ESRD Network 14

Supporting Quality Care
What is an HIE

- **HIE Type**
  - National
  - State
  - Region
  - Community

- **HIE Goal**
  - Share health information
  - Better patient outcomes
  - Lower costs
How do HIEs support Patient Care

- Community Data Manager
- Connecting health care systems
- Comprehensive patient records
- Real-time access
How do HIEs operate in Texas?

- Greater Houston HEALTHCONNECT (GHH)
- Healthcare Access San Antonio (HASA)
- Integrated Care Collaboration (ICC)
- PHIX (formerly known as Paso del Norte HIE)
- Rio Grande Valley HIE (RGV HIE)
Providing a better form of communication to view, manage, and share health information.

Transform your access to vital patient information.
Who We Are

The Rio Grande Valley Health Information Exchange (RGV HIE) is a 501(c)3 nonprofit organization dedicated to facilitating the efficient exchange of health information in order to improve the quality of patient care in South Texas. We work with patients, physicians, hospitals, and healthcare facilities to ensure that critical health information is communicated in a consistent and secure manner.

Mission & Vision

• In collaboration with community stakeholders, provide a comprehensive system for the secure exchange of health information to improve communication and patient care.

• Become the Trusted Leader in secured patient centric Health Information Exchange in the Rio Grande Valley.

• Is a nonprofit organization 501 c3.
• Serves South Texas.
• Is 1 of 5 HIE programs in Texas
Vision:
Trusted Leader of Data exchange for community
"Data Steward"

Core competency: service to access, store, retrieve patient data for data exchange

Technical architecture “Scalable” & “Flexible” & “Versatile” to meet needs of community
RGV HIE platform software: EMPI | CDR | Consent Management | Secure Cloud services

- Practice Partners Centricity EMR
- eMDs
- Greenway Health
- eClinicalWorks
- MEDITECH
- MicroMD
- ComputerRx
- ZOLL
- PioneerRx
- Cerner
- NEXTGEN Source
- athenahealth

- SQL Enterprise DataWarehouse
- Mirth Integration Engine
- XDS.B Repository
- Barracuda Web Access Firewall

- Future Analytics Dashboard
- Standard Report Delivery
- EMS APP/Dashboard
- Hospital Notification

- Access Through Standard Portal
- Connect to any other HIE
- Alien Vault Intrusion Device
- Use API’s to create custom mobile and Web Apps

Access Using API
Connections Update

Participating Providers
Search Our Database
<table>
<thead>
<tr>
<th>Participant Name</th>
<th>Participant Type</th>
<th>City</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albert Smith, MD</td>
<td>Physician Practice</td>
<td>Raymondville</td>
<td>Connected</td>
</tr>
<tr>
<td>ALTBA, PA (Dr. Luis Gonzalez)</td>
<td>Physician Practice</td>
<td>Harlingen</td>
<td>Connected</td>
</tr>
<tr>
<td>Alton Health Clinic</td>
<td>Physician Practice</td>
<td>Alton</td>
<td>Connected</td>
</tr>
<tr>
<td>Brownsville Kiddie Health Center (Dr. Carmen Rocco)</td>
<td>Pediatrician</td>
<td>Brownsville</td>
<td>Connected</td>
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<tr>
<td>Dr. Jose A. Cobos - Ortho Care</td>
<td>Physician Practice</td>
<td>Harlingen</td>
<td>Connected</td>
</tr>
<tr>
<td>Edinburg Children’s Hospital</td>
<td>Hospital</td>
<td>Edinburg</td>
<td>Connected</td>
</tr>
<tr>
<td>Edinburg Regional Hospital</td>
<td>Hospital</td>
<td>Edinburg</td>
<td>Connected</td>
</tr>
<tr>
<td>Harlingen Family Night Clinic</td>
<td>Physician Practice</td>
<td>Harlingen</td>
<td>Connected</td>
</tr>
<tr>
<td>Harlingen Medical Center</td>
<td>Hospital</td>
<td>Harlingen</td>
<td>Connected</td>
</tr>
<tr>
<td>HMC RGV Physicians Group Dba South Heart Clinic</td>
<td>Physician Practice</td>
<td>Harlingen</td>
<td>Connected</td>
</tr>
<tr>
<td>HMC RGV Physicians Group Dba South Heart Clinic</td>
<td>Physician Practice</td>
<td>Weslaco</td>
<td>Connected</td>
</tr>
<tr>
<td>La Joya Neighborhood Doctor, P.A.</td>
<td>Physician Practice</td>
<td>Mission</td>
<td>Connected</td>
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<td>Los Fresnos EMS</td>
<td>EMS</td>
<td>Los Fresnos</td>
<td>Connected</td>
</tr>
<tr>
<td>McAllen Heart Hospital</td>
<td>Hospital</td>
<td>McAllen</td>
<td>Connected</td>
</tr>
</tbody>
</table>

Complete list on website: [http://rgvhi.org/providers/](http://rgvhi.org/providers/)
1. Cerner (Bi-directional using IHE and direct feed)
2. Evident (Direct feed)
3. Athena Health (Bi-directional using IHE)
4. GE Centricity (Bi-directional using IHE and direct feed)
5. Greenway Intergy (Bi-directional using IHE)
6. Greenway Prime Suite (Bi-directional using IHE)
7. Nextgen (Bi-directional using IHE)
8. eCW (Bi-directional using IHE)
9. Practice Fusion (direct feed)
10. Practice Partner (direct feed)
11. eMD (direct feed)
12. Meditech (direct feed)
13. MicroMD (direct feed)
14. ChartPerfect (direct feed)
15. ESO (direct feed, EMS run reports)
16. ARConcepts (direct feed, EMS run reports)
## HIE Activity Report

<table>
<thead>
<tr>
<th>Service Provider</th>
<th>Harlingen Family Night Clinic</th>
<th>La Joya Neighborhood</th>
<th>RGSC</th>
<th>Behavioral clinic of South Texas</th>
<th>STM Primary Care clinic</th>
<th>South Texas Hospital</th>
<th>Valley Childrens Clinic</th>
<th>HMC</th>
<th>PrimeHealth Care management</th>
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<tbody>
<tr>
<td>San Benito Medical Center</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
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<tr>
<td>Harlingen Family Night Clinic</td>
<td>8.48%</td>
<td>0.19%</td>
<td>3.40%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.14%</td>
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<td>13.49%</td>
<td>17.08%</td>
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<td>NCDV</td>
<td>0.00%</td>
<td>0.05%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.61%</td>
<td>0.04%</td>
<td>30.50%</td>
<td>2.06%</td>
<td>0.72%</td>
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<td>STHS</td>
<td>0.83%</td>
<td>8.60%</td>
<td>6.32%</td>
<td>25.56%</td>
<td>17.79%</td>
<td>0.91%</td>
<td>0.00%</td>
<td>0.08%</td>
<td>0.14%</td>
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<tr>
<td>Valley Childrens Clinic</td>
<td>51.35%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.03%</td>
<td>1.52%</td>
<td>0.07%</td>
<td></td>
<td></td>
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</table>
HIE Texas update

5 Regional HIEs

RGV HIE signed agreement to connect with HASA
--ready for Hurricane Season
Community Provider Portal

Provider portal to access Patient Health records containing all the available information about a patient's medical history and treatment from healthcare providers across the entire care continuum.

Care Alerts Portal

Our Care Alerts Portal gives you quick and direct access to important information, including admission, discharge, and transfer notifications.

Central Document Repository

The Central Data Repository includes information from all points of care. As the patient receives care, the results are automatically updated and stored as part of the patient's health record.
## Snow, Jon

**ID:** 594144b1c0a4a26815156baf
**Date of Birth:** Jan 1, 1990

### Filter results:
- **From:**
- **To:**
- **Author Role:**
- **Author Institution:**
- **Practice Setting:**

### Medical Documents

<table>
<thead>
<tr>
<th>Creation Date</th>
<th>Title</th>
<th>Author</th>
<th>Author Role</th>
<th>Author Institution</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun 29, 2017, 11:37 PM</td>
<td>Medical Summary</td>
<td>Willis, Sam, Multi</td>
<td></td>
<td></td>
<td>Summarization of Episode Note</td>
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<td>Jun 29, 2017, 10:58 AM</td>
<td>General Medicine Referral Note</td>
<td>Dollin, Robert</td>
<td></td>
<td>Hospital A</td>
<td>General Medicine Referral Note</td>
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<tr>
<td>Jun 14, 2017, 9:40 AM</td>
<td>Medical Summary</td>
<td>Willis, Sam, Multi</td>
<td></td>
<td></td>
<td>Summarization of Episode Note</td>
</tr>
<tr>
<td>Sep 9, 2010, 3:15 PM</td>
<td>CCDA1</td>
<td>Murad, Doaa, Doctor</td>
<td></td>
<td>Forscare Test Clinic</td>
<td>Summarization of Episode Note</td>
</tr>
</tbody>
</table>
The Longitudinal Patient Record

1. Patient visits PCP. Encounter information is sent to HIE.

2. Patient enters hospital. Hospital retrieves clinical information from HIE integrating directly into the information system or through provider portal.

3. Patient is discharged from hospital and clinical information from the care event is sent to HIE.

4. Patient sees specialist. Specialist accesses patient record from the HIE through provider portal or directly through EMR. New information from care event is sent back to the HIE from the Specialist’s EMR.

5. The HIE recognizes changes to the patient record, notifies PCP, then routes information back into PCP’s EMR.

The HIE has provided an accurate and timely longitudinal patient record to the treating physician at each event. Clinical information follows the patient through the system.

Patient’s longitudinal patient record is accessible from the HIE, a common resource, by each treating physician. Without this, information is housed only in disparate systems providing barriers to access when needed most... at the point of care.
Use Case: Payor Attributed Population Hospital Discharge Alert

Alerts Dashboard

Care Alert Portal

HL7 ADT

Patient Roster

Notification

Insurance

PCP or Care Coordinator
New Service

• Value provided by offloading development and delivering the industry’s best data cleansing functionality

• Value provided by delivering more accurate data with better standardization, normalization and appended code sets to HIE members
Fragmented Clinical Data

High-cost patients see many providers annually with data spread across care settings

Unified, Normalized Clinical Data Ready for Analytics

Office Visit, Specialist Referral, Ambulatory Center, Hospital Stay, Post-Acute Care

McKesson, Allscripts, Epic, Cerner, MEDITECH

DiameterHealth.com
Challenging Clinical Data

Data Loss Due to Complex, Heterogeneous Point-of-Care Data Collection

Valid Syntax ➔ Structured Data ➔ Proper Coding

- Lab Results
- Medications
- Diagnoses
- Procedures
- Vital Signs
- Allergies
- Plan of Care
- Poor Standards Implementation
- Unstructured Text
- Non-Standard Terminology
- Semantic Conflicts
- Omitted Meta-Data
- Misclassified Information

Diameter Health
Strategic Roadmap
Strategic Services Roadmap

1. Image exchange
2. Add other documents (discharge summaries, diagnostic reports, etc)
3. Data warehouse
Community Partnerships
# Community Partnerships

<table>
<thead>
<tr>
<th>Partnership</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Methodist Healthcare Ministries of South Texas, Inc.</td>
<td>Funds available to connect regional Providers to the HIE to promote health information exchange in the RGV.</td>
</tr>
<tr>
<td>Unidos Contra la Diabetes</td>
<td>Community partnership that was formed in 2014 to address the growing epidemic of diabetes in the Rio Grande Valley of Texas</td>
</tr>
<tr>
<td>UTHealth</td>
<td>Delivery System Reform Incentive Payment (DSRIP) program</td>
</tr>
<tr>
<td>UT Health San Antonio</td>
<td>Delivery System Reform Incentive Payment (DSRIP) program</td>
</tr>
</tbody>
</table>
911 EMS Service
TRAC 911 EMS Project

- To enhance communication between EMS 911 providers and hospital Emergency Departments
- Run reports from ePCRs will be available via the HIE Provider Portal
- To provide capability for EMS 911 providers to access patient information from HIE Provider Portal
EMS & Hospital connected to HIE

Run reports sent to HIE upon signoff in ePCR system.

Connected Hospital Documents: CCD, Discharge summary, etc. sent to HIE upon sign off in Hospital system.

RGV HIE Provider Portal
ALERT – at the scene & enroute

Display patient Information on hospital dashboard at ED to alert and share incoming patient information to assist in time-sensitive therapies.
### ER Queue (19)

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Pregnant</th>
<th>Code</th>
</tr>
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<tbody>
<tr>
<td>19 - 29</td>
<td>Male</td>
<td></td>
<td>Stemi</td>
</tr>
<tr>
<td>19 - 29</td>
<td>Female</td>
<td>Yes: 15 weeks</td>
<td>Stroke</td>
</tr>
<tr>
<td>0 - 5</td>
<td>Female</td>
<td>Yes: 15 weeks</td>
<td>Stroke</td>
</tr>
<tr>
<td>40 - 49</td>
<td>Female</td>
<td>Yes: 14 weeks</td>
<td>Stroke</td>
</tr>
<tr>
<td>30 - 39</td>
<td>Female</td>
<td>Yes: 12 weeks</td>
<td>Stroke</td>
</tr>
<tr>
<td>30 - 39</td>
<td>Female</td>
<td>Yes: 10 weeks</td>
<td>Stroke</td>
</tr>
<tr>
<td>40 - 49</td>
<td>Female</td>
<td>No: weeks</td>
<td>Cardiac Arrest</td>
</tr>
<tr>
<td>19 - 29</td>
<td>Female</td>
<td>Yes: 20 weeks</td>
<td>Cardiac Arrest</td>
</tr>
</tbody>
</table>

### Patient Information

**Code:** Stroke

#### Vitals

<table>
<thead>
<tr>
<th>BP</th>
<th>HR</th>
<th>RR</th>
<th>GCS</th>
<th>RTS</th>
</tr>
</thead>
</table>

#### Demographics

Name: (last name n/a), (first name n/a)

DOB: 

Age: 

#### Images
Andrew Lombardo, Executive Director
Andrew@rgvhie.org

Genaro Garza, Director of IT
Genaro@rgvhie.org

Billy Cortez, Integration Specialist
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Peggy Lee, Clinical Analyst
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Alicia Grimaldo, Application Support
Alicia@rgvhie.org

Janie Martinez, Project Manager
Janie@rgvhie.org