JH US Family Health Plan

- 1981: US Public Health Service Hospitals designated to provide health care for uniformed services beneficiaries
- 1993: USTFs mandated to provide services through a fully at-risk managed health care plan
- 1996: Congress designates that the USTFs provide the TRICARE Prime benefit as “TRICARE Designated Providers” making them a permanent component of the MHS
- 1998: USFHP implements the TRICARE Prime benefit
USFHP Alliance

Pacific Medical Centers
Serving the Puget Sound area of Washington State
1-888-958-7347

Brighton Marine Health Center
Serving Massachusetts, including Cape Cod, Rhode Island and northern Connecticut
1-800-818-8589

Saint Vincent Catholic Medical Centers
Serving parts of New York, all of New Jersey, eastern Pennsylvania and southern Connecticut
1-800-241-4846

Martin’s Point Health Care
Serving Maine, Vermont, New Hampshire and northeastern New York
1-888-241-4556

Johns Hopkins Medicine
Serving central Maryland, Washington DC and parts of Pennsylvania, Virginia and West Virginia
1-800-801-9322

CHRISTUS Health
Serving southeast Texas and southwest Louisiana
1-800-678-7347
US Family Health Plan

- Fiscal Year 1997 National Defense Authorization Act  “The health care delivery system of the uniformed services shall include the designated providers.”
JH Enrollment

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Duty Family/Members</td>
<td>11,119</td>
</tr>
<tr>
<td>&lt;65 Retirees</td>
<td>20,799</td>
</tr>
<tr>
<td>65+ Retirees</td>
<td>8,279</td>
</tr>
<tr>
<td>Total</td>
<td>40,197</td>
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</tbody>
</table>
JH Privileged to Serve Since 1981...
Johns Hopkins USFHP Network
### 2012 Accreditation Scoring

<table>
<thead>
<tr>
<th>Standards</th>
<th>JH USFHP Points</th>
<th>Possible Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>53.0752</td>
<td>54.14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEDIS Effectiveness of Care Measures Score</th>
<th>28.6025</th>
<th>32.86</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>CAHPS Measures Score</th>
<th>13.0000</th>
<th>13.00</th>
</tr>
</thead>
</table>

| Total & Status Level                     | 94.6777 | Excellent | 100.00 |

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**JH Member Health & Experience**

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**MARYLAND**
Kaiser Foundation Health Plan of the Mid-Atlantic States

<table>
<thead>
<tr>
<th>Health Plan Name</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Johns Hopkins US Family Health Plan</td>
<td>86</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance Companies</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigna Health and Life Insurance</td>
<td>88</td>
</tr>
<tr>
<td>Connecticut General Life Insurance</td>
<td>83</td>
</tr>
<tr>
<td>Employer Health Programs</td>
<td>82</td>
</tr>
<tr>
<td>Medicare Program</td>
<td>82</td>
</tr>
<tr>
<td>Aetna Health (Pennsylvania)</td>
<td>81</td>
</tr>
<tr>
<td>CareFirst Bluechoice</td>
<td>81</td>
</tr>
<tr>
<td>Optimum Choice</td>
<td>81</td>
</tr>
<tr>
<td>UnitedHealthcare of the Mid-Atlantic</td>
<td>67</td>
</tr>
<tr>
<td>Coventry Health Care of Delaware</td>
<td>64</td>
</tr>
<tr>
<td>Cigna Health and Life Insurance</td>
<td>57</td>
</tr>
</tbody>
</table>

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**Consumer Reports**

"Best Products of the Year"

Top Picks & Great Buys
USFHP Alliance Member Experience
Among the Highest in America

Overall Satisfaction


Comparison to national averages for member satisfaction with non-PPO plans (all percentages = proportion highly satisfied, rating plan 8 through 10 on a scale from 0 to 10, where 10 is the best possible plan). 2006–2012 surveys conducted by NCQA Certified vendor.
POPULATION HEALTH
AND THE TECHNOLOGY TO SUPPORT IT
Johns Hopkins Medicine has all the necessary components to achieve a high-performance integrated delivery system.
A Model for an Accountable Care System: Provider and Member Engagement

- Providers: Adherence to evidence based, guideline driven care
- Collaboration: Evidence-based outcomes based on conditions
- Members: Motivation and engagement that facilitates self-management of condition

USFHP as Payer
Achieving the Quadruple Aim: A Population Health Approach

- Identify and target beneficiaries in need of services
- Assess Needs and Goals of beneficiary
- Develop Patient Centered Action Plan
- Intervene and carry out Action Plan with Patient
How do we identify and target those in need of services?
Variables in the Predictive Model

**Hospitalization in 2011**

- **Demographic**
  - Age
  - Sex
  - Zip Code
  - Region
  - JHHC Line of Business

- **Total Costs**

- **Utilization**
  - Primary Specialty
  - Hospital Admits

- **Co-morbid Conditions**
  - Elevated lab values
  - Diabetes complications
  - Hyperlipidemia
  - CAD
  - HF
  - Renal
  - COPD
  - Asthma
  - Depression
  - Substance Use

- **Enrollment lapse**
  - Any
  - # of lapses

- **Pharmacy**
  - Total Count
  - Use of insulin
  - Use of Insulin Pen
  - Lack of claims for supplies
  - Claims for Glucagon
  - Untreated diabetes
  - PPI use

- **ACG Risk Score**
The ACG Predictive Model

• What the ACG-PM does:
  – Grounded in the disease burden or co-morbidity perspective unique to the ACG system
    • Focuses on commonly occurring patterns of morbidity and assessment of all types of medical needs
    • Holistic method has repeatedly proved to have many advantages over comparable case-mix approaches that include limited a set of diseases or episode categories.
  – Builds on facets of the ACG system and several years of intensive research and development at JHU
  – Uses statistical techniques to project the impact of co-morbidity and other factors on an individual’s use of health care resources in a future time period
ACG-PM Outputs

• ACG-PM produces two types of predictive risk indicators:
  – **Probability Score**: represents the likelihood that a member will be among those persons using extraordinary health care resources
    • Scores range from 0 to 1. Score of 0.4 means the individual has a 40 out of 100 chance of being in the high-risk cohort next year
  – Predicted Resource Index: can be readily converted to a predicted dollar amount
    • Scores range from 0 to roughly 40 with a population mean of 1.0.
USFHP Population we serve

Characteristics of high-risk group:
- 46% have 1 or more hospital admissions in 2012

Characteristics of low and moderate risk Group:
- 16% have one admission

65% of all admissions are accounted for by the high risk group
Achieving the Triple Aim: A Population Health Approach

- Identify and target members in need of services
- Assess Needs and Goals of members
- Develop Patient Centered Action Plan
- Intervene and carry out Action Plan with Patient
Case Management and Behavioral Assessment Completed in Database

- Health status
- **Medication Adherence**
- Life-planning Activities
- Cultural and Linguistic needs, preferences and limitations
- ADLs
- Caregiver resources
- Nutrition
- Physical Activity
- Pain
- Stress
- Sleep
- Tobacco Use
- Alcohol Use
- Substance Use
- Emotional Status and Depression
- Domestic violence and neglect
- Cognitive Function
- Patient Activation
The Assessment of Needs

More comprehensive for high-risk patients
~150 questions for high risk patients
~50-60 questions for medium risk
About 20-30 mins.
Multiple assessment methods available, based on patient preference and need/usability
    Mailed, web-based, face-to-face interview in clinic, face-to-face interview in home conducted
Data scanned/direct entered into centralized USFHP database
Achieved high response rates from USFHP members
# Sample Assessment Questions

<table>
<thead>
<tr>
<th>Domain</th>
<th>Medium Risk</th>
<th>High Risk</th>
</tr>
</thead>
</table>
| Depression          | PHQ-2 Over the past two weeks, how often have you been bothered by any of the following problems?  
• Had little interest or pleasure in doing things.  
• Felt own, depressed, or hopeless. | PHQ-8 Over the past two weeks, how often have you been bothered by any of the following problems?  
• Had little interest or pleasure in doing things  
• Felt down, depressed, or hopeless  
• Had trouble falling asleep or staying asleep or sleeping too much |
| Medication Adherence| Morisky 4-item                                                              | Morisky 8-item  
Do you ever forget to take your medicine?  
Are you careless at times about taking your medicine?  
Sometimes if you feel better do you sometimes stop taking your medicine?  
Sometimes if you feel worse when you take the medicine, do you stop taking it?  
If you travel or leave home, do you sometimes forget to bring along your medications?  
Do you ever run out of your medicine? |
| Literacy            | WRAT word list                                                             | WRAT word list                                                             |

68% of the US population reads at a Basic or Below level. The literature shows direct associations between low literacy and poorer health outcomes.
<table>
<thead>
<tr>
<th>GENERAL HEALTH BEHAVIORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSESSMENT DOMAIN</strong></td>
</tr>
<tr>
<td><strong>POSSIBLE INTERVENTIONS</strong></td>
</tr>
<tr>
<td>Weight Management</td>
</tr>
<tr>
<td>BMI = 32.6 (height = 71 inches, weight = 234 lbs)</td>
</tr>
<tr>
<td>Tobacco Use</td>
</tr>
<tr>
<td>Current smoker</td>
</tr>
<tr>
<td>Willing to try to quit</td>
</tr>
<tr>
<td>Alcohol</td>
</tr>
<tr>
<td>Use of alcohol: monthly</td>
</tr>
<tr>
<td># alcoholic drinks on a typical day: X</td>
</tr>
<tr>
<td>Substance Use</td>
</tr>
<tr>
<td>Use of illegal drugs: once or twice</td>
</tr>
<tr>
<td>Use of prescription drugs for non-medical reasons: never</td>
</tr>
<tr>
<td>AUDIT-C score = 7</td>
</tr>
<tr>
<td>History of diagnosis or treatment: yes</td>
</tr>
<tr>
<td>Currently receiving treatment at: yes</td>
</tr>
<tr>
<td>Nutrition</td>
</tr>
<tr>
<td>In past week, eats fast food: 5 times</td>
</tr>
<tr>
<td>Eating per day: 3 meals and 2 snacks</td>
</tr>
<tr>
<td>Skips breakfast and lunch</td>
</tr>
<tr>
<td>Physical Activity per week</td>
</tr>
<tr>
<td>Light activity total (LAT) = 150</td>
</tr>
<tr>
<td>Moderate to vigorous physical activity (MVPA) = 100</td>
</tr>
</tbody>
</table>
Achieving the Quadruple Aim: A Population Health Approach

- Identify and target beneficiaries in need of services
- Assess Needs and Goals of beneficiary
- Develop Patient Centered Action Plan
- Intervene and carry out Action Plan with Patient
Individualized Patient-Centered Care: Specific behavioral and social interventions

Individualized intervention plan triggered by assessments, targeting specific behavior needs.
Each assessment domain has recommended interventions for follow-up.
Meet 2012 NCQA standard for evidence-based tools and approaches to patient counseling and intervention.

Case Management Needs
- Care Coordination
- Case Management
- Assistive/Support Interventions
- Social and Economic Needs

Health Behavior Risk Needs
- Counseling
- Lifestyle modification coaching
- Smoking cessation
- Weight management
- Specialist referrals (addiction, major depression, cardiac rehab, neuro/early dementia)

Disease-specific Self-Care Behavior Needs
- Behavior change counseling
- Health Coaching
- Family Training
- Social and Instrumental support
The primary objective of the Interdisciplinary Team (IDT) will be to establish an Initial Care Plan and to monitor the progress of the JCHiP patients against the plan of care. The IDT schedule will be created by the Case Manager, who will organize patients based on the Case Manager/CHW pair and Primary Care Provider when possible. The schedule will be posted in the JCHiP software and communicated to all team members.
Achieving the Quadruple Aim: A Population Health Approach

- Identify and target beneficiaries in need of services
- Assess Needs and Goals of beneficiary
- Develop Patient Centered Action Plan
- Intervene and carry out Action Plan with Patient
### Table. Factors Impacting Care Delivery and Adherence to Care

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>DATA SOURCE</th>
<th>STRATEGY</th>
<th>MODALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patients’ Capacity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of clear education re: medical conditions</td>
<td>Case studies, EBMC experience, Literature</td>
<td>Care coordination, Education, Simplify treatment, Build capacity, CCC becomes a point of contact</td>
<td>NCM, CCC</td>
</tr>
<tr>
<td>Incomplete understanding of severity of condition or consequences of non-compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of knowledge about health and social service systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health literacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty discerning when to seek care or professional health advice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inability to navigate health and social service systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty overcoming barriers without assistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment complexity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patients’ Attitudes/Beliefs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belief that medical care is not important</td>
<td>Case studies, EBMC experience, ICHABOD</td>
<td>Informal counseling &amp; social support, Organize health buddies</td>
<td>NCM, CCC</td>
</tr>
<tr>
<td>Unwillingness to face severity of health condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mistrust of health system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of medical procedures and side effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of confidence that patient’s actions can improve health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social and Economic Environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>Case studies, EBMC experience</td>
<td>Care coordination, Social stabilization</td>
<td>CCC</td>
</tr>
<tr>
<td>Unstable and/or unsuitable housing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and resource insufficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of social support for healthy behaviors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household members’ engagement in behaviors harmful to patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient-provider communication</td>
<td>Case studies, EBMC experience</td>
<td>Care coordination</td>
<td>NCM, CCC</td>
</tr>
<tr>
<td>Inefficiencies in processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complexity of referral processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate follow-up or discharge planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of medication, copayment, or both</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Integrated, Team-based Primary Care

Integrated Primary Care combines medical and behavioral health services to more fully address the spectrum of problems that patients bring to primary medical care.

- Integrate a new discipline – Behavioral Team – into the Primary Care Team
- Community based health workers extending services into the patients home and neighborhood
- Lift some burden from the primary care team
- Adjust the workflow
What Do Successful PCMH Interventions Have in Common?

• Target high risk patients
• Strong transitional care
• Medication management
• Ongoing assessments and monitoring of patients with chronic conditions
• Focused, streamlined care plans
• Close communication between care managers, patients, primary care doctors, and specialists
• Personal face to face contact between care coordinator and patient
Clinic Based Team: Behavioral Specialist, Case Manager, and Primary Care Physician

Nurse Case Managers embedded in primary care clinics are responsible for

- Initial Assessment and Survey
- Ongoing Self-management support
- Develops and Communicates Care Plan with member and clinic team
Clinic Based Team: Behavioral Specialist, Case Manager, and Primary Care Physician

Primary Care Physician leads each team

- Oversees the care
- Has electronic and periodic in-person interactions with the care team
- Regular appointments with each patient
The Interdisciplinary Team Process

- Clinical EMR
  - Chart/Clinical Notes
  - Patient appointments with PCP

- Care Plan (after 1st session)
  - Assessment Summary
  - Rounding

- Care Plan
  - Care Manager
    - Updates care plan, update notes and follow up tasks in Salesforce

- Salesforce.com
  - Barriers to Care Assessment
  - CM Assessment Summary
  - Transition Guide
  - Non-PCP appointments
In Summary ..
Population Health Approach

- Technology to support our approach
  - Data architecture to join multiple data sources at a patient-centric level (claims, EMR, pharmacy, self-reported surveys and symptoms)
  - Predictive models (sophisticated biostatistics software)
  - Systems that support collection of data that leads to summaries of needs/problems, creates care plan, tracks interventions and coordination amongst team members
  - Outcomes and data reporting (intelligence and decision support)
  - Portal for patients and caregivers (view, write to medical records, communicate with care team)
DISCUSSION, Q&A