Lighthouse Institute | Product Brief: *Mosaic*

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Chestnut Health System's research division is called Lighthouse Institute (LI). LI has 110 staff doing approximately $20 million dollars of research, program evaluation and training related to substance use, mental health, primary care, and legal setting prevention, linkage, treatment, and recovery support – making it one of the largest such externally funded groups located in an integrated care community-based agency. Chestnut's LI extensively uses technology to support screening, assessment, clinical decision-making, treatment, recovery and research.   Since 1998, its flagship technical product has been the Global Apprisal of Individual Needs (GAIN) Assessment Building System (GAIN ABS). Starting out as a PC platform, this product shifted to being cloud-based in 2008 and has gone through multiple iterations to comply with changing privacy and security standard, operating systems, diversity of screen sizes, breadth of languages being use and most recently to provide disaster recovery as a service (DRaaS) to guard against data ransom and blackmail by hackers. Due to a greatly increased range of services, the next iteration of GAIN ABS is being renamed Mosaic. In testing now, the next generation will be released in 2025.

Background

The Global Appraisal of Individual Needs (GAIN) is a set of evidence-based assessment tools and related software (GAIN ABS) used primarily in the fields of substance use and mental health. These tools help clinicians with diagnosis, treatment planning, and monitoring progress. Developed in 1993, the GAIN provides a comprehensive biopsychosocial evaluation, covering various aspects of an individual's life, including substance use, mental health, physical health, and social functioning. In 1998 GAIN ABS was incorporated into most of LI's research studies and then modified to support the Center for Substance Abuse Treatment's (CSAT) adolescent treatment and drug treatment portfolios. In 2003, it was further expanded to support the Rockefeller Foundation's Reclaiming Futures projects and the public in general. Today the latter are most of its users.

Created in 2003, the GAIN Coordinating Center (GCC) supports the implementation of the GAIN; this includes support of several Lighthouse Institute research projects and individual agencies across a variety of settings variety of settings (behavioral health, health care, schools, justice systems, etc.) as well as multiple multisite projects, large county, state, Tribal projects and federal agencies. Collectively, GCC services are used by over 11,000 staff from over 5,500 administrative units, across 65 states/provinces/territories in the US/Canada and a total 17 countries (Australia, Belgium, Brazil, Canada, China, Great Britain, India, Iran, Japan, Malaysia, Mexico, Pakistan, South Africa, South Korea, Spain, Portugal, US).

Created in 2008 and updated several times, the current GAIN ABS software (version 4.65.0.0) is a HIPAA/HITECH compliant cloud application with disaster recovery as a service (DRaaS) that allows for computer assisted administration, immediate generation of individual level reports to support clinical decision making related to diagnosis, treatment planning and level of care placement

(including recovery support), data export and subsequent generation of program level reports and data aggregation. Modifications to GAIN ABS software are made as clinical guidelines change (e.g., DSM-IV to DSM 5, ASAM PPC2 to 3 to 4), as we also continue to improve our products and services and to keep up with changes to software or security threats, operating systems, screen options and the languages of our user base.

Purpose of the next major update, named Mosaic

There are many service systems individuals must navigate in our day-to-day lives including school, work, behavioral health, health care, justice systems, etc. All agencies within these systems are required to support the health, wellbeing and safety of individuals under their care by either providing high quality services directly or referring to and working with other systems. These agencies must also be responsive to local, state and federal laws, insurance, accreditation and funding requirements, while seeking to find, adopt, and implement best practices that are most likely to succeed and evaluate their success.   Several research and federal projects also want more flexible screeners to be more easily accessible by individuals, parents, staff and providers (e.g., behavioral health treatment, school assistance, primary care, probation). While our standard GAIN products are widely in use, we have an increasing number of customers asking us to create customized measures and to have the ability to modify their local instruments or reports. Virtually all the service providers we work with are also required to collect substantial administrative information before, during or after client encounters which can take away time otherwise spent providing services. Also, supervisors, managers, administrators and evaluators need to analyze, review, and understand all available data to provide staff level feedback for supervision, program evaluation and/or program development. Administratively this includes meeting reporting requirements and making business decisions. Electronic systems are needed that support as many of these activities as possible with the least amount of time and money devoted to them, allowing individuals at all levels to focus on meeting the client where they are and meeting their needs. A new web-based application with expanded capabilities was needed to meet the needs of the system, agency, provider, and individual level. Because it will do so much more than GAIN ABS, we have changed the name of this latest version of our product to Mosaic.

Supporting Systems of Service in Indian Country

We recognize the essential role of Rod Robinson and the Bureau of Indian Affairs (BIA) in providing the opportunity and initial financial support for the development of Mosaic as part of the Pathways to Wellness Recidivism Reduction Initiative (Contract #140A1624F0028) and the 11 participating Tribes. The Tribes have many of the issues discussed above (including the desire to collaborate across justice, behavioral/ physical health care, recovery support, and social work systems), are motivated and involved in the development of the current update and have been the first round of testers for Mosaic. In Indian country, these features are particularly relevant due to lack of existing, useful electronic systems, interoperability of those systems, and as is often the case in rural or remote areas, the difficulty providing continuity of care due to distance and number of providers.

Features

We are using our work in Indian country as a springboard to expand the features of Mosaic for use in any system of service. Mosaic evokes imagery of many diverse elements coming together to form a complete picture. In a similar way, individuals, service providers, and researchers use Mosaic to work together to create systems of care that support an individual's whole health and wellness.   The hallmarks of Mosaic are *customizability* and *flexibility*. Mosaic can be used in any part of a human services system including case managers, service and treatment providers, justice systems, supervisors, administrators, and funders. Mosaic will support activities including screening, case planning, referral, assessment, diagnosis, discharge planning, aftercare and recovery support, outcome monitoring, continuous quality improvement and program evaluation. Mosaic features include:

- **Modular Library**: Mosaic contains a library of data collection modules (a collection of related questions or data elements).
- **Collect client information** using existing modules in the library such as demographics and locator information.
- **Conduct interviews** (administered and self-report) using collections of existing evidence-based question sets (modules) in the library. All GAIN instruments are supported as well as other evidence-based screeners and assessments.
- **Create interviews and Reports** A flexible user interface for non-software project staff who can be trained to create new users, create and edit existing modules, and to create new interviews by selecting modules of interest from the library or creating new modules to add to the library.
- **Generate dynamic client-level narrative reports** based on the module's report text and data collected by each module in the library.
- **Make and manage referrals** to services/interventions by
    - building a provider directory containing providers you work with the most.
    - creating electronic releases of information (ROI) with signatures.
    - creating a referral and sending it and the ROI to any provider in your directory and get notified when referral accepted.
    - allowing referred providers to accept referral and log into Pathways and see client data governed by ROI.
    - collaborate on ongoing client care through the ROI.
- **Document client activities** using form modules in the library including
    - service utilization (dates of service, types of services, level of care, disposition and discharge).
    - information from arrest records (dates, charges, etc.).
- **Create client schedules** for future scheduled activities such as services and interventions, follow-up assessments, and get reminders for them.
- **Develop service/case management plans** including creating action plans, documenting goals, and adding case notes in real time.
- **View data dashboards,** management and aggregate client reports based on data from any module.
- **Use electronic data use agreements** with electronic signatures.

- **Export data** from any module to Excel or SPSS on demand.
  - Agency staff can export identifiable data.
  - Researchers can export de-identified data.
- **Support for Court Systems** such as documenting civil, family and criminal court proceedings, hearings, sentencing, court calendar, fines and restitution, rap sheets, document upload, etc.
- **Support for Clients** by having a client/participant portal to see results, appointments, service goals, etc.
- **Billing** Create billing codes for behavioral health services.
- **Supervision** Support case plan supervision reviews and audit proofing.
- **Helpful Resources** Make available resources such as tutorials, help documents, codebooks, videos, training, etc.
- **Multi-language support.**
- **Integration** with other internal and external data systems (e.g., Tribal court case management systems, electronic health records systems).

Benefits

Benefits of service agencies using Mosaic include:
- Flexibility to use any standard module or interview or dynamically create your own. No more paying exorbitant after-purchase customization fees.
- Support continuity of care by creating electronic Releases of Information and referrals. Both providers can securely share client data and collaborate on services. HIPAA and HITECH compliant information sharing.
- Editable narrative client summary reports are built from client interviews and service providers information shows areas of strengths, increased risk, and diagnostic impressions and are used to kick-start service and treatment plans.
- Supervisors can review service/treatment plans of staff and make proactive case review recommendations.
- Documentation not meeting accreditation audit requirements are flagged for supervisor or administrator review.
- Dashboard that graphically summarizes all or slices of client, staff and administrative data allowing for at-a-glance decision making, program management and program evaluation.
- Supports the standardization of data collection and workflow of your choice by team, provider type, or agency.
- Integration and data sharing with other electronic systems using HL7 FHIR protocols.