UnitedHealthcare White Paper
Patient Centered Care Model

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This White Paper provides an introduction to UnitedHealthcare’s Patient Centered Care Model including Accountable Care Organizations and Health Home Programs for Super-Utilizers.
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Background

The National Academies of Science Institute of Medicine is a national authority and adviser to the federal government on issues of medical care, research, and our national health policy. The Institute publications have become milestones in our nations’ view of progress in our evolving healthcare system: To Err Is Human - Building a Safer Health System, Crossing the Quality Chasm and Best Care at Lower Cost - The Path to Continuously Learning Health Care in America. These three reports ignited the industry and helped launch health reform initiatives over a decade with their simple conclusion – our current “health care” system more closely resembles a ‘sick care’ system. In communities across the nation doctors see patients for scheduled ‘sick visits’ to react to and treat the symptoms of acute illness. The medical clinic operates independently, treating each episode and making decisions with limited information –behavioral health needs are not addressed or are not coordinated and vice versa. Even within a community, episodes of care are managed in isolation without integration of the patient history, medical, behavioral and social support needs. Patients without access to convenient care go to hospital emergency rooms for care. By 2008, Berwick, Nolan and Whittington in their seminal work “The Triple Aim: Care, Health and Costs”, showed that wide gaps continued to exist between what we have, and could have, in individual patient experience, population health outcomes and cost of care. The root of these problems lies in the misaligned business models and incentives for health care stakeholders.

UnitedHealthcare has become recognized as an industry leader in health system transformation as it proactively addresses these challenges in our communities. United took the challenge of the Triple Aim - “better care, better health, and lower costs” – as a call to action and has transformed its entire product, network and clinical strategy to achieve these objectives. In addition to aligned incentives to deliver evidence based care, our technology, tools and processes to manage population health proactively are helping to shift the traditional clinical delivery from “sick care” to a true health care system.

We began our transformation initiatives in 2007 with patient centered medical home – building a more effective primary care system focused on improving quality of care and delivering evidence based care in a team based approach. IBM, a key customer, asked United to measurably improve preventive care and clinical outcomes, piloting a Medical Home model and partnering with the delivery systems. Our collaboration with this pilot group of clinicians enabled United to identify the core tenets of our program to support health care delivery in the community. Healthcare delivery was essentially reactive and transactional – clinic operations were designed around 15 minute visits for individual patients who scheduled sick visits. There was no population view of needs either at the practice or the community level. Primary care practices had an incomplete view of their patient limited only to the care that they delivered. With UnitedHealthcare analytic support and measurement of the population we identified gaps in evidence based care and shared data with medical home practices. United supported clinics with process transformation consulting to help them become certified by the National Committee on Quality Assurance as a patient centered medical home. This was a successful strategy to improve quality outcomes – yet we found a medical home model was not in itself sufficient to fulfill the promise of the Triple Aim – lowering the costs of care and improving patient experience of care. Our population analytics of the total costs of care showed that more than 70 percent of marginal cost improvements come from inpatient and emergency visits –even higher in some vulnerable populations. It became clear that addressing the challenge of the Triple Aim required engagement of all network partners across the continuum of care.

In 2009 UnitedHealthcare created the first payer lead Medicaid ACO -- our Arizona Community Plan leaders met with hospitals and practices in a community wide partnership in Yuma which became known as our Accountable Care Communities program. The focus went beyond a medical home, with a shared community wide goal to lower high rates of hospitalization at a population level. First year results showed increased primary care visits by 21 percent, while lowering admissions by 30 percent and lowering avoidable emergency visits by 16 percent. We had learned how to engage partners in an effective strategy.
to manage care for the general population. We also learned that the real journey had just begun -- patients with the most complex needs -- or super-utilizers - needed different strategies.

Clinical and Business Rationale

UnitedHealthcare is a national managed care organization serving millions of members in diverse populations across commercial, Medicare, Medicaid and Military and Veterans segments. We manage programs covering the full range of clinical risk and complexity of these populations: children, adults and the elderly with clinical needs ranging from healthy, to those with chronic conditions, to fragile and complex patients of all ages. Patients with behavioral health needs and social support needs (including basic food and shelter) are among the most vulnerable and underserved. Our experience shows that behavioral health and social support needs play a major role in health outcomes, yet these needs are often unmet, or uncoordinated with basic medical care. The integration of medical, behavioral and social support at a community level - whole person care - is a key clinical and business imperative for UnitedHealthcare. Whole person care requires the integration of services from multiple provider types, such as behavior health clinicians, primary care physicians, home and community-based services and social service organizations like Meals-on-Wheels. This means fundamentally connecting the continuum of care from hospital treatment to ambulatory services.

Before health reform and the focus on clinical transformation, we relied on ‘disease management’ programs to coach individual patients to manage their specific disease conditions. Quality improvement efforts focused on completing preventive screening, and ongoing management of these common diseases. Diabetes, congestive heart failure, chronic obstructive pulmonary disorder, asthma were all increasing in prevalence. However, UnitedHealthcare saw that the most vulnerable were those with multiple chronic conditions who were seeing multiple doctors for treatment - or seeing none at all. We saw that patients without convenient access to care who were in crisis because of unmanaged chronic conditions present at the emergency room frequently. With processes built around a single condition for a single patient, attention was not on the overall risk of the patient and how multiple conditions should be managed. Patients seen by multiple clinicians needed coordination of care support, not only to ensure safety of medications and treatment but also to help them navigate the complexity of care in different settings.

Analyses of population risk showed distinct groups. In Medicaid, our experience shows that 1.4 percent of the members’ drive 36 percent of total medical costs; in commercial business 5 percent of the members drive 50 percent of the costs, and in Medicare 25 percent of the members’ drive 75 percent of the costs. Our biggest opportunity to be more effective was to focus on serving these patients in a more coordinated way.

By also looking at behavioral health costs and drivers, we see that those patients with behavioral health diagnoses were being admitted to hospital more often - not for lack of attention to behavioral health – but because their chronic medical conditions were not being managed. The opportunity again was to more effectively coordinate care. Research shows that those with a mental illness and substance abuse diagnosis in addition to a chronic condition diagnosis have a three to four fold increase in costs of care. Life expectancy for those with serious mental illness is now 25 years lower than those without mental
illness—primarily as a result of physical health issues that are untreated or undertreated. UnitedHealthcare analyses of patients with **serious and persistent mental illness** show total costs of care in excess of $35,000 as a result of high inpatient and emergency room use—yet many of these patients have not seen a clinician in the last year.

Super-utilizer patients exist in every segment—as showing in the following chart for Medicaid. In the state shown, 2 percent of the population account for 40 percent of the total costs of care of the entire population. Costs for an average member are $2,892, compared to $57,589 for the super-utilizers.

<table>
<thead>
<tr>
<th>Member Segment</th>
<th>Total Segment Count</th>
<th>Super-Utilizer Members</th>
<th>Super-Utilizer Percent</th>
<th>Total Annual $ of Segment</th>
<th>Super-Utilizers Total Annual $</th>
<th>% of Total Overall Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>392,660</td>
<td>1,164</td>
<td>0.3%</td>
<td>$462M</td>
<td>$117M</td>
<td>25%</td>
</tr>
<tr>
<td>Maternity</td>
<td>33,536</td>
<td>289</td>
<td>0.8%</td>
<td>$188M</td>
<td>$17M</td>
<td>9%</td>
</tr>
<tr>
<td>Adults</td>
<td>230,053</td>
<td>2,822</td>
<td>1.2%</td>
<td>$665M</td>
<td>$192M</td>
<td>29%</td>
</tr>
<tr>
<td>Seniors</td>
<td>24,970</td>
<td>560</td>
<td>2.2%</td>
<td>$57M</td>
<td>$27M</td>
<td>47%</td>
</tr>
<tr>
<td>Institutional</td>
<td>20,918</td>
<td>9,285</td>
<td>44.4%</td>
<td>$658M</td>
<td>$459M</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>702,137</strong></td>
<td><strong>14,091</strong></td>
<td><strong>2.0%</strong></td>
<td><strong>$2,031M</strong></td>
<td><strong>$912M</strong></td>
<td><strong>40%</strong></td>
</tr>
</tbody>
</table>

The concept of a patient centered medical home—a primary care ‘home’ which integrates all the care for the patient in a single place—has been elusive for these fragile populations. There were three major barriers we needed to address—

- **Lack of payment** for care coordination. Care coordination was not a billable service in most circumstances and so there was no incentive for individual healthcare providers to invest resources to integrate and coordinate care for complex patients seen in multiple settings.
- **Undefined expectations and accountability** for care coordination. Case management services were not consistently defined or prescribed and this was a broad term encompassing many types of engagement with variable success. Without definition and ability to measure and monitor activity there was no clear relationship between intervention and outcome.
- **No shared infrastructure.** Even with willing providers care coordination presents challenges on how to communicate and coordinate care when providers don’t use a common platform, and in communities with no common infrastructure to share patient information, especially the lack of shared physical and behavioral clinical information.

In 2010 the Patient Protection and Affordable Care Act, section 2703, provisions created new Medicaid program incentives to stimulate solutions to these barriers. The term “**Health Home**” was coined to define a set of six services (not a place) which were deemed essential, delivered by a team of health professionals and implementing Health Information Technology to link services.

In return for **enhanced financial incentives**—a 90 percent Federal match for the first 24 months—state
Medicaid agencies submit a State Plan Amendment as a waiver to the basic Medicaid program and specify chosen chronic diagnoses and behavioral diagnoses of the population to be covered by Health Home Services.

Clear expectations and accountability for Health Home services were defined in a set of six required comprehensive and timely care management services.

Use of Health Information Technology to link services was and is a critical requirement. Our experience with Medicaid Accountable Care Organizations - sharing data and population registries with clinic teams and driving process improvements - positioned UnitedHealthcare to win our first Medicaid Health Home contract in 2013 with the State of Washington. As the Medicaid Health Home “Lead Entity” we evaluated and contracted with local community based Care Coordination Organizations to deliver the core services for a super-utilizer population with multiple chronic conditions. Our existing technologies were designed for one entity (an ACO) managing a single population. This new focus on super-utilizers required us to rethink processes and provide a care management platform that enables clinical teams in multiple organizations to connect and collaborate as a care team for a single patient. We branded our solution CommunityCare™. The technology comprises a suite of applications to enroll patients, develop care teams, receive alerts on admissions/discharges/transfers and document and share care plans across the patient’s care team. Clinicians in the community can securely message each other using DIRECT protocols and share Continuity of Care Documents from their electronic medical records.

For patients with serious mental illness our goal is to ensure services are delivered by Care Coordination Organizations which are part of a specialty network – usually a community mental health center supported by a primary care center of excellence experienced in serving patients with complex mental health needs.

State Medicaid agencies face strong pressure to reduce costs of the Medicaid program where there are a disproportionate share of vulnerable patients and patients with complex medical/behavioral and social support needs. Our state customers have embraced community based Care Coordination Organizations as a key strategy – contracting through the health plan as in Washington State or directly with these community agencies, as New York has in its Medicaid Health Home program. State Medicaid agencies have largely rejected the traditional telephonic disease management model and remote engagement strategies and now mandate that patients have face-to-face support from care coordinators in the field. There is wide acceptance that, for vulnerable populations with complex behavioral, medical and social support needs, face to face engagement between the patient and the care coordinator is necessary to build a relationship of trust. The Care Coordination Organizations manage services for patients across all payers. We find this presents payers with both challenges and opportunities.

The emerging Care Coordination Organizations delivering Health Home services are formed by social services agencies with social workers and “feet on the street” experience working in communities and neighborhoods. They excel at providing community health workers who share the language and culture of our members – essential to building trust. However, these agencies are generally unsophisticated in healthcare analytics, measurement and management of population risk, process improvement and quality management and lack the capacity to engage and coordinate care for large numbers of vulnerable members who are eligible for these services. Alone they are unable to drive improvement in health outcomes and lower costs of care. The Care Coordination Organizations have engaged a small percentage of the eligible members to date and have a long way to go to grow capacity and capabilities. They need infrastructure, technology and process and measurement support.

Another key business issue driving our Patient Centered Care Model is the industry shift in payment from fee for service or transactional payment for volume, to pay for value or shared savings, shared risk arrangements. In Accountable Care Organizations, providers are held accountable for total costs of care and for improving outcomes for the patient population. The federal government is providing billions of dollars in incentives to introduce electronic medical records, to demonstrate meaningful use of data for
population health management. With shifting payer mix and more Medicaid eligible patients there is increasing pressure of providers to manage costs effectively. CMS awarded $300m in State Innovation Model grants in Round One and recently announced $660m available in Round Two. These incentives are driving integration of medical and behavioral health care and implementation of Health Home models.

**Patient Centered Care Model Program Description**

In the traditional clinic operating model, practices and physicians operate reactively - delivering care to those patients who have scheduled an appointment, and seeing patients in 15 minute time slots. Physicians provide the best possible care, given the limited information and time available. There are critical gaps with this approach: while clinicians know many individual patients, they are usually unaware of the risk levels of their patient population as a whole. In particular, they don't have visibility to their high risk patients who have never scheduled an office visit. They know about the care delivered within the four walls of their own practice, but don't know when their patients are seen elsewhere in the community - including those seen in the emergency room, seen by other physicians, or those who are admitted to the hospital. This lack of information severely limits clinicians’ ability to deliver on the ‘Triple Aim’ of our healthcare system: better health for populations, better care for individuals and lower costs of care overall. Clinicians need both information and processes to support expectations of accountability.

UnitedHealthcare’s Patient Centered Care Model has evolved since 2007 to an innovative approach to community based care that leverages the principles of population health management, improved medical/behavioral/social care integration and shares actionable information with providers to improve care for members with the most complex, chronic conditions.

The Patient Centered Care Model strategy includes clinical transformation support to both Accountable Care Organizations (entities accountable for lowering the costs of care and improving outcomes for a defined population) and Care Coordination Organizations who proactively engage and manage the highest risk, so called super-utilizer, populations and deliver individualized care coordination core services. We identify target communities based on hospital utilization and focus on ‘hot spots’ where there is opportunity to reduce inpatient/1,000 or emergency visit/1,000 rates.

One of the core challenges we face in healthcare is complexity. Providers face increasing demands to meet hundreds of different clinical metrics and outcomes while simultaneously lowering costs and creating a positive experience for consumers. In this environment, we recognize that our solutions and support must be simple, focused and universal, and help clinic teams to succeed in the objectives of the Triple Aim – improving population health, lowering costs of care and improving the experience of care. With that goal in mind we operationalized a simple accountability framework for engaging Accountable Care Organizations.

Our focus is to help practices maximize revenue for their population (primary care visits and quality incentives) and drive shared savings (lower costs) by increasing quality outcomes and focusing on continuous improvement across these areas shown. By focusing on the key drivers and leading indicators we keep attention on those areas that materially impact outcomes and costs.

- Improve Convenient Access to Care
  UnitedHealthcare Transformation consultants utilize scheduling data and help clinic teams with process initiatives to effectively manage capacity, increase same-day visit access, and reduce no-
show and emergency visits rates. Our teams collect scheduling detail and analyze clinic capacity and demand and by visit type. The focus is on initiatives which maximize team based care and access. The Institute for Healthcare Improvement methodologies are used to identify opportunities for improvement. We ensure the clinic has capacity sufficient to meet the needs of the population served – preventive care, sick visits and chronic care as well as care transitions for high risk patients.

- **Reduce Avoidable Emergency Visits**
  UnitedHealthcare provides daily emergency visit notifications direct to ACO clinic teams when an assigned patient shows up in the emergency room and provides workflow to enable clinic outreach and interventions to encourage the patient to establish/strengthen PCP relationship. A key focus is to identify the reasons for the emergency visit and identify strategies to lower misuse. For example, many patients go to the emergency room to fill prescriptions for narcotics. We leverage daily data to identify patterns of use and introduce initiatives to lower inappropriate emergency use.

- **Reduce Avoidable Admissions**
  We provide daily inpatient admission/discharge notifications to clinic teams using a web based care transitions technology with automated workflow to help care coordinators actively manage post-discharge care transitions and reduce readmissions. This technology connects care teams – it’s a bridge integrating care from the hospital level to the clinic teams. A key component is to show the relative risk of the patient, using our risk algorithms – which helps clinic teams and care coordinators to prioritize and drive improvement in Care Transitions following the Eric Coleman model. Workflows with automated triggers can be used to call patients and send reminders to see their PCP within seven days. At the same time the PCP is alerted that the patient is being discharged. We share information on care opportunities for these patients and encourage the clinician to address these during the follow up visit. To promote patient engagement, this same software reminds patients of their appointments and medication fills post discharge.

- **Improve High Risk Patient Care**
  In Accountable Care Organizations the UnitedHealthcare Clinical Transformation staff proactively analyze population risk drivers, identify the most fragile members who are a priority for care and share comprehensive patient profiles with the clinic. The Accountable Care Population Registry is used to track patients in high risk cohorts for six months of focused interventions with the specific goal to reduce adverse events, close gaps in care and re-engage these patients in regular care. Visits are planned – patients are scheduled every 90 days and visits include medication review, completing care opportunities, addressing any emergency visits or inpatient admissions and ensuring medical behavioral and social support is coordinated. The core interventions in these cohorts mirror the processes for the super-utilizer engagement, discussed below.

- **Improve Quality Outcomes**
  Our care transitions and population registry platforms provide regular updates on HEDIS care opportunities for the population and enable the clinic teams to identify open issues at every visit.

At the heart of our approach is a partnership between our local leadership, community ACOs and Care Coordination Organizations. We establish shared goals, deliver actionable information, provide enabling tools and technology and drive improvement using a plan/do/study/act model. We meet monthly with clinic leadership to review progress and adjust strategies as needed.
SUPER-UTILIZER COMPLEX POPULATIONS

Care Coordination Organizations

Our first step is to identify eligible populations. This may be the top one percent of the population (super-utilizers based on total costs of care) or the Health Home eligible population in a Medicaid market. Identification analytics are discussed in a later section.

The six core Care Coordination services identified in the Affordable Care Act are the basis of our super-utilizer program engagement. The first three focus on care team effectiveness – care coordination, care transitions and referral management – while the last three are individualized patient centered support services.

Since there are no nationally accepted uniform definitions of these services and how to measure them UnitedHealthcare created operational definitions. This enables us to have alignment with partners on how we measure, monitor and manage care delivery and, ultimately, relate the interventions to outcome effectiveness. Where Care Coordination Organizations use our CommunityCare™ care management platform we have the ability to capture encounters and send daily alerts of admissions/ discharges/ transfers for care transitions direct to the care team for follow up.

Our first step with partners is to discuss and agree expectations of performance, create baseline measurements and scorecards to monitor trends. We establish process and workflow for the six services:

1. **Care Coordination**
   The essence of care coordination is ensuring the patient is successful in completing regular visits and activities with the care team – the PCP, behavioral clinicians, specialists, and their care coordinators. We measure and trend for the complex population the percentage of members with a primary care visit within the last 90 days and also the percentage of members with a behavioral visit within the last 90 days. By establishing a common measurement standard and threshold for the population we can immediately identify patients who are not engaged in regular care. The goal is not to prescribe frequency of visits for each patient but rather to highlight and measure the population experience overall with a consistent metric. Priorities are established to re-engage complex patients. This process enables the care team to prioritize – in daily rounds identifying those who have not seen a clinician and are showing up in hospital.

2. **Care Transitions**
   Similar to our ACO model we measure key steps in care transitions for complex patients consistent with the Coleman model – a key indicator of the success of the process for the population is the percentage of patients discharged who have a clinical follow up within 7 days of discharge. We drive improvement in this standard across each community as a key component of the program, with daily notifications to the care team available when the Care Coordination Organization uses our CommunityCare™ platform. Expectations for care transitions include ensuring medication reconciliation is completed at the follow up visit, and care opportunities are also addressed.

3. **Referral Management**
   For vulnerable populations, lack of follow through on referrals is a significant challenge. Patients are left to navigate the health system and take action – get labs completed or visit a specialist or get community services - at a time when they’re most fragile and need support. No one knows how many referrals for services are not completed or are not timely. Referrals to community and social support
services are only visible for populations when we have a defined process to capture data and can manage to a performance standard. We created a general process model of referral management to measure the end to end cycle time: from initial primary care referral, to completing referral activity, ending with the patient’s return to primary care to discuss results with their doctor. We recommend two different standards – preventive care referrals completed within 30 days (for example referral for a colonoscopy or mammogram); routine referrals completed within 14 days (for example referral to lab or diagnostic testing or specialist visit). An initial threshold may be low – 50 percent of referrals for preventive care are completed within 30 days – but the measurement process enables us to measure the performance for the population consistently and identify opportunities for improvement.

4. Health Promotion
Health Promotion priorities focus on supporting the patient to complete all preventive care and address open care opportunities. Measurement focus for the population is the percentage of the population with “complete care” – defined as no current HEDIS care opportunities.

5. Individual Support
Individual support focuses on the Patient Activation Measure (PAM) and increasing the percentage of the population with activation levels 3 or 4 (taking action or maintaining health behaviors). In an analysis of 33,163 patients Hibbard, Greene and Overton1 (2013) found that patient activation is a significant predictor of cost. A single point increase in a PAM score has been reported to result in a 2 percent improvement in medication adherence and a 2 percent decline in hospitalization. The Patient Activation Measure consists of thirteen items that form a scale with psychometric properties. The items are statements about managing one’s own health, which patients answer with degrees of agreement or disagreement. The statements focus on confidence, beliefs, knowledge, and skills, such as “I know how to prevent problems with my health” and “I am confident that I can tell a doctor my concerns, even when he or she does not ask.” Individual support is focused on increasing confidence beliefs knowledge and skills to manage health.

6. Family/Caregiver Support
The National Alliance for Caregiving reports that 53 percent of caregivers who said their health had gotten worse due to caregiving also said the decline in their health has affected their ability to provide care. A decline in the caregiver’s health often leads to institutionalization of the care recipient2. Our goal for family/caregiver support is to engage family caregivers and assess caregiver health and recommend interventions for those who report their health as fair or poor.

**HEALTH INFORMATION TECHNOLOGY TO LINK SERVICES**

We have identified nine core technologies needed to successfully deliver integrated care at a community level. These tools are at different stages of deployment and use in different states, but represent the essential capabilities we believe will be needed to manage population health outcomes.

Core tools are part of our UHC clinical dashboard available in a virtual Cloud environment to community care teams.

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1 Judith H. Hibbard, Jessica Greene and Valerie Overton Patients With Lower Activation Associated With Higher Costs; Delivery Systems Should Know Their Patients’ ‘Scores’ *Health Affairs*, 32, no.2 (2013):216-222
The first technology we leverage is our **population risk stratification** tools – UnitedHealthcare uses the iPRO analytics engine to analyze and predict population risk and stratify our populations for Accountable Care Organizations and to identify super-utilizer populations driving highest costs of care.

Second, our **Accountable Care Population Registry** is shared with ACOs to provide a comprehensive clinical history for each patient managed in the ACO.

Third, providing e-Consult and Secure Collaboration capability enables care team members to share clinical information and consult notes for patients managed.

Fourth, community based care coordination platform’s are required to integrate care from the care team – **CommunityCare™** is our community based care management tool that enables the care team to connect and manage all six core care coordination services.

Fifth, automated care transitions capabilities are required to enable workflow – **UHC Transitions™** sends daily notifications to care coordinators if a patient is admitted to the emergency room or an inpatient stay and this triggers care transitions workflows.

Sixth, clinicians need **electronic medical records** capabilities that include DIRECT messaging to enable them to send and receive continuity of care documents to/from the community care team.

Seventh, a **clinical and claims repository** or data warehouse to deliver clinical history and analytics for the population. Today UnitedHealthcare leverages datawarehouse technologies and makes information available to ACOs and community based teams using the population registry and patient profiles. The repository includes information on care opportunities for the population.

Eighth, leveraging **health information exchange** is a core capability. For example tools that collect HL7 and care continuity documents and share them with providers – like discharge summaries and lab results.

Ninth, **electronic visit verification** capability enables real time monitoring and validation of home visits and face to face community based care activities by Care Coordination Organizations including health status monitoring.

Super-utilizer patients, including those in Health Home, need a high level of care coordination across the care team – especially between behavioral and medical providers. A core feature of our community based care management platform is to enable the care team to connect. The patient’s care team comprises the primary care physician, behavioral health clinician, the community based medical care coordinator, community based behavioral health coordinator and medical/behavioral specialists, peer support and community health workers.

Members are assigned to a care team and are closely monitored to ensure they have regular visits and avoid adverse events. For patients with serious and persistent mental illness we prefer they are assigned to a Community Mental Health Center and a primary care Center of Excellence with experience serving members with mental illness. These patients may be less comfortable in traditional primary care practice.
and specialty health care provider settings so bringing services to them in their behavioral health provider location and providing more support for accessing medical health prevention and treatment services is designed to promote better overall health outcomes.

On a daily basis the care team receives alerts and notifications of inpatient and emergency room use – including psychiatric facility admissions. The care coordinators use the platform to communicate with other members of the care team, schedule visits, complete assessments and monitor outcomes.

**VALUE BASED INCENTIVES**

In 2012, UnitedHealthcare published its white paper on payment reform: Farewell to Fee-For-Service. The shift toward increased collaboration, outcome-based payment and new benefit design is transforming how we pay for health care and how health care is delivered. Nationally, UnitedHealthcare has a strategic goal to reach $65B in spend by 2018 through value-based contracts that span our Medicaid, Medicare and commercial programs. These contracts include performance-based and bundled payments and involve Patient-Centered Medical Homes, Accountable Care Organizations and capitation arrangements. We continue to develop payment models that incentivize providers, are easy to implement and make it simpler for providers to execute. This includes tool kits that providers can use to help them succeed under these new models, including timely data and user-friendly feedback on their performance.

Our approach to payment reform and transformation leverages years of experience with incentive-based contracting models. Through the expansion of our existing programs and the creation of new innovative programs, we are rewarding providers for delivering improvements in quality (as defined by evidence-based guidelines) and cost efficiency.

Providers are not all at the same level of readiness to move to a risk-based contract. That said, we want all providers to ultimately take more accountability for the costs and quality of the care they deliver. UnitedHealthcare has developed a suite of value-based incentive models that we can leverage with providers based on their risk readiness and other criteria. A "one-size-fits-all" approach is not effective. We customize our approach across all stages of provider readiness and support them as they become more accountable for cost, quality and experience outcomes.

We have deployed incentive programs that incorporate the models below:

- **Primary Care Incentive Programs** - Designed to increase payment to primary care physicians in exchange for performance on preventive care and quality (ensuring that the gaps in care for HEDIS measures are closed) and efficiency measures (Tier 1 drug usage, lab efficiency usage, and participating versus non-participating lab referrals).
- **Performance-based Contracts** - We contractually require hospitals to earn their inflators and incentives by demonstrating improvement in such measures as hospital readmissions, average lengths of stay, hospital acquired infections/conditions, potentially avoidable hospitalizations, early term deliveries (< 39 weeks gestation), and advanced imaging use in the ER.
- **Episode/Bundled Payments** – Intended to integrate risk and create a continuum of care for a predetermined period of time or set of services. We have implemented episode payments for over 20 years for transplant services and are considered the market leader in this area.
- **Shared Savings/Risk** - Payer and provider share upside and downside risk against an agreed-upon budget after meeting quality and experience thresholds. This payment strategy is reserved for ACO providers managing the care of an attributed or assigned population across the continuum of care.
Our incentive payment models are **evolving to include Care Coordination Organizations** and incentivize integration of medical and behavioral services, and for effective engagement of patients who are in Health Home or super-utilizer programs such as the Patient Centered Care Model.

**STAFFING**

UnitedHealthcare has a national Clinical Transformation business unit responsible for the Patient Centered Care Model. The team leads our Accountable Care Organization and Health Home / Super-Utilizer programs. Key roles include

- **National Clinical Operations**
  Our national Clinical Operations team delivery the back office infrastructure and program support to enable daily hospital admissions/discharge/transfer notifications to ACOs and care teams and measurement of performance using operational scorecards. This team focuses on “headlights” data enablement and tools to enable care teams to take action and improve performance – like the Accountable Care Population Registry and UHC Transitions.

- **Market Medical Directors and Chief Medical Officer**
  The market clinical leaders are responsible for building relationship with our ACOs, Federally Qualified Health Centers and Care Coordination Organizations in the community and leading new initiatives to drive outcomes and success in achieving the Triple Aim in the Community.

- **Regional Director Accountable Care Programs/Health Homes**
  Our regional leaders have significant experience and expertise in driving health systems change, and are responsible for building and training teams to deploy the program in local markets and communities.

- **Transformation Consultant**
  Practice transformation consultants are skilled in process and workflow management and outcomes measurement. They are six sigma or CPHQ certified and are responsible for leading the organization from transactional reactive care processes to proactive care teams who manage at the population level. Transformation consultants are assigned by community and partner with up to five ACOs to implement plan/do/study/act improvement initiatives and improve integration of care across the community. They train on technology and tools and identify barriers to care.

- **Health Home Program Manager RN**
  In our Health Homes Program Manager RNs are assigned to work with network based Care Coordination Organizations – the Health Home Program Manager is accountable for helping the Care Coordination team prioritize and drive the core six processes and remove barriers to care. They are a clinical resource and, for Health Homes for patients with serious and persistent mental illness, have expertise in medical/behavioral health integration.

- **Community Support team**
  Depending on the size of practice and needs of membership, our practice based support team includes community nurses to support care teams managing high risk patient cohorts, clinical practice consultants with expertise in quality management and HEDIS metrics and Practice Performance Managers. Community Health Workers are part of our Community Support Team and are selected because they speak the language and share the culture of our members – their role is to build trust and engagement and help the member navigate the system and re-engage with the care team.

- **Network Contracting**
  Our network contracting teams lead development of contracts which align our clinical and financial incentives to improve care at the community level.
**PROGRAM IDENTIFICATION ANALYTICS**

Our Patient Centered Care Model program identification and analytics have been refined to identify *persistent* super-utilizers in the population. The goal was to describe the comparative predictive validity of the various approaches to risk stratification for Medicaid for the Patient Centered Care Model. We used two samples from the 2012 super-utilizer population across all Medicaid plans. The dependent variable was persistent super-utilizer in 2013 and the independent variables used were:

- Gender
- Age
- IPRO future inpatient risk
- 2012 paid $
- 2012 coefficient of variation for 2012 paid $
- 2012 acute inpatient admits
- 2012 ER visits
- 6 Medicaid product codes
- Total chronic conditions in 2012
- 178 Individual chronic conditions

Stratification analytics show the following:

<table>
<thead>
<tr>
<th>ID/Stratification</th>
<th>Identified Population (Total Population minus Sample)</th>
<th>Sensitivity</th>
<th>PPV</th>
<th>Member Months</th>
<th>2013 Paid</th>
<th>2013 IP Acute</th>
<th>2013 ER Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Top 5%</td>
<td>113,129</td>
<td>100.00%</td>
<td>41.78%</td>
<td>1,136,332</td>
<td>$18,049</td>
<td>965</td>
<td>3,155</td>
</tr>
<tr>
<td>2012 Top 5% + IPRO Future Inpatient Risk &gt; 10</td>
<td>16,670</td>
<td>24.94%</td>
<td>69.88%</td>
<td>168,397</td>
<td>$34,180</td>
<td>1,960</td>
<td>6,204</td>
</tr>
<tr>
<td>2012 Top 5% + Top 25% of IPRO Future Inpatient Risk</td>
<td>28,282</td>
<td>38.92%</td>
<td>65.04%</td>
<td>285,823</td>
<td>$34,984</td>
<td>1,533</td>
<td>5,400</td>
</tr>
<tr>
<td>2012 Top 5% + Top 25% of HCE Persistence Optimization Scores (Model 3)</td>
<td>28,220</td>
<td>46.83%</td>
<td>78.43%</td>
<td>285,228</td>
<td>$39,927</td>
<td>1,055</td>
<td>4,188</td>
</tr>
</tbody>
</table>

While the sensitivity and specificity of the models are important, **positive predictive validity** was the primary focus.

- The bottom line (model 3 in the table) allowed us to identify a smaller number of individuals with a higher positive predictive validity, allowing for the cost effective allocation of limited resources.
- Based on these findings, we created a customized identification model that outperforms the standard approach and provides a more precise cohort target

Using the enhanced stratification, a targeted cohort was identified for each state along with their medical spend. While the total population targeted is less than the 5 percent of the prior process it represents the super-utilizers that are persistent and that can be impacted through engagement.

When we launch the program we share information in two ways – ‘headlights’ data are operational actionable data for clinic teams delivered via technology and ‘tail lights’ reports are monthly scorecards to track overall performance – metrics are monitored using authorizations and compared to benchmark and goals. Trends are compared year over year.
Results to Date

For our Accountable Care Programs initial results are strong – in the first year in Medicaid results have shown a strong increase in primary care engagement and in parallel a reduction in emergency visits and admissions. We attribute these strong results to active practice executive engagement in the process.

For our persistent super-utilizer population, in Medicare we see a 6.5 percent improvement in inpatient/1,000 compared to baseline (authorizations data), and in Medicaid a 24.5 percent improvement compared to baseline (authorizations data).

We continue to refine scorecards and analytics to identify opportunities to improve the model.

The Future

The nation’s National Quality Strategy, first published in 2011, was designed to coordinate public and private efforts to improve the quality of health and healthcare. It defines the three national aims of Better Care, Healthy People/Healthy Communities, and Affordable Care and is framed around six priorities: making care safer, ensuring that each person and family are engaged, promoting effective communication and coordination of care, promoting the most effective prevention and treatment practices, working with communities to promote wide use of best practices to enable healthy living, and last (but not least) making quality care affordable.

Periodic assessments of the National Quality Strategy progress are mandated by the Affordable Care Act. The 2015 report “National Impact Assessment of the Centers for Medicare & Medicaid Services (CMS) Quality Measures Report” provides recommendations on performance measurement and shows where we are headed. The key recommendations point to the areas of national importance we can expect to see in the future:

- **Focus on Affordable Care and Care Coordination domains as high priorities for new measure development.**
- **With new measure development, emphasize data sources, such as electronic health records and all-payer databases, to ensure measures have the widest reach across payers and populations.**