



Patient Adherence

Innovation through Personalization

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Non-Adherence to Medication Is a Critical Issue

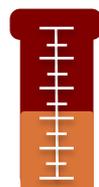
1 out of 3
people never fill
their prescriptions₄



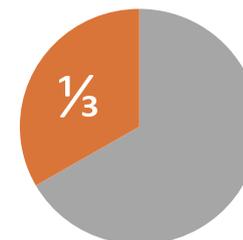
Nearly 3 out of 4
Americans don't take their
medications as directed₃



Nearly 45%
of the population has one
or more chronic conditions
that require medication₅



More than 1/3
of medication-related
hospital admissions are
linked to poor adherence₂



Costs Americans \$290 Billion Per Year₁

1. Balkrishnan R. The importance of medication adherence in improving chronic-disease-related outcomes: what we know and what we need to further know. *Med Care*. 2005;43(6):517-20
2. Osterberg, L. and Blaschke, T., Adherence to Medication, *New England Journal of Medicine* 353:487-97 (2005)
3. National Community Pharmacists Association and Pharmacists for the Protection of Patient Care Adherence Survey 2006
4. 2006 NCPA survey on adherence (conducted by the Polling Company)
5. American College of Physicians

**THE IMPACT IS
SIGNIFICANT**

Increasing adherence can do more **to improve health outcomes** than any single medical treatment improvement.

Source: World Health Organization. Adherence to Long-Term Therapies: Evidence for Action, 2003

Patients Are Not Actively Managing Their Health



The Unengaged Patient

Healthcare providers want patients to take a more active role in their own care because it leads to lower costs and better outcomes. A review of 31 national surveys suggests it has been an elusive goal.

50%

Medicare patients who usually don't bring a list of questions to doctor's appointment

60%

Adults who don't tell health professionals they have drug allergies unless specifically asked

30%

Adults who have never compared a medication they received from a pharmacist against doctor's order

61%

Americans who don't maintain their own medical record (paper or electronic)

Source: Center for Advancing Health, 2010

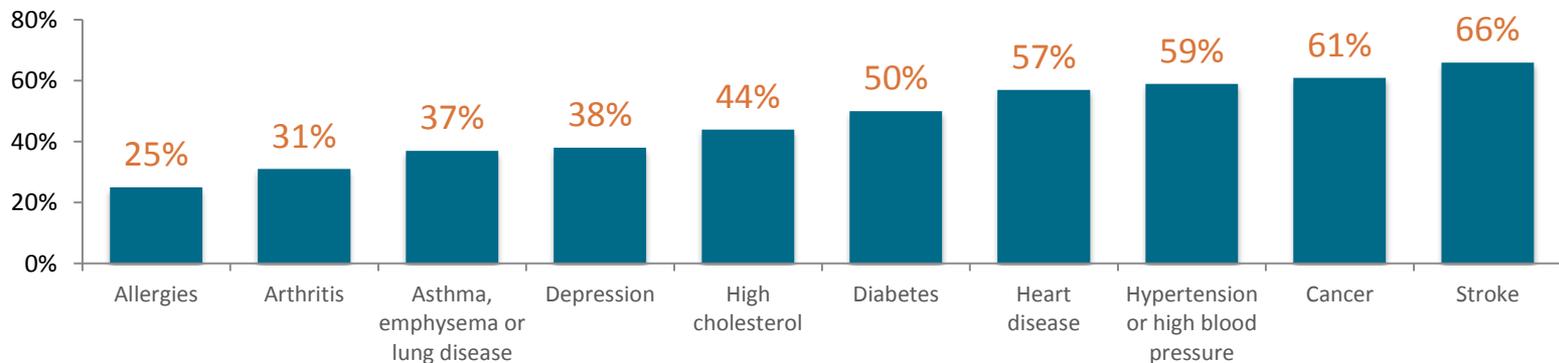
Or Following Doctors' Orders



Doctors' Orders Ignored

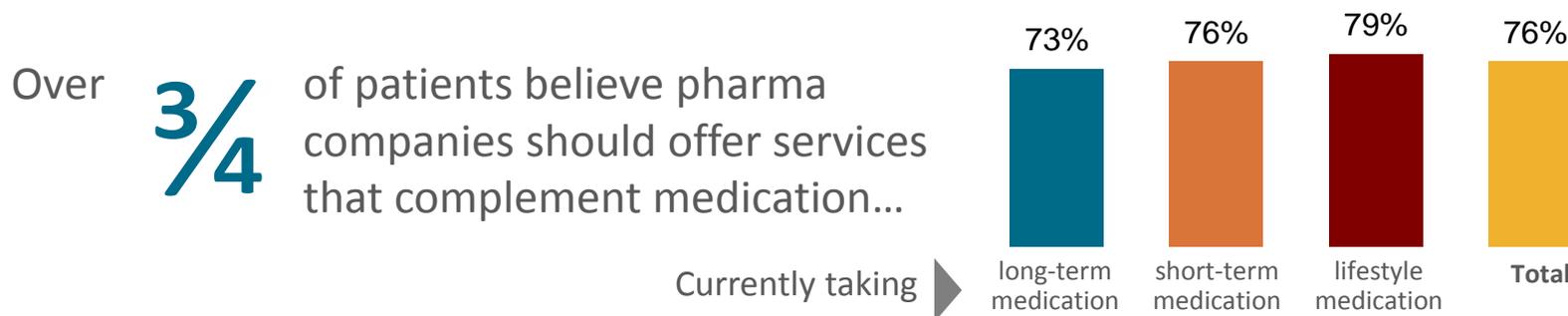
For certain chronic conditions, adherence to treatment recommendations is spotty, according to a survey of privately insured adults age 21 to 64.

Percent who **strongly** agree they follow treatment regimens carefully



Source: Employee Benefit Research Institute, 2008; Center for Studying Health System Change, 2008; Judith H. Hibbard and Peter J. Cunningham

But Believe Pharmaceutical Companies Can Help



...and are most receptive to assistance when beginning treatment.

	Currently taking			
	Long-term medication	Short-term medication	Lifestyle medication	Total Audience
When you are about to start taking the medication (examples of assistance or support: where to find the product, help determining if the medicine is right for you, information on taking the product, financial)	75%	69%	74%	74%
When you are thinking about switching (examples of assistance or support: comparison with alternative medicines, financial assistance/discounts)	53%	47%	49%	50%
When you are already on a medication (examples of assistance or support: information on side effects, adherence assistance, finding patients with the same health issue)	48%	52%	49%	50%
There are no circumstances under which I find it appropriate or desirable for a pharmaceutical company to provide me assistance or support	24%	31%	26%	27%

Source: Accenture Life Sciences: "Great Expectations: Why Pharma Companies Can't Ignore Patient Services"

Accenture retained Coleman Parkes Research to conduct an online survey of 2000 respondents in the US between September and October, 2013. Respondents were 18 years or above, with annual household income of \$25K or above, and currently taking a short-term medicine (e.g., antibiotics or migraine medication), a long-term medicine (such as those for treatment of diabetes or high blood pressure), or a lifestyle medicine (e.g., birth control pills or erectile dysfunction therapies).

Our Approach to Patient Adherence



Patient Understanding

Gain a deeper understanding of our patients' needs, attitudes, and behaviors along their treatment continuum



Program Customization

Keep it personal with support across channels, including nurses to engage patients based on their adherence profile



Stakeholder Integration

Merge relevant data sources to provide actionable information to key stakeholders in a timely manner



3-PHASED APPROACH TO DRIVE CONNECTION

Novartis Best Practice

- > Patient Segmentation Model
- > Patient Experience
- > Behavioral Psychology Applications

Patient Segmentation Model



Patient Understanding

- Research with thousands of patients helped us identify 4 discrete patient segments based on needs, attitudes, and behaviors, including adherence
- 7-question typing tool was identified to classify patients into these groups
- Model was validated across the following disease states: Hypertension, MS, Psoriasis, Transplant, Oncology, Congestive Heart Failure, and COPD

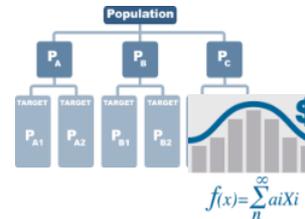
Patient Survey Designed



Survey Fielded with Rx Data Match



Adherence Segments Uncovered



Typing Tool Developed

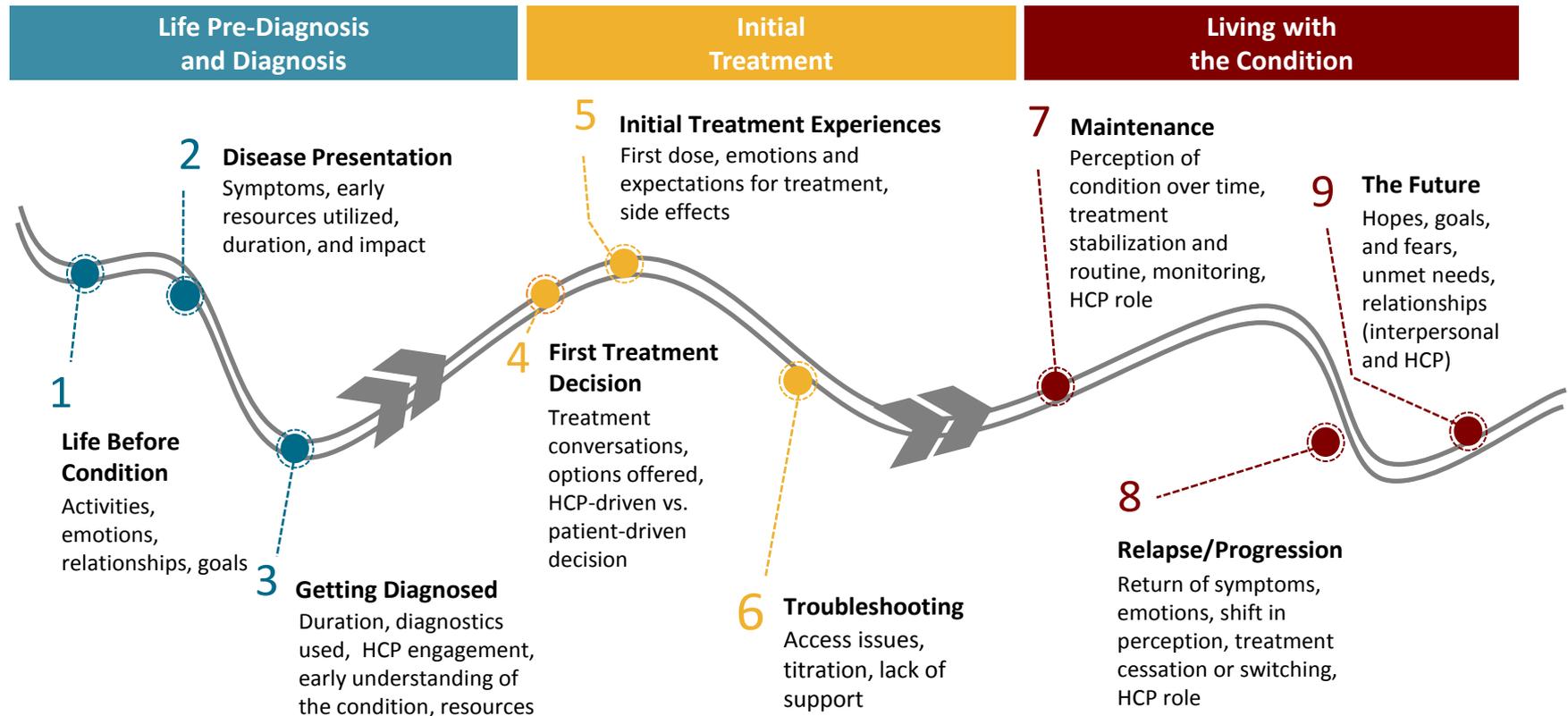


Patient Experience



Patient Understanding

Augments our understanding of the patient with disease state experience over time, uncovering the moments that matter to effectively manage engagement





Leverages proven psychology principles to shape our interventional techniques at the segment level

HOW CAN WE BEST DIMENSIONALIZE OUR SEGMENTS?

5-Factor Model

First, we deepen our understanding of the segments and add texture to them based on 5 Factor Model personality mapping.



HOW DO WE BEST CONNECT WITH OUR SEGMENTS?

Drivers of Connection

Once each segment is characterized via personality mapping, we can identify the best way to connect with them given their unique personality traits.



HOW DO WE BEST MOTIVATE BEHAVIOR CHANGE?

Motivational Interviewing Approach

Once we understand how to connect with each segment, we can select the most relevant Motivational Interviewing approach to improve adherence.



INNOVATIVE SUPPORT EFFORTS

Novartis Best Practice

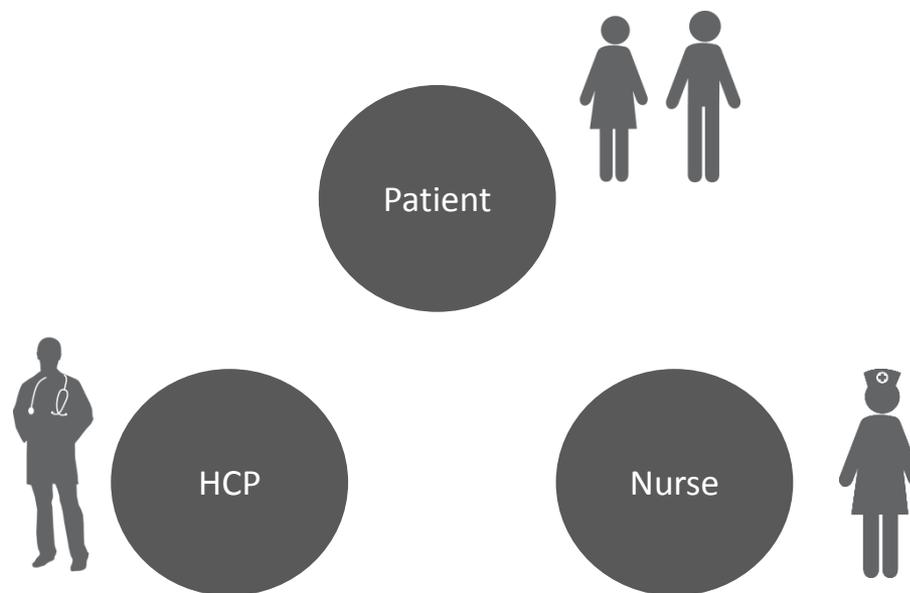
- > Nurse Support Program
- > Get on Track Program™
- > Podhaler™ Pro Mobile App

Engaging Nurse Adherence Programs



Program
Customization

Motivating patients across disease states to ensure proper therapy engagement and follow-through with HCP

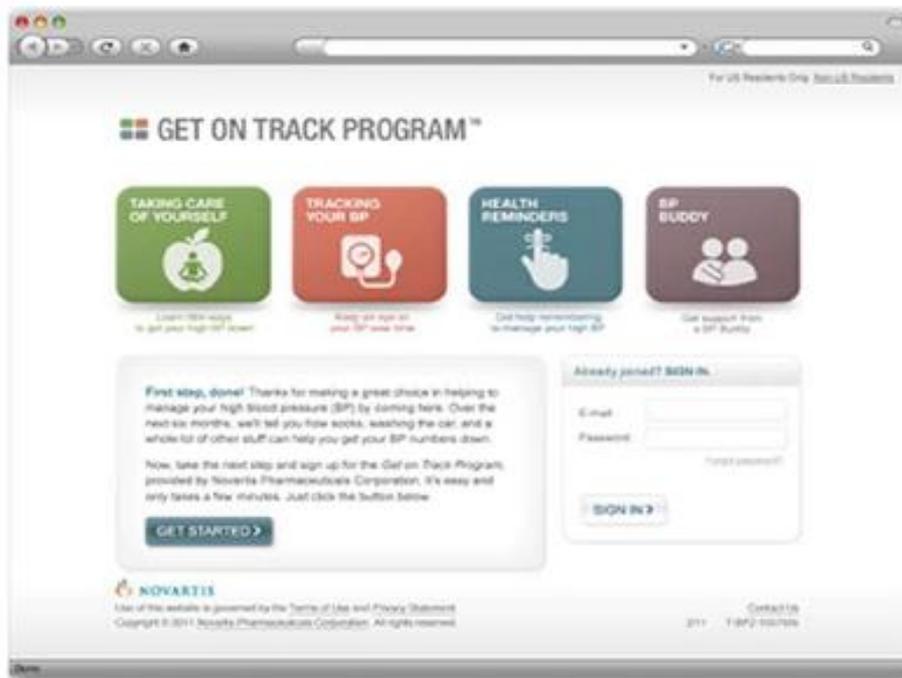


Award Winning Get on Track Program™



Program Customization

Engaging hypertensive patients with relevant “nudges” and technology



Watch out for the words pickled, cured, and smoked. They equal lots of sodium, which equals bad news for your high BP.



Over time, high BP can cause thickened or torn blood vessels in the eyes, which can lead to vision loss.

Leading CF Category – Podhaler™ Pro Mobile App



Program
Customization

**Offering patients
and caregivers
customized
therapy and CF
lifestyle-based
support**

Innovation driving
strong integration
with customers



Be a Pro

Resources on how to take TOBI® Podhaler™ (Tobramycin Inhalation Powder) properly, including helpful videos and tips

Talking Points

Pointers on how to talk about the condition with others and how to organize questions to HCPs

Support

Access to helpful tools and support, including treatment reminders, and to PodCare+™ support

Ask a Pro

Answers to treatment-related questions



UNLOCKING DATA

Novartis Best Practice

- > Health Care Professional Feedback Loop

New HCP Feedback Loop



Stakeholder
Integration

Captures refill metrics for a more informed dialogue among key stakeholders (HCPs, Patients) to yield improved adherence.

HCP

Capturing real-time patient-level adherence behavior

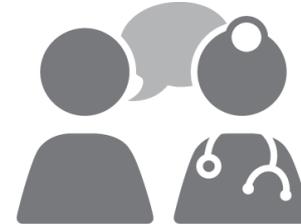


HCP
ENGAGEMENT
WITH
PATIENT



PATIENT

Receiving valuable HCP adherence guidance



EXPECTED RESULTS

Better dialogue between HCP and Patient

Engages more care teams with data that is in line with their interests

It's about Personalization

Helping *patients* stay motivated to maintain healthy behaviors is critical.

Through customization of message, channel, and resources, we can play an important role in the delivery of health care.





THANK YOU

