

# Beyond the Now

A call for action on therapeutic adherence



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## A call for action on therapeutic adherence

Anyone who takes medication can experience non-adherence, and everyone knows someone who has struggled to take their medication or make lifestyle changes to improve their health. If policymakers take action to support people facing these challenges, they will help them to take control of their treatment and lead healthier, happier lives. This will also aid healthcare professionals in helping patients deal with this problem. Ultimately, it will help society to alleviate the related economic and social burden of non-adherence as well as increased mortality and ill health which is associated with non-adherence to treatments.

We all want to see stakeholders engage in actions to improve our lives and those of our family and friends. This is particularly true in the context of the increasing prevalence of chronic diseases worldwide and following the COVID pandemic health crisis experienced by most people with chronic disease in recent years.

As an example, the Conference on the Future of Europe shows that as we recover from the COVID-19 pandemic, health issues matter more than ever to voters.<sup>1</sup> Its participants called for a common understanding of the challenges faced by people with health problems - which will also help us to understand and address the challenge of medication non-compliance.

According to WHO, adherence is defined as *“the extent to which a person’s behaviour – taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a healthcare provider”*.<sup>2</sup> Thus, improving therapeutic adherence will have a profound impact on people’s health and well-being.

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<sup>1</sup>European Commission (2022). *Conference on the Future of Europe: Report on the final outcome*. [Available here](#).

<sup>2</sup>World Health Organization (2003). *Adherence to long-term therapies: evidence for action*. [Available here](#).

# Key messages

## 1. Therapeutic adherence has a big impact on improving health

- Around **125 000 people** in the United States and **200 000 people** in Europe die each year due to non-adherence.<sup>3,4</sup>
- Non-adherence **affects up to 40-50% of patients** worldwide regardless of the method used to assess adherence in individuals with chronic conditions such as diabetes and hypertension.<sup>5,6</sup>
- Non-adherence to medication is a significant issue among patients with chronic kidney disease (CKD) who have a high pill burden, with up to 80% of individuals affected.<sup>7</sup>
- A 2012 study estimated that 4.6% of global total health expenditure, or \$269Bn, could be saved by improving adherence to treatment.<sup>8</sup>

Despite the human and financial costs linked to poor therapeutic adherence, it often remains unrecognised and neglected. Policymakers can and should act to ensure that people get the full benefit from their treatment, and to reduce preventable ill-health and the consequent social cost that is incurred.

## 2. Non-adherence is not a personal failing

People **face a wide variety of barriers to treatment adherence** – both individual and systemic – and they deal with these barriers in different ways. As a rule, some chronic diseases do not come with clear and visible symptoms, at least at their initial stage, and the absence of symptoms to remind the patient of his condition, as in the case of high blood pressure or type 2 diabetes, makes it more difficult to pay daily attention to their medical programme. But whatever the circumstances, **blaming patients for missing their treatment is misleading and shows a misunderstanding of systemic factors and the role of healthcare providers, including doctors.** According to the OECD<sup>9</sup>, these factors may include:

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<sup>3</sup> Baryakova TH, Pogostin BH, Langer R, McHugh KJ. Overcoming barriers to patient adherence: the case for developing innovative drug delivery systems. *Nat Rev Drug Discov.* 2023;22(5):387-409. doi:10.1038/s41573-023-00670-0. [Available here.](#)

<sup>4</sup> Van Boven JF, Tsiligianni I, Potočnjak I, et al. European Network to Advance Best Practices and Technology on Medication Adherence: Mission Statement. *Front Pharmacol.* 2021;12:748702. Published 2021 Oct 11. doi:10.3389/fphar.2021.748702. [Available here.](#)

<sup>5</sup> Lee EKP, Poon P, Yip BHK, et al. Global Burden, Regional Differences, Trends, and Health Consequences of Medication Nonadherence for Hypertension During 2010 to 2020: A Meta-Analysis Involving 27 Million Patients. *J Am Heart Assoc.* 2022;11(17):e026582. doi:10.1161/JAHA.122.026582. [Available here.](#)

<sup>6</sup> Gupta P, Patel P, Štrauch B, et al. Risk Factors for Nonadherence to Antihypertensive Treatment. *Hypertension.* 2017;69(6):1113-1120. doi:10.1161/HYPERTENSIONAHA.116.08729. [Available here.](#)

<sup>7</sup> Seng JJB, Tan JY, Yeam CT, Htay H, Foo WYM. Factors affecting medication adherence among pre-dialysis chronic kidney disease patients: a systematic review and meta-analysis of literature. *Int Urol Nephrol.* 2020;52(5):903-916. doi:10.1007/s11255-020-02452-8. [Available here.](#)

<sup>8</sup> Vrijens B, Antoniou S, Burnier M, de la Sierra A, Volpe M. Current Situation of Medication Adherence in Hypertension. *Front Pharmacol.* 2017;8:100. Published 2017 Mar 1. doi:10.3389/fphar.2017.00100. [Available here.](#)

<sup>9</sup> OECD (2018). *Health Working Paper No. 105 – Investing in medication adherence improves health outcomes and health system efficiency.* [Available here.](#)

- Barriers linked to the healthcare system, such as poor patient-provider relationships, complex processes for collecting prescriptions, and limited prescription charge reimbursement.
- Multiple long-term conditions.
- Complex drug treatments that are difficult to administer and store or have side-effects.
- The degree of trust people have in their healthcare team, as well as their personal and cultural beliefs, memory, and level of health literacy.
- Low incomes, poor social coverage, and a lack of social and emotional support.

Many, if not all, of these issues have been exacerbated by the COVID-19 crisis and its impact on health systems and economies.<sup>10</sup> We need a common policy approach to resolve them.

### 3. Innovation can help people continue with treatment

Multiple factors are involved in poor adherence behavior, which implies the need for a multidisciplinary approach. Developing medication adherence programs will refine the essential interactions between patients, doctors, pharmacists, and specialist healthcare providers such as nurses, social workers, and psychologists.<sup>11</sup>

Medical and digital innovation has given people new tools to facilitate therapeutic adherence. These include **single pill combinations (SPCs)**, which combine several evidence-based medicines into a single pill and can simplify the treatment regimen and reduce health risks and costs to health systems.<sup>12</sup> For instance, a study conducted in Italy<sup>13</sup>, looking at SPCs for the treatment of hypertension, found that **taking a single pill combination increased adherence from 27% to 60% in just one year**, compared to the same medications taken in more than one pill, **reduced mortality and cardiovascular events by 23%** and **decreased costs by almost €700 per patient**.<sup>14</sup> In addition, something as simple and easy to distribute as a smartphone app to remind people to take their pills might also improve adherence and help

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<sup>10</sup> Khan NA, Stergiou GS, Omboni S, et al. Virtual management of hypertension: lessons from the COVID-19 pandemic- International Society of Hypertension position paper endorsed by the World Hypertension League and European Society of Hypertension. *J Hypertens.* 2022;40(8):1435-1448. doi:10.1097/HJH.0000000000003205. [Available here.](#)

<sup>11</sup> Robberechts T, Stoenoiu MS, Burnier M, Persu A. Optimizing drug adherence in hypertension: More than a mind game. *Kardiol Pol.* 2024;82(3):259-266. doi:10.33963/v.phj.99493. [Available here.](#)

<sup>12</sup> Laufs U, Rettig-Ewen V, Böhm M. Strategies to improve drug adherence. *Eur Heart J.* 2011;32(3):264-268. doi:10.1093/eurheartj/ehq297. [Available here.](#)

<sup>13</sup> Borghi C, Jayagopal PB, Konradi A, et al. Adherence to Triple Single-Pill Combination of Perindopril/Indapamide/Amlodipine: Findings from Real-World Analysis in Italy. *Adv Ther.* 2023;40(4):1765-1772. doi:10.1007/s12325-023-02451-y. [Available here.](#)

<sup>14</sup> Parati G, Kjeldsen S, Coca A, Cushman WC, Wang J. Adherence to Single-Pill Versus Free-Equivalent Combination Therapy in Hypertension: A Systematic Review and Meta-Analysis. *Hypertension.* 2021;77(2):692-705. doi:10.1161/HYPERTENSIONAHA.120.15781. [Available here.](#)

save lives, as well as home blood pressure monitoring by patients provides better control of hypertension than usual care.<sup>15, 16</sup>

In fact, it has been estimated that AI-enabled monitoring tools to improve adherence could **save up to 20,000 lives and up to €45.6Bn a year in Europe alone.**<sup>17, 18</sup>

#### **4. Empowering people leads to real change**

A WHO survey revealed that 27.1% of people questioned in six European countries found it difficult or very difficult to understand the information leaflets accompanying medicines.<sup>19</sup> The concept of Therapeutic Patient Education empowers people to be active partners in their own care, rather than passively supplying them with information, and allows them to be effectively supported by healthcare professionals. Furthermore, patient advocacy organisations are also key partners in overcoming the challenge of non-adherence. They are well-placed to help their peers develop their health literacy<sup>20</sup>, as well as to contribute to public policies<sup>21</sup> that promote adherence. In addition, it is sometimes patients' relatives who take responsibility for their treatment, for example in the case of elderly patients with impaired cognitive performance. In these situations, it is obviously essential to involve the patient's relatives of the patients, as much, and sometime even more than the patients themselves.

**Approximately \$500Bn in savings could be made in 186 countries by encouraging the responsible use of medicines in accordance with medical instructions. Specifically, about 8% of total health expenditure worldwide, could be avoided by improving therapeutic adherence.**<sup>22</sup>

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<sup>15</sup> Mc Manus RJ et al. Home and Online Management and Evaluation of Blood Pressure (HOME BP) using a Digital intervention in poorly controlled hypertension: randomised controlled trial. *BMJ* 2021;372:m4858 | doi: 10.1136/bmj.m4858. [Available here.](#)

<sup>16</sup> McManus RJ, Mant J, Franssen M, et al. Efficacy of self-monitored blood pressure, with or without telemonitoring, for titration of antihypertensive medication (TASMINH4): an unmasked randomised controlled trial. *Lancet*. 2018;391(10124):949-959. doi:10.1016/S0140-6736(18)30309-X. [Available here.](#)

<sup>17</sup> Eliana Biundo, Andrew Pease, Koen Segers, Michael de Groote, Thibault d'Argent, Edouard de Schaetzen (2020), *The socio-economic impact of AI in healthcare.* [Available here.](#)

<sup>18</sup> Schmieder RE, Wassmann S, Predel HG, et al. Improved Persistence to Medication, Decreased Cardiovascular Events and Reduced All-Cause Mortality in Hypertensive Patients With Use of Single-Pill Combinations: Results From the START-Study. *Hypertension*. 2023;80(5):1127-1135. doi:10.1161/HYPERTENSIONAHA.122.20810. [Available here.](#)

<sup>19</sup> World Health Organization (1998), *Therapeutic Patient Education - Continuing Education Programmes for Health Care Providers in the Field of Prevention of Chronic Diseases.* [Available here.](#)

<sup>20</sup> European Patients Forum (2015), *Adherence and Concordance.* [Available here.](#)

<sup>21</sup> World Health Organization (2003), *Adherence to long-term therapies: evidence for action.* [Available here.](#)

<sup>22</sup> Vrijens B, Antoniou S, Burnier M, de la Sierra A, Volpe M. Current Situation of Medication Adherence in Hypertension. *Front Pharmacol*. 2017;8:100. Published 2017 Mar 1. doi:10.3389/fphar.2017.00100. [Available here.](#)

# How global policymakers can make an impact

There are some very specific measures that countries can take to support people with poor therapeutic adherence, which can have a considerable impact:



Use health data repositories to store real-world data that reflects the value of SPCs in supporting therapeutic adherence.



Encourage governmental agencies to collect and report data on therapeutic adherence and make these statistics public so that the government can be held to account.



Fund the implementation of best practice in Therapeutic Patient Education.



Help patients and healthcare professionals to build their skills and confidence in using digital health tools.



Integrate chronic diseases and therapeutic adherence into the fight against NCDs and implement policies at alleviating them – including the psychological challenges associated with taking long-term medication.



Access FDC / call for regulatory flexibility to promote access to FDCs, in line with our GPL advocacy.



Promote research into the objective measurement of adherence.

If policymakers take action to support people and health care professionals faced with problems of non-adherence, this will have a considerable impact, as it will also help them to take charge of their treatments and lead healthier, happier lives.



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