cell: 520-850-5015

EXECUTIVE SPONSOR: Michael Gray M.D
CEO / Medical Director Progressive Healthcare
300 S Ocotillo
Benson Az 85602
Phone Office: 520-586-9111
Phone Cell: 520-686-1695

AMOUNT OF REQUEST: **\$50,000.00**

Progressive Healthcare Group
300 S Ocotillo
Benson, AZ 85602
520-586-9111

**ASET Arizona Strategic Enterprise
Technology**
Unconnected Healthcare Providers
Health Information Exchange Grant Program

Organizational description
Current use of HIE

Progressive Healthcare Group (PHG) is a 501c3 not for profit clinic serving Benson, Arizona proper and the San Pedro Valley Hospital District (SPVDH) for 13 years. PHG has always been committed to serving all patients in our service area. PHG is under the direction of Michael Gray M.D, CEO and Medical Director. Dr Gray has served the primary care needs of the Benson area since May of 1986. Dr Gray has extensive knowledge of the Benson area and of the healthcare needs of the medically under-served. He currently holds a master's degree in public health, a medical degree, and is an internist and clinical toxicologist. Dr Gray is nationally known for his work in environmental medicine. He has considerable experience administering grants, having written and administered several funded grants during his tenure at the University of Arizona. Dr. Gray's curriculum vitae is submitted as an appendix to this grant proposal.

PHG is a primary care practice with internal and occupational medical expertise and equipment. PHG offers extended hours and caters to walk-ins regardless of the ability to pay based on a sliding fee schedule. PHG is the sole provider for adult AHCCCS (Arizona Healthcare Cost Containment System) patients in this area and for 80% of the children in the AHCCCS program. This clinic sees patients on a sliding fee scale when their income qualifies according to state guidelines without support from the state.

PHG employs 2 full time physicians, 1 part time physician, 1 full time physician's assistant, and facilitates 2 specialists, 1 cardiologist and 1 orthopedic specialist that see patients several times a month. PHG also enjoys a medical and office staff comprised of 4 full time Medical assistants, 1 medical records coordinator, 1 in house information technology specialist, 2 front office coordinators, 1 billing specialist, 1 part time diabetic counselor, and 1 office manager. Currently, two staff members speak fluent Spanish, and help our Spanish speaking patients through their clinical visits.

We have contracts with most insurance companies like every other medical practice in Benson and we bill them fee for service and get paid by the fee schedules. The difference is patients with no insurance. With Benson being a federally designated medically underserved area PHG provides primary care to virtually every uninsured person in Northern Cochise County that is unable to pay at time of Service. PHG offers quality healthcare at the lowest feasible cost.

PHG sees a wide range of patients: approximately 900 a month, including 35 % AHCCCS, 25 % Medicare, 10 % commercial insurance, 15 % self pay, and 15% other payers. The practice operates in a not for profit model, which has made it possible to see those patients unable to pay without government funding, using a sliding fee scale.

Decreasing reimbursements and increasing administrative requirements have combined to make provision of medical care to all inhabitants of the San Pedro valley more and more difficult.

PHG currently uses a certified electronic health record system (EHR). This was acquired through a collaborative GITA grant with Benson Hospital in 2006. Benson Hospital has been involved with the Health Information Exchange (HIE) project in Arizona since its inception in 2006, being the first rural Critical Access Hospital (CAH) hospital sending data to the HINAZ.

We have been in close communication with Benson Hospital since the beginning of the HIE project. The PHG strategic plan anticipates being one of the first providers to connect with the HIE. It has always been a belief of PHG that improving patient care requires improving access to a complete and current medical record for each patient, so that all providers can make informed decisions in the care of each patient.

Although PHG uses a certified EHR, Soapware from Docs Inc, and has been using this electronic medical record for 4 years, as with most rural providers we are forced to rely on a labor intensive, time consuming paper system which scans and imports documents. These documents are often not time sensitive and definitely not usable as actual data that can be measured in quality, or best practices evaluations. PHG has attested to one provider in the Medicaid meaningful use program, and will attempt to attest the other two qualified providers this year. Structured data is our most pressing need in meeting the criteria for the coming 2012 – 2013 meaningful use requirements.

PHG sees approximately 900 patients a month. Of these patients 65-75% require laboratory testing, 15-20 % require radiology testing, 10-15% are referred to specialists, 5-10 % are follow up visits from emergency encounters or inpatient stays in either our local CAH hospital or Tucson and surrounding hospitals, 10-15% require vaccine verification or administration and 5-10 % are new incoming patients for our clinic. PHG's strategic plan emphasizes the importance of a current and complete medical record on all patients.

Geographic area and population demographics

The Benson Arizona population is 12,227 and is located in Primary Care Area (PCA) 03204. Benson is designated a MUA, PSA, and a Low income HPSA. PHG's service population is the same as that of the San Pedro Valley Hospital District (SPVHD): 16,500. The boundaries of the SPVHD are approximately the same as those of the PCA. Winter visitors are estimated to swell the population by 30%.

There are 6 FTE physicians, 1 physician's assistant and 2 Nurse Practitioners serving this population with only 2.5 FTE physicians and 1 physician assistant serving the AHCCCS share of this population.

Benson is a geographic center for mental health in Cochise County serviced by the Cenpatico Behavioral Health, a not for profit community mental health and substance abuse prevention and treatment agency funded by the Arizona Department of Health Services and AHCCCS. Mental health is also serviced by the Psychiatric Health Facility (PHF) with 10 sub-acute beds and a partial care program.

The economic picture of the Benson area shows an unemployment rate of 11.7% , as compared to Cochise County with an unemployment rate of 8.4%. The Benson Primary Care Area includes 12.0% of it population below 100% of the Federal Poverty Level (FPL)and 35.8% that are below 200% of the FPL.

Process improved with HIE

Two of the primary burdens for providers in the Medicaid system are:

1. The administrative overhead required in processing eligibility, referrals, prior authorizations, demographic data, medication reconciliation's, current and past medical condition monitoring, and current vaccine status.
2. Managing the volume of data that is coming in from all directions each day, and seeing that all of that data is sorted, evaluated, reviewed, and placed in the correct patient chart.

Bringing all of this information together in a single location creates the optimal model for coordination of care across the many entities involved in each patient's care.

With this grant we expect to plan and implement the first steps to achieving an interface with HINAZ that will allow PHG to receive structured laboratory results, Radiology reports, and Text based reports i.e HL7 ORU which would be all transcription (Inpatient H&P, Progress Notes, Discharge summaries, ED documents and Rehab Certifications and progress notes) from HINAZ. We will begin receiving laboratory data that is structured and complete for all laboratory results from all entities involved in the HINAZ (a complete list is attached). Data that is in a structured format allows analysis of quality measures and best practices medicine. Labor intensive scanned papers will be replaced with structured data that is current and available for analysis. Trends in laboratory values will be immediately noticeable, therapeutic values can be monitored effectively, and medical conditions can be evaluated and treated more effectively and efficiently. Radiology reports and text based summary reports, such as discharge summaries, Emergency encounter documents, progress notes, referral reports, will be sent to PHG's EHR via a secure VPN connection immediately as they become available. Our labor intensive procedures for scanning laboratory results, radiology reports, and many other text based reports will be replaced with an efficient system for receiving structured and timely clinical data.

Currently complete structured laboratory data is unattainable as it would require an interface with Sonora Quest, Labcorp, and Benson Hospital to deliver the major portion of that structured data. Increasing specific requirements for which laboratory is covered by each insurance, patient preference if they have a choice, and our commitment to support our local community hospital would make the amount of interfaces required for

complete laboratory data acquisition financially unattainable and still not structured and comparable between all these entities.

The current labor intensive process of scanning Laboratory data and radiology reports and other text based reports in PDF format into our EMR would be replaced with structured data that imports directly into the patient chart. Currently laboratory results and radiology reports are received via fax and courier, These reports are sorted by provider and placed in bins, then scanned into the chart for the physician to review and sign, and finally placed in bins for shredding and disposal.

- ◆ The savings in administrative overhead involved in receiving, distributing, scanning, and shredding would be a considerable amount including fax machines, paper, staff time and shredding and disposal fees.
- ◆ The timeliness of the information would be considerably improved, as results would be available in real time as results are available from the entities performing the services.
- ◆ Evaluation of these results will be enhanced as trends can be monitored in structured data, and radiology and transcription data will be immediately available for decisions concerning needed specialty intervention.
- ◆ Ability to meet Meaningful Use standards concerning structured data from laboratories.

Our local CAH hospital is actively involved with the care of many PHG patients. PHG supports the local hospital when services are needed. PHG believes keeping a hospital in the community is vital to patients. Sharing data effectively with the local hospital would greatly improve and expedite care for patients. Many patients are seen for emergency care, laboratory work, radiology procedures, physical therapy, and other services. Improved sharing of information will greatly enhance the coordination of care efforts. The cost of an interface between the local hospital and local providers has always been a limiting factor. For this reason the hospital has been deeply involved and supported the HIE since its inception. The HIE appears to be the only cost effective means for sharing data for small hospitals and providers.

PHG proposes to use this grant as a means to begin an ongoing relationship with the HINAZ. We will accomplish an interface to HINAZ to receive laboratory results, Radiology reports, and transcription. Partnering with the HINAZ will give PHG the potential to grow with the HIE and eventually send and receive all clinical data. Needed information from PHG will be available immediately for other members of the HINAZ. This information including current medication, diagnosis, insurance, and orders will be available to all members of the HINAZ. This is the beginning point in seamless communication, and an exciting time in healthcare. PHG looks forward to contributing toward a complete and current medical record on all patients. PHG will see that all Medicaid patients have access to everything the HIE has to offer in improvements in quality and timeliness of care.

Potential immediate enhancements to the complete medical record through partnership with the HINAZ include:

- ◆ structured and timely laboratory results
- ◆ timely radiology reports
- ◆ timely transcription reports
- ◆ discharge orders and referral reports
- ◆ complete and timely emergency room summary documents

Future enhancements include:

- ◆ sending and receiving insurance and demographic information
- ◆ sharing complete medication lists and current and past diagnosis for each patient
- ◆ transition of care summaries from physician electronic medical records for incoming and outgoing patients.
- ◆ current and complete vaccine records for all patients, adult and child
- ◆ personal health records and care management portals
- ◆ monitoring medication compliance and formularies

How it will serve needs of under served

Medicaid patients present a challenging and unique group. Recipients are often in poorer physical and mental health than populations covered through commercial insurance. Over 60 % have at least 1 chronic or disabling condition, and almost half have been diagnosed with a second chronic or disabling condition. Up to 25% of Medicaid recipients have a mental health or substance abuse disorder. Because of the unique problems presented by the Medicaid population, the HIE appears to be the best solution to complete information at the point of care. Partnering with the HIE will allow PHG to continue to function financially and provide high quality care to the medically underserved for many years.

As evidenced by the in-kind commitment from PHG, the organization is committed to this project and to our Strategic plan to continue to be an active part of a complete and fully functional EMR for all patients. It is recognized that this will require a long term commitment, well past the term of this grant, to achieve the goals of the strategic plan. PHG is excited to be considered for funding for this important first step. With the funds of this grant PHG will acquire the needed hardware and technology to remain an efficient provider of care for the medically underserved, with a strong voice for competent and concerned care for all patients regardless of their ability to pay.

PROJECT WORK PLAN

PHG has opened communication with all interested parties in this grant. We have met several times with Rob Roberts, Benson Hospital IT director who has extensive knowledge of the HIE and particularly HINAZ as Benson Hospital is already sending data to HINAZ to be sure we are fully informed of the process. We have had several conference calls with the primary members of PHG, HINAZ, Soapware and MTS Technology to be sure that we have attainable goals and a complete picture of the costs and time involved in this project.

Expected milestones

- ◆ planning and coordination between PHG, Soapware, and HINAZ. Calendar design for clinic and staff time required for implementation and training.
- ◆ evaluate and design a patient consent form for electronic clinical information sent and received
- ◆ design and implement patient education for HIE
- ◆ evaluate security and HIPPA considerations, and assure there are adequate and complete policies and procedures in place, as well as adequate employee training to implement the HINAZ Interface.
- ◆ ordering and replacing outdated network components and adding new security hardware
- ◆ HINAZ, Soapware, and in-house IT coordination on design and implementation of interface.
- ◆ installation and testing for a secure VPN connection for data exchange
- ◆ evaluation of HL7 specs and installation and configuration of interface.
- ◆ receive test data from HINAZ to PHG
- ◆ test interface maps with test data for correct formatting and display
- ◆ Q.A review of test data with HINAZ, Axolotl, Soapware, and PHG
- ◆ address any problems or inconsistencies in interface.
- ◆ sign off on test data validity and formatting
- ◆ finalize training for PGH staff
- ◆ receive live data from HINAZ to PHG
- ◆ continue planning and initiate a project plan for bi-directional communication between HINAZ and PHG.
- ◆ final reports to ASET and project completion

Communication plans to update all participants:

1. Primary contacts at each participant – Soapware EHR, HINAZ, MTS Technology and PHG
2. Email system that updates all participants implemented, supported and coordinated by our in-house IT specialist.
3. Structured meeting dates and times for coordination.
 - ◆ Monthly IT review and status phone meeting with Soapware, HINAZ, Zachary Cantrell – PHG, Linda Arnold – PHG, Daniel Coca - MTS Technologies, and Rob Roberts,
 - ◆ Weekly process meetings within PHG to include Rob Roberts at least monthly.
 - ◆ Monthly progress reports, prepared by Shana Arnold Office Manager, to ASET.

Names and titles of all primary team members and roles

Michael Gray M.D. M.P.H	CEO, Medical Director PHG	Coordination and oversight of Grant project. Clinical implementation
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	Primary Mgray@phgaz.com	evaluation Review and approve policies
Sean Dorado P.A.	Physician Assistant Sdorado@phgaz.com	Lead clinical implementation for EMR and Grant project Evaluation incoming and outgoing data. Evaluation of test data Provider training Staff training
Zachary Cantrell I.T.	In-House IT Specialist Zcantrell@phgaz.com	Coordination of IT specialists Installation and configuration of hardware and software In house support of interface efforts Training and support for Progressive staff
Linda Arnold M.L.T	PHG Treasurer Chief Laboratory Technologist – Benson Hospital Larnold@phgaz.com	Soapware EHR policies and procedures EHR configuration and support. Database prep for structured lab data with current LOINC codes. Evaluation of Lab test data Evaluation of live data
Shana Arnold	Progressive Healthcare Office Manager Sarnold@phgaz.com	Coordination of all operations and training in Clinic Coordination of information between Progressive Healthcare and ASET Clinic policies and procedures
Rob Roberts I.T	Director of IT Benson Hospital Rob@bensonhospital.org	Experience in HIE interface with Benson Hospital IT
Daniel Coca	Support Specialist MTS Technologies Daniel@mtstechnology.net	Optimize network configuration for large data flow in and out. Technical support for network specific issues Monitor network security
Terry Criner	Soapware interface specialists Terry.criner@soapware.com	Soapware interface design
Grant Grimm	Soapware implementation specialist Ggrimm@soapware.com	Soapware interface ,clinical coordination and training
Kalyanraman Bharathan	HINAZ Executive Director Kbarathom@hinaz.org	Coordination of HINAZ interface
Jaime Estrada	HINAZ Clinical Coordinator Jestrada@hinaz.org	HINAZ Clinical interface
Jeff Grant	Optum Group Asalgaonkar@axlotl.com	Optum Group HINAZ interface Hub Specialists

Budget narrative: - Staff salaries and time commitment:

When presented with this grant possibility PHG began to evaluate resources and see that most matching funds would have to come from in-kind support by the principle employees required to make this project a success. Again these core employees who are committed to PHG, and to the strategic plan have provided a large portion of the matching funds required to submit this grant.

Consultants:

Rob Roberts:

Director of IT, Benson Hospital. Mr. Roberts has been involved in the HIE since its inception directing and supporting the HIE interface between HINAZ and Benson Hospital. Mr. Roberts has extensive experience with the HIE and a vested interest in seeing our project succeed as it will connect PHG and Benson Hospital through the HIE interface.

MTS Technologies:

MTS Network Consulting is a Professional and complete IT Support and Services company providing IT services and support to small and medium sized businesses. MTS is proficient in design and implementation of high quality network infrastructure. MTS Network consulting currently is contracted to monitor our network and consult on any hardware and software projects in progress. They also monitor our servers for efficiency, safety, and security.

Legal:

Evaluation of policies, procedures and consents forms required for security and safety of the interface with HINAZ and the sharing of patient information through the HIE exchange.

Software and interface costs:

HINAZ: One time start up costs for interface with HINAZ and yearly connection fees

Soapware: Interface startup fees for Laboratory results, Radiology Reports, and transcription reports and yearly support fees for interface.

Hardware required:

PHG originally acquired the EMR and the hardware required to create a network by partnering with Benson Hospital for a GITA grant. PHG has continually upgraded and replaced hardware and software to keep the EMR and network functional. After evaluation by PHG in-house IT staff, MTS Technologies, HINAZ, and Soapware some areas of concern have been identified, such as the need to replace or upgrade several parts of the network. Such changes are necessary to handle the increased load required to move this volume of patient information quickly, safely, and securely in and out of the network. A complete list of such equipment is included in the budget.

CURRICULUM VITAE

NAME: GRAY, MICHAEL RICHARD

HOME ADDRESS: 879 E McNeil Rd.
Benson AZ 85602

OFFICE ADDRESS: 300 S Ocotillo
Benson AZ 85602

TELEPHONE: OFFICE: 520 586-9111
FAX 520 586-9091

PERSONAL: DOB: June 8, 1945
Single, four sons

PRIMARY AREAS OF INTEREST: Internal/Environmental/Emergency/Preventative and Occupational Medicine/Toxicology

CURRENT POSITION:

Medical Director
Progressive Healthcare Group
300 S Ocotillo, P.O. Box 1819
Benson AZ 85602
November 14, 1988 to present

Chief of Staff
Benson Hospital
450 S. Ocotillo
Benson, AZ 85602
2/2010 to present

Medical Director & Founding Board Member
Healthcare Innovations Inc.
dba Benson, Wilcox and Tombstone Ambulance Services
P.O. Box 3185
Benson AZ 85602
1990 to present

Medical Director and Founding Board Member,
Arrowhead Healthcare,
dba Showlow Emergency Medical Services

EDUCATION:

B.A. Antioch College – 1969
Yellow Spring, Ohio

M.D. University of Cincinnati,
College of Medicine – 1974

M.P.H. University of Illinois,

SPECIALTY BOARD STATUS	Certification	<p>American Board of Preventive Medicine: General Preventive Medicine & Occupational Medicine (1983)</p> <p>American Board of Internal Medicine: Board Prepared and Eligible</p> <p>American Board of Toxicology: Prepared</p> <p>American Board of Emergency Medicine: Prepared</p>
OCCUPATIONAL MEDICINE EXPERIENCE:	1978-pres.	<p>Independent Consultant Occupational and Environmental Toxicology (list of cases available upon request).</p>
	1981-1987	<p>Founding Chairperson, Department of Occupational Medicine Kino Community Hospital Tucson, AZ</p>
	1981.1982	<p>Pima County Physician Pima County Tucson, AZ</p>
	1978.1981	<p>Founding Director Occupational Medicine Service Arizona Center of Occupational Safety and Health University of Arizona Tucson, AZ</p>
	1978.1981	<p>Founding Director Occupational Medicine Residency Program University Medical Center University of Arizona Tucson, AZ</p>
ADMINISTRATIVE EXPERIENCE:	1996 – 2001	<p>Commissioner, Medical Directions Commission, State of Arizona, Department of Health Service Bureau of Emergency Medical Services 1996 thru 2001</p>
	1987-1992 & 1993.1996	<p>Chief of Staff Benson Hospital Benson, AZ</p>
	1988.1989	<p>Vice President</p>

	&		Board of Directors Benson Hospital Benson, AZ
	1990.1996		
	1986.1989		Member, Board of Directors M.D. Physicians, Inc. Sierra Vista, AZ
	1988-1989		Medical Director Southeast Arizona Area Health Education Center, Inc. (SEAHEC) Nogales, AZ
	1981-1987		Chairperson, Department of Occupational Medicine Kino Community Hospital Tucson, AZ
	1978.1981		Director, Occupational Medicine Arizona Center for Occupational Safety and Health (ACOSH) University of Arizona Tucson, AZ
	1979.1981		Principal Investigator Tritium Study, National Institute for Occupational Safety & Health (NIOSH)
	1979.1982		Principal Investigator Cooperative Asbestos Survey Mountain View Mobile Home Estates, Globe, AZ.. Partially supported by the AZ Dept. of Health Sciences in cooperation with the University of Arizona, the National Institute of Occupational Safety & Health, and U.S. Indian Health Services
CLINICAL TRAINING:	1974-1975		Intern, Internal Medicine Cook County Hospital Chicago, Ill.
	1975.1977		Resident, Internal Medicine Cook County Hospital Chicago, Ill.
	1977.1978		Chief Resident, Internal Medicine Cook County Hospital Chicago, Ill.
	1976-1978		Fellowship, Occupational Medicine Cook County Hospital Chicago, Ill.
TEACHING EXPERIENCE:	1978-1981		Assistant Professor, Occupational & Internal Medicine Department of Family and Community Medicine, University of Arizona, Health Sciences Center Tucson, AZ

	1978-1981	Director, Occupational Medicine Residency Department of Family and Community Medicine, University of Arizona, Health Sciences Center Tucson, AZ
	Winter '78	Instructor, Physical Diagnosis For Nurse Midwives University of Illinois College of Medicine College of Medicine
	1975-1978	Lecturer, In Occupational Medicine Urban Preceptorship University of Illinois College of Medicine
MISCELLANEOUS:	1968-1969	Teaching Assistant, Physics Department Antioch College Yellow Springs, Ohio
	1967-1968	Ecole d'Humanite, Instructor, New Mathematics 6 th – 8 th grades, Geometry, Algebra, Advance Placement Biology Goldern – am – Halisberg Switzerland
	Summer '67 Winter '67	Research Assistant, under Dr. Lee Hoffman Albert Einstein College of Medicine
	Spring '65	Surgical Research Assistant Heart Transplant and Artificial Heart Research (animal) Under Dr. Adrienne Kantrowitz Maimonides Hospital Brooklyn, NY
	Fall '64	Cablemaker, Lincoln Electric Welding Assembly Plant Cleveland, OH
	Winter '64	Orderly, Columbia Presbyterian Hospital New York
HONORS AND AWARDS:	1966, 1967, 1969	National Science Foundation Under-Graduate Research Grant,
	1970-71	National Institute of Health Summer Research Grants

OFFICES HELD:

1973 James G. Hyndman Traveling Fellowship

1981-87 **Member, Executive Medical Staff**
Kino Community Hospital,

1990-1996 **Member, Cochise County Board of Health**

1984 – 87 **Chairman, Infection Control Committee**
Kino Community Hospital,

1998-Present **Member, Board of Directors**
National Association for Public Heal Policy(NAPHP)

1981 – 87 **Chairman, Safety Committee,**
Kino Community Hospital,

1979 – 85 **Founding Member, Board of Directors**
Clinica Adelante USPH/NHSC
El Mirage, AZ (West Phoenix Area)

1984 – 85 **Member, Medical Executive Committee**
Cigna – Tucson, Arizona,

1984 – 85 **Founding Member, Medical Staff Council**
Cigna Health Maintenance Org – Tucson, AZ

1979 – 81 **Secretary, Occupational Health and Safety Section**
American Public health Association

1982 – 84 **Member, Board of Directors**
Traditional Indian Alliance (TIA) Clinic
Tucson, AZ

1979 – 80 **Chairperson, Program Committee,**
Occupational Health & Safety Section
American Public Health Association,

Jan. 1980 **Member, Center for Disease Control**
Task Force to Investigate Health Effects of
Asbestos Exposure
Mountain View Mobile Home Estates
Globe, AZ –

1979-86 **Treasurer, Founding Member, Board of Directors**
Clinica Adlelante, El Mirage, AZ, U.S.P.H.S.
National Health Service Corp. Site,

1976 – 78 **President, Health Education Laison Project, Inc.**
National Foundation of the Physicians
National Housestaff Association,

1975 – 78 **Secretary, Cook County Hospital**

Housestaff Association,
 1976 – 78 **Vice President, Physicians National Housestaff Association**

1968 – 69 **Chairperson, Antioch College
 Community Council,**

1976 – 78 **Medical Care Review Committee
 Cook County Hospital,**

1977 – 88 **Medical Audit Committee,
 Cook County Hospital,**

1973 – 74 **President’s Task Force On Human Subjects Research
 Cincinnati General Hospital
 Relationships**

1972 – 74 **University Research Council (URC)
 University of Cincinnati,**

1972 – 74 **University Research Council’s (URC)
 Subcommittee on Human Research,
 University of Cincinnati,**

1969 – 70 **Dean’s Advisory Committee On Community Medicine
 University of Cincinnati,**

1978 – 81 **Program Chairperson
 Occupational Health and Safety Section
 American Public Health Association,**

MEMBERSHIPS:

1981 – 86 Society for Occupational & Environmental Health (SOEH),

1978 – 81 National Advisory Committee on Cancer Research,
 American Institute For Community Health,
 American Teachers of Preventive Medicine,

1988 – present Cochise County Medical Society,

1993 – 1998 Steering Committee on Occupational Medicine,
 National Association of Disability Evaluating Physicians,
 Charter Member,

1974 – 78 Physicians National Housestaff Assoc.,

1974 – 78 Founding Member,

	Cook County Hospital Housestaff Association,
1969 – present	Physicians Forum
1965 – 78	Medical Committee For Human Rights,
1972 – 74	Founding Member, Cincinnati Task Force for Occupational Safety & Health,
1974 – 78	Chicago Area Committee for Occupational Safety & Health,

**RESEARCH, REPORTS
AND PUBLICATIONS:**

Tritium surveillance, American Atomic Workers,
Long Term Follow up Study. Consultant, 1979

Asbestos Exposure: A Community Health Hazard Evaluation, Mountain
View Mobile Home Estates, Globe, Arizona; Supported by Arizona Department
of Health Services, 1979 thru 1981

The Effect of Ethanol On the Permeability of The Toad Bladder,
L. Hoffman and R. P. Davis (Technical Work Performed by M. Gray While on
Coop Job from Antioch College).
Presented to the York Academy of Sciences – 12/04/65

The Effect of Ethanol on The Action of Antidiuretic Hormone In The Rat –
A Tested Research Protocol (Unpublished Manuscript, 1965)

The Applicability of Scientific Methods to Social Problems (A Research
Seminar Designed and Directed by M. Gray), Supported by the National Science
Foundation Undergraduate Research Project Grant, 1966

**The Effect of Pulmonary Surfactant on Sodium Transportation in the
Isolated Toad Bladder** (A Potential Bio-Assay for Pulmonaryactant), Done
as an Undergraduate and a Medical Student. This work was supported by
Multiple, Small N.S.F. and N.I.H. from 1972 – 76

The Construction of a Manual Short-Circuit Current Apparatus (Used
For Measuring Sodium Transport Across An Isolated Membrane). Support
By A N.I.H. Summer Research Grant, 1969

**An Automated Photocoupled Voltage Clamp For Measuring Sodium
Transport In The Isolated Toad Bladder,** 1970

Coal Worker’s Pneumoconiosis, Thesis for Pathology,
University of Cincinnati
College of Medicine, 1972

Gasoline Fume Toxicity, Prepared AT the Request Of The “Any Questions?”
Department Of The British Medical Journal, 1973

Sickness Absences Among Automated Containerized Freight Handlers,
British European Airways, London, 1973

Health Effects of Toluene Di-iso-cyanate in Printers and Slitters,
Olodense, Inc.
Bristol, England 10/73

Medical Surveillance For Workers Exposed to Iso-Cyanates,
Kenner Toys,
Cincinnati, Ohio 1974

Lead Exposure In Paint Manufacturers
Sherwin-Williams, Coffeerville,
Kansas, 1977

Menthol Exposure In Pharmaceutical Workers,
Merck, Sharp, and Dohme,
Philadelphia, Pennsylvania

Antibodies to Molds and Satatoxin in Individuals Exposed in Water-Damaged Buildings Aristo Vojdani, Jack Thrasher, Roberta Madison, Michael Gray, Andrew Campbell, Gunner Heuser
Archives of Environmental Health, 2004

Mixed Mold Exposure: Immunological Changes in Humans with Exposure in Water Damaged Buildings
Michael Gray, Jack Thrasher, B. Robert Crago, Roberta Madison, Linda Arnold, Andrew Campbell, Aristo Vojdani, Archives of Environmental Health, 2004

Neurological antibodies and Neurophysiology Abnormalities In Patients Exposed to Moulds
Andrew Campbell, Jack Thrasher, Roberta Madison, Aristo Vojdani, Michael R. Gray, Archives of Environmental Health 2004

On the Neuropsychological and Electro Cortical Impacts of Mixed Mold Exposure
B. Robert Crago, Lonnie Nelson, Marilyn Davis, Jack Thrasher, Michael Gray
Archives of Environmental Health, 2004

Mold and Mycotoxins: Effects on the Neurological and Immune System in Humans
Sick Building Syndrome – Advances in Applied Microbiology Vol. 55
Andrew W. Campbell, Jack D. Thrasher, Michael R. Gray, and Aristo Vojdani
Elsevier Inc. 2004

Reye’s-Like Syndrome in a Newborn Following Exposure to A Mold Infested Home
Michael Gray, Jack Thrasher, Robert Crago
Unpublished Manuscript, 2003

**PRESENTATIONS:
(Partial Listing)**

**Recognition of Occupational Disease By Primary Care Practitioners
The State of Education and Training Programs Presented 10/18/78**

American Public Health Association,
Los Angeles, California

Molds, Mycotoxins and Human Health
Grand Rounds Presentation
Tucson Medical Center
Tucson, AZ Feb 2002

Molds, Mycotoxins and Human Health
International conference on Bioterrorism
American Environmental Health Foundation
St. Louis, MI May 2002

Indoor Air Quality
Indoor Air Quality
American Environmental Health Foundation
St. Louis, MI May 2002

Molds, Mycotoxins and Human Health
American Public Health Association's 130th Annual Meeting and Exposition
Philadelphia, Pennsylvania, (November 9-13, 2002)

Molds, Mycotoxins and Human Health
5th International Bioaerosol Conference
Fungal Research Group Foundation, Inc.
Saratoga Springs, New York September 9, 2003.

A Water-Damages Home and Health of Occupants: A Case Study
Hindawi Publishing Corporation
Journal of Environmental and Public Health
Volume 2012, Article ID 312836, 10 pages
Doi: 10.1155/2012/312836

TEXTS:

Materials Prepared for Publication by NIOSH and
HRA Under Contract # HRA 232-78-1091

The Occupational and Environmental History

Hazards to Hospital Workers

Asbestos

Chemical Carcinogenesis

Occupational Stress the Hidden Hazard

Hazards to Women in the Workplace

Worker's Compensation

Reproductive Hazards

Hazards to Agriculture Workers

Occupational Dermatoses

Organic Solvents

Hazards of Radiation at Work and in the Environment

Community Air Pollution

Occupational Air Respiratory Disease

Copper Productions: Process and Attendant Hazards

NOTE: The above materials were translated into Spanish in 1983 by the PAN American Health Organization. The monograph on asbestos was adopted by the PAN American Health Organization (PAHO) as its official position on asbestos

Michael R. Gray M.D., M.P.H., C.I.M.E.

Date



November 1st, 2012

Linda Arnold
Progressive Healthcare Group
400 South Ocotillo Ave.
Benson, AZ 85602

Dear Mrs. Arnold,

This letter is to extend our support in response to the RFP for the Unconnected Providers Program Grant issued by the Arizona Strategic Enterprise Technology Office (ASET). We fully appreciate the efforts Progressive Healthcare has made towards supporting Health Information Exchange not only in the Benson community but at the statewide level.

Since 2006 when Progressive Healthcare along with Benson Hospital and San Pedro Family Care was awarded one of first GITA grants to promote EMR adoption and the beginnings of HIE connectivity, you have been actively involved in a collaborative effort to bring HIE capabilities and other healthcare technology solutions to the healthcare practitioners in our community for the benefit of the patients who live and receive services here. We are excited to be working with you on the Direct Demonstration Project for exchanging CCD/CDA documents and other healthcare information and hope that, through this grant, you can begin exchanging information with us through the HINAz Project. As you know we are a phase 1 pilot hospital for the HINAz Project and are actively sending data to the exchange, we look forward to adding Progressive Healthcare into the HINAz HIE to further expand the delivery of technology solutions to the Benson healthcare community.

We have been very appreciative of the support, team work and progress that we have made with your organization and physicians to make these projects become a reality.

Yours sincerely,

Ron McKinnon
CEO

November, 15 2012

To whom it may concern,

Thank you for your interest in an interface between SOAPware and the HINAZ. I have forwarded the quote for the cost of accomplishing your requests with this project.

I feel confident that after the initial conference calls between Progressive Healthcare Group, the HINAZ, MTS Technologies and our SOAPware team, that we have a clear understanding of the goals of this interface project; Current: unidirectional inbound to SOAPware - Future: Bidirectional In/Out of SOAPware. We are confident that this project is technically possible and look forward to the challenge. As always the technical support team at SOAPware is committed to providing our customers with the best possible solution to all their EHR needs.

Good luck with your Grant application and we await your decision to proceed with the project.

Best Regards,

Terry Criner

Product Interface Manager

SOAPware, Inc.

SOAPware, Inc.
4220 N. Crossover Rd.
Fayetteville, AR 72703
36.127996,-94.118264

T. (800) 455-7627
F. (866) 237-9073
www.soapware.com



SOAPware

4220 N. Crossover Rd. • Fayetteville, AR 72703

Terms	Date	Tracking #
Quote	11/9/2012	6459

Name / Address
Arnold, Linda Progressive Healthcare Group P.O. Box 1819 300 S. Ocotillo Benson, AZ 85602

Rep

Item	Description	Qty	Rate	Monthly Fee	Total
HL7 Setup	<p>One-time HL7 Lab Interface Setup Fee, Please call SW support at 800-455-7627 to schedule a set up appointment.</p> <p>LAB VENDORS: PLEASE NOTE CUSTOMER'S NAME AND ACCOUNT NUMBER ON PURCHASE ORDER AND/OR CHECK.</p> <p>End User: Progressive Healthcare Group 300 S. Ocotillo Benson, AZ 85602</p> <p>Acct:5205869111</p> <p>(Lab, Radiology, Transcription)</p>	3	1,500.00		4,500.00
Total					\$4,500.00

Exhibit 5.1

Health Information Network of Arizona

Physician* Subscription Premiums

	Monthly	Quarterly	Annually
Cost/Physician if paid:	\$20.00	\$50.00	\$150.00

All payments to be in advance, either annual or quarterly

No credit cards

Available Group Discounts:

10-25 Physicians	10%
25-100 Physicians	20%
100+ Physicians	30%
250+ Physicians	40%
500+ Physicians	50%

Examples:

1. Solo physician pays in advance = \$150/YR
2. Group of 3 physicians pays quarterly = 3 x \$50 x 4 payments = \$600/YR
3. Group of 30 physicians pays in advance = 30 x \$150 - 20% = \$3600/YR

* Physician is any non-hospital based Doctor of Medicine, Osteopathy, Dental Surgery or Dental Medicine, Podiatric Medicine, Optometry or Chiropractor.

Note: Hospital Based Physician subscriptions are included in Hospital Subscription Premiums. A Hospital Based Physician is any of the above described providers who bills 90% or more of their covered professional charges in either an inpatient (POS 21) or emergency room (POS 23) of a hospital.

If a clinic opts for the EHR-lite, there will be an additional charge of \$600.00 per year per physician, with volume discounts TO BE CLARIFIED

If a clinic opts to integrate their certified EHR into the exchange, there will be a one time charge of \$4,500