MAYORS CHALLENGE

Check in to Health

City of Helsinki, FI
Jussi Pajunen, Mayor of Helsinki

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Vision

1. ## What is the problem you are taking on?

Psychiatric patients fall between the gaps too often when transitioning from inpatient to outpatient care. This causes unnecessary suffering for patients and their families.

2. ## Why did your city choose this problem? Describe the problem's breadth and depth and its significance to your city, and include specific data points as appropriate.

Every year, 2800 psychiatric patients in Helsinki require acute hospitalization. Upon leaving the hospital, 78% are referred to an outpatient clinic for continuing care. However, the transition between the two systems is not governed by any unified process. This gap results in a number of patients quitting treatment, eventually requiring further inpatient care and endangering the care process.

The chain of care should remain unbroken, and the transition from one system to another be as smooth as possible. Transition is one of the most challenging phases of the care process, and often determines the future direction of the care.

Helsinki wants better care for these patients.

3. ## All "new" ideas stand on the shoulders of ideas that came before. Tell us what you know about prior efforts (programs, research, initiatives) to address this problem. What actions, if any, has your city taken on this issue? What about other cities? Tell us what elements you'll reuse and what you'll improve.

Although patient transfer between psychiatric services is common, research* shows that well-managed transitions are rare.

Various attempts have been made to mitigate failures in similar transitions, for example:

- The Toyota Production System by San Francisco's Langley Porter Psychiatric Hospital in 2006 to streamline patient transfer to outpatient clinics. Focusing on increasing efficiency, the system reduced scheduling times and doubled the monthly patient transfer rate. We can benchmark the findings from patients' point of view.

- The "Safety Receipt", a document for elderly care patients in transition between care units within the City of Stockholm was launched in 2008. We can use their findings of the usability of new kind of referral artefact.

- In 2011, four Aalto University design students (Tamara Amalia, Otto Schultz, Sanna Tuononen and Michael Walker) observed the Helsinki psychiatric care system, focusing on reducing unplanned patient exits from treatment during the transition between inpatient and outpatient care. Together with the City care staff they developed the "Transfer Ticket" idea that would give patients emotional security in the transfer phase. The outcomes and materials of that project are used as a part of our solution.

*e.g. Dorwart & Hoover, 1994, and Dr. Paul et al, 2013

4. Tell us the first sentence you'd like to read in an article about the launch of your project in the local paper.

Helsinki's 'Check in to Health' model for managing psychiatric care transitions is triggering worldwide interest; Cape Town becomes the third city to join the pilot.

5. Describe your idea and how it actually works on the ground.

When the patient is ready to shift from inpatient to outpatient care, they are not only taking an enormous step from 24/7 support to greater independence, they are also crossing an organizational boundary. Check in to Health aims at maximizing continuity of care and the patient's sense of security during this risky transition.

The first key element of the concept, a boarding-pass-type ticket, is filled out in at the psychiatric hospital in co-operation with the patient, investing him/her with a sense of ownership in the treatment process. Elements of the ticket act as a checklist that bind family members and volunteers to the treatment process and ensure outpatient staff meet the patient as soon as possible.

When the patient leaves inpatient care, the ticket guides them onto the next step: their first appointment with now-familiar outpatient staff. A new ticket bearing appointment and contact information is printed for each treatment session.

As the patient re-integrates into outpatient life, they will check in at the clinic and support group meetings by scanning the ticket or entering a simple code. The logbook generated by these checkins will provide psychiatric staff, family members, and patient advocates with information on the steps the patient has taken on their journey towards health.

At the same time, anonymous data produced by the checkins will provide quantitative information that can be used to improve co-operation between inpatient facilities, outpatient clinics, support groups, and patient advocates.

6. Explain specifically what elements are new and innovative about your idea.

- Using the positive and unexpected metaphor of travel in supporting patients in transition
- Combining design methods, psychiatric expertise and open source digital solutions to facilitate coordinated treatment and bridge organizational gaps
- Giving patients a novel, simple, globally understandable referral format
- Creating a solution that can be adapted to other challenging transitions
- Triggering significant organizational change through the introduction of artefacts co-created with patients

7. Is your solution primarily (a) solving an issue-specific problem, or (b) improving the way city government does its work? (choose one only)

Issue-specific: Public Health/Healthcare

Impact

8. Describe the citizens or stakeholders who this idea will impact most. How will your idea improve their life, the way they work, and/or their experience with the city?

The primary beneficiaries are psychiatric patients and their families.

Shifting the attention to the patient's needs and emotional state during sensitive transitions empowers them towards greater involvement in the care process.

Friends and families will benefit from less concern over their loved ones and increased confidence in seamless health care, improving general perceptions of the psychiatric care system.

Staff will have a simple tool to manage the transition process and work with stakeholders in different organizational silos. The motivation of staff will improve as they see more patients continuing treatment and experience less frustration in their work.

9. Talk to some actual citizens and/or stakeholders from other areas of government about your idea. What are three of the most interesting responses (please enter one interesting response per box)? What stands out as exciting and/or most impactful to people?

INTERESTING RESPONSE 1

When psychiatric patients are hospitalized, new things should be introduced early; this stresses the importance of preparing for the transition immediately when entering care. (Patient's spouse)

INTERESTING RESPONSE 2

Travel is a great metaphor! The customers get quality services, service providers benefit from the collaborative process and big data efficiency tools. A win-win concept! (Digital Service Developer)

INTERESTING RESPONSE 3

This could work in other challenging transitions, too: prisoners settling into society, children changing schools, elderly care patients entering permanent care. (Citizen)

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10. What two to four key metrics will you track throughout this project, starting now and continuing through and beyond launch? How will you collect this information?

Helsinki currently tracks the number of recurring inpatient treatment incidents. This would be used as a proxy for general concept efficacy.

The new model would allow Helsinki to also measure:

1) the percentage of patients entering the mental health care system who drop out of the treatment cycle,

2) specific, segmented information on patients who return to the hospital from outpatient care as well as

3) patient and employee satisfaction (i.e. user surveys and observation)

Anonymous logbook data will provide information on

4) the effectiveness of various city-run and third-sector programs in supporting psychiatric patients

Implement

11. Provide the name and title of the city employee who will serve as project lead. Describe their position within your city's government.

Mr. Jussi Niemi-Pynttäri, M.D., Director of the Malmi Psychiatric and Substance Abuse Centre, a city-run outpatient clinic with a population base of 150,000 that treats 3,250 patients annually.

12. List the team that will implement this idea within your city government. What value does each member bring?

Mayor Jussi Pajunen and Laura Räty, the deputy mayor responsible for social affairs and public health, will bring overall leadership to the project, ensuring political support and raising awareness of the problem.

Jussi Niemi-Pynttäri, M.D., Director of the Malmi Psychiatric and Substance Abuse Centre, will act as the project lead. His staff at the outpatient care will play a key role in the piloting phase.

Along with her staff, Leena Turpeinen M.D., chief physician at the Aurora Psychiatric Hospital, will represent in-patient care.

City-employed designer through the Design Driven City project will bring design competence and design methods.

Jarmo Eskelinen, Director of Forum Virium, a city-owned digital development company, will answer for data development of the system.

We will hire a project staff with the expertise in developing health care processes and measuring impact.

13. Who are all the people that need to say yes in order to bring your idea to life?

- Patients receiving psychiatric care and their families
- Directors, doctors, and nurses at psychiatric care hospitals and outpatient clinics
- NGOs linked in to the psychiatric care ecosystem
- Members of the city's Social Services and Health Care Committee
- The City's Strategy Director and Budget Director

14. Thinking about the phases from idea to implementation, what parts of your idea might you prototype? What early opportunities do you see for testing aspects of your strategy that can help inform your overall idea?

Prototyping ensures the fluid functioning and positive emotional character of the ticket in the real-world context. It will indicate how the data collection and check-in processes need to be designed. The logbook user interface can be prototyped using simple check-in codes or ean-codes that service providers can read with a phone camera.

Helsinki's Malmi outpatient clinic and Aurora hospital will act as pilot partners to test the new referral process. Observations of patient-staff interactions will be used in planning of the entire transition process, which can also be prototyped by dramatizing critical situations in the service process.

15. Describe your implementation plan and its key phases. Specifically note when you will (a) begin implementation (assuming you receive a prize in fall 2014), (b) fully launch, (c) record your first measurable outcome or impact, and (d) achieve full scale.

As preliminary planning has already been conducted, we would be able to launch the project very rapidly; key players are enthusiastic about adopting and developing the concept.

Implementation would begin immediately in fall 2014 through formalization of the project team and advisory group, refining budgeting, confirming the first pilot hospital and outpatient clinic, and start working on the first prototypes.

The pilot stage would begin in spring 2015 and continue through early 2016. During this pilot, outcomes measured would include the monthly decrease in the number of patients returning to hospital care or dropping out of the care cycle, patient and employee satisfaction, and segmented patient data for concept iteration.

The iterated concept would be expanded to other outpatient clinics a year after the first pilot, in spring 2016. Full-scale integration would be achieved by summer 2017, approximately two and half years after the project started.

An independent evaluation would be conducted to confirm results and impact. Once the system is successfully implemented in the psychiatric context, we would begin exploring opportunities for expansion to other contexts: other fields of medicine, substance abuse treatment, elderly care units, and prisons.

16. How will you engage organizations, talent, and/or resources outside of the municipal government both in developing your solution, as well as during implementation? Who would you like to engage and how would they add value to your project?

The project will be guided by an advisory board consisting of care institutions, patient associations, design professionals and academics. We will invite the following organizations to participate as key partners:

- The Finnish Central Association for Mental Health, NGO promoting mental health, to introduce former patients to work with the project.
- The National Institute for Health and Welfare and the University of Helsinki, Departments of Medicine and Behavioral Sciences, to contribute knowledge on the latest mental health research as well as evaluation expertise.
- Aalto University, Department of Design, to provide expertise in user-driven processes, patient involvement, service co-creation, and data visualization.

17. At this stage, what is your best estimate of the cost to both implement and sustain your idea? Provide two costs with a brief explanation: one for all the work that will lead up to launch, and another for the project's year-to-year cost.

Leading up to launch
€ 2,300,000

This budget consists of personnel costs, service, artifact and process design, technical

development of data integration into the ticket and patient logbook, measurement instrument development, and training staff and NGOs.

Year-to-year
€ 200,000

Staff dedicated to continuous development of the transfer process, educating new personnel, integrating new checkin points, improving data collection and analysis, service iteration, and managing updates.

18. What are the three largest risk factors that could derail your idea and why? What is your plan to mitigate those risks?

1) Organizational cultures and different orientations. Changes disrupt work patterns and can cause resistance, especially when different organizational cultures come together. Furthermore, genuine issues such as lack of time and large workloads may interfere with adoption of new developments.

Solution: Participatory and co-creative methods involve key stakeholders and staff in development to ensure a sense of ownership. Prototyping and piloting enables the detection and addressing of issues before scaling up the system and drums up positive interest.

2) Data security and privacy: Patient information is sensitive and must be secured at all phases of the transition process.

Solution: The ticket and logbook will be designed to contain as little sensitive information as possible. Compliance with privacy laws will be assured. Check-in information will be gathered and analyzed anonymously.

3) Patients remaining in the key role. In outpatient care, the patient him- or herself is always in a key role in ensuring treatment. For instance psychotic patients often feel like they do not need care or medication, making them a particularly challenging group.

Solution: Helsinki recognizes that meeting these patients on their own terms is a must. The development and design process will involve former patients as experts to ensure concept feasibility.

Transferability

19. How universal is the problem you're addressing? Make your best effort to quantify the effects of this problem locally, nationally, and globally.

Since the 1970s, psychiatric hospital beds have decreased by 75% in Finland, a trend mirrored in other Western countries. Managing transitions between units is thus of growing relevance. According to the US National Transitions of Care Coalition, 42% of hospitals report that 'things fall between the cracks when transferring patients from one unit to another'.

Annually, 2,800 Helsinki residents require psychiatric inpatient care. Accounting for loved ones, we estimate 15,000 residents to be directly affected by inpatient-outpatient transitions.

A full year of inpatient treatment work can be undone in two weeks if the transition to outpatient status is unsuccessful.

20. Share your idea with city employees from three different cities (feel free to reach out to any city that might benefit from it—not just ones that are eligible to apply for the Mayors Challenge). How do they respond? Describe the need they see and any challenges they anticipate.

CITY 1

We've noticed that good ideas work every now and then, but permanent improvements require systematic and continuous development. This will determine how successful you will be. (Project Manager, Stockholm)

CITY 2

We could apply learnings from this to elderly care, where many patients find the system too complex to navigate, drop out and return to inpatient care. (Senior Executive Officer, Oslo)

CITY 3

This would be a great tool to help motivate HIV-positive tuberculosis patients to take their medication and come in for treatment. (Professional Officer, Cape Town)

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21. Make the case for why your idea, if successful, will be able to spread to other cities.

The concept can be adapted to various cases. The ticket and the logbook have been designed to work globally. They are simple solutions that require minimal investment.

If we succeed in developing a solution that works well for a vulnerable population in a challenging situation, we are confident that it will arouse broader interest, regardless of how health care is structured locally.

Based on discussions with other cities, the concept has promise in other transitions. Possibilities include elderly patients making the move into assisted living, prisoners reintegrating into society, and refugees and asylum seekers trying to assimilate into new cultures.

Summary

Imagine you are presenting your idea to the Mayors Challenge selection committee. How would you summarize your idea in a way that gets people excited for its implementation? Make sure you clearly articulate the problem, the solution, and how your idea will change your city for the better.

Entering this competition, Mayor Jussi Pajunen wanted to find a solution that would benefit the citizens needing help the most: we decided to focus on psychiatric patients. Every year, 2,800 psychiatric patients in Helsinki require hospitalization.

Upon leaving the hospital, 78% of patients are referred to an outpatient clinic for continuing care. This transition is risky and its failure undermines treatment results and causes unnecessary human suffering. Check in to Health is a solution to this transfer problem. It combines design methods and the power of data, bringing relief to patients, their families and helping psychiatric professionals achieve better care results.

Check in to Health consists of a tangible boarding-pass-type ticket, filled out at the psychiatric hospital in co-operation with the patient, investing him/her with a sense of ownership in the treatment process. As the patient re-integrates into outpatient life, they check in at clinics and support group meetings by scanning the ticket.

The data attached to the logbook will provide psychiatric staff and family members with information on the steps the patient has taken on their journey towards health. The data collected will provide quantitative information that can be used to improve co-operation between inpatient facilities, outpatient clinics, support groups, and patient advocates.

Moreover, the simplicity of our solution makes it easily adaptable for use in other challenging transitions. Not all cities are responsible for providing mental care; in fact, few are. But all cities are familiar with groups of people who risk falling into gaps while transferring between institutions.

A great idea needs a great name. What are you calling your initiative?

Check in to Health