

Self-Care: A Major Value-Add to Global Health and Workforce Productivity



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Introduction

In 2015, the Institute for Health and Productivity Management (IHPM) released a white paper entitled “ The Case for Self-Care and Over-the-Counter Medicines: Value-Add to Health Care and Productivity for Employees and Employers.” The paper highlighted the significant favorable impact of self-care on productivity at work in the United States, as well as the savings that come from reducing unnecessary spending on professional health care.

A new worldwide look at the same subject now has produced this white paper entitled “Self-Care: A Major Value-Add to Global Health and Workforce Productivity.” The geographical scope of this new paper provides regional as well as global assessments of how self-treatment of prevalent minor ailments, which often are chronic, can substantially reduce unnecessary medical and pharmacy costs – and improve functionality and productivity at work.

“The health of the workforce is identified as a pillar of global productivity and competitiveness...”

...in the 2014-15 report of the *World Economic Forum* (WEF) – shortly after it chose the *Institute for Health and Productivity Management* (IHPM) to assume leadership of its global Workplace Wellness Alliance

Many workers suffering from a multitude of minor, self-treatable health issues on any given day in work places around the world are functionally impaired in their job performance, and kept from being fully productive. For their employers and the nations where they are located, one of the best opportunities to avoid unnecessary spending for medical treatments – even while improving work force productivity – is to foster more employee self-care.

This paper further substantiates general conclusions reached in private research conducted last year by IHPM with select major employers and payers in the United States and Europe:

- **More consumer responsibility for health and health care is an irresistible global trend** – made imperative by underlying demographic and economic trends such as aging populations with more and costlier chronic illness and rapidly rising medical expenditures around the world, and more feasible by progress in both medical and information technology;
- **Self-care and self-management of personal health – and of chronic medical conditions – will become a critical foundation for more affordable and accessible consumer-based health system.;**
- **Employers can play a bigger role globally in improving and sustaining the health of the work force by supporting employees’ self-care efforts.**

From the research, four (4) important recommendations emerge for consideration by policy-makers to help employers play this bigger role:

- **Self-care generally – and the use of non-prescription or over-the-counter medicines in particular – should be an integral part of employers’ health, wellness and prevention model;**
- **Preventive strategies should be put in place to reduce the functional impairment or presenteeism that results in lost productivity on the job, and is a significant but often unrecognized economic cost of chronic health issues – even more so for the minor ailments that are self-treatable with non-prescription medicines;**
- **Consumer/employee education on appropriate self-diagnosis and self-treatment of specific ailments should be made a global health and economic priority – to reduce unneeded medical and prescription drug expense, unnecessary time away from work, and functional impairment impacting productivity at work;**
- **Collaboration between health care professionals and employers is needed to establish guidelines for expanding use of self-care, and make it fully collaborative for the medical community as well as part of the public health infrastructure**

Why Self-Care Matters

The *World Health Organization* (WHO) has defined self-care as

“... the ability of individuals to promote health, prevent disease, and maintain health and to cope with illness and disability; it is a broad concept encompassing nutrition, lifestyle and self-medication.” And, in particular, the WHO specified self-medication as one means for “managing minor ailments.”

The definition coming from the international stakeholders in the IHPM research just described above matches the WHO nicely: *“taking responsibility for one’s own health in terms of both illness and wellness, without unnecessary doctor visits.”*

The WHO’s acknowledgement of self-medication as central to self-care is consistent with the expanding role of these medicines worldwide for two important reasons:

1. Self-medication provides quick, safe and effective relief from symptoms of prevalent self-treatable chronic conditions that impact the wellness, quality of life and job performance of millions of workers;
2. It is cost-effective when health care costs are rising rapidly worldwide because of aging populations suffering more chronic illness.

Consumers are increasingly accepting a more significant role for themselves in practicing self-care. The *European Commission* in 2012 published the results of a *Eurobarometer Qualitative Study* on “Patient Involvement” – based on in-depth interviews with patients and health practitioners in 15 EU Member States. The study found a “near-unanimous

agreement across all countries, among both practitioners and patients, that patients have a role in self-care.” All patients participating in the study reported they “saw it as natural to assume responsibility for self-care.”

The Epposi Self Care Barometer, published a year later (2013), reported on the findings from fieldwork carried out in 10 European countries on the perceived importance of self-care, which was consistently high – 87-88% everywhere but in Eastern Europe, where it reached 94%. But the findings also showed a need for increased health literacy, and better access to information and expertise:

- 9 of 10 consumers viewed self-care as vital to the management and prevention of both minor ailments and chronic conditions,
- but only 2 of 10 felt confident about managing their own health,
- and only half actually did currently self-medicate, although the rate for cold, cough, headache and allergies was higher in the UK (87%) and France (64%).

In the United States, consumer confidence in the use of over-the-counter (OTC) medications is much higher – 90% of those surveyed in 2010 agreed that medical visits for minor ailments are often unneeded because they already know from experience how to self-diagnose and self-treat. And a 2013 survey found that 81% of consumers use OTC medicines as a first response to minor ailments, with the most common OTC medicines used to relieve symptoms as follows:

- 84% for cough, cold, flu or sinus;
- 82% for pain;
- 77% for GI/acid reflux;
- 75% for allergy.

Globally, a 2009 Nielsen survey of 25,000 consumers in 50 countries found that one-third reported taking an OTC medicine either “always” or “usually” at the first sign of a minor ailment, and nearly all (95%) were at least open to the idea of doing so.

Economic Value of Self-Care

A meta-analysis of the international published evidence on the economic value of self-care through responsible self-medication as reported in the *Journal of Medical Economics* (2017) produced these clear findings:

- Physician visits are significantly reduced when a class of drugs is switched to non-prescription status, many having been unnecessary visits by patients seeking care for conditions suitable for self-care – producing large medical cost savings to third-party payers (employers or national health systems);
- In addition to freeing physician time for more serious medical problems, a switch from Rx to non-prescription status can mean large drug cost savings for government and other third-party payers;

- Reductions in patient time burdens by eliminating unnecessary trips to physician offices and improvements in their quality-of-life, functionality and productivity through instant relief of symptoms – which gains also accrue to their employers.

National Cost Savings from Self-Medication

- ***United States***

A 2012 study by Booz and Company analyzing the impact of non-prescription medications in the United States estimated that each dollar spent on such a medication saved the healthcare system \$6.50 from fewer physician office visits, with less spending on medical care (\$4.90) and prescription drugs (\$1.60). Additionally, 89 percent of physicians agreed that responsible self-care could ease the burden on them; if OTC medicines were not available, the resulting surge in office visits by about 180 million consumers would require an additional 56,000 full-time medical professionals to accommodate them.

The study also estimated total savings of \$125 to \$148 billion from:

- Avoided medical spending, chiefly for physician office visits = \$77 billion
- Fewer prescriptions for costlier, unneeded Rx medications = \$25 billion
- Lost work time to visit a physician = \$23 to \$46 billion

(Note that this does not include any estimated savings in lost productivity from reducing functional impairment or “presenteeism” for employees who are at work and self-medicating for minor ailments).

A final consideration: one-fourth of 240 million Americans who use OTC products for self-care reported that they would not seek any treatment if these medications were not available over-the-counter – choosing instead to suffer the symptoms and their effects on quality of life, functionality and productivity.

- ***Europe***

The Association of the European Self-Medication Industry (AESGP) estimated in a 2004 study that self-care through use of non-prescription medicines resulted in annual savings to national healthcare systems in seven major European Union member states of more than EUR 11.5 billion (a figure doubtless higher now after adjusting for increases in the price level).

The AESGP also used data from these same seven countries in a modeling study to demonstrate further the total economic value of self-medication – by showing the incremental benefits to be gained from increasing the level of self-medication for common minor ailments. Using a “conservative” substitution rate of 5 percent – i.e., substituting self-care for professional medical care in an additional 5 percent of cases – the study projected additional total annual savings to the same national healthcare systems of more than EUR 16 billion, by “switching” medicines from prescription to non-prescription status.

- ***UK***

A 2008 study by IMS Management Consulting in the UK found that 18 percent of total physician visits were solely for conditions judged suitable for self-care – the most common being colds and cough, back pain, heartburn and indigestion, and muscle aches. These consultations took up valuable physician time that could have been given to more serious health issues, as well as costing the National Health Service nearly 1.7 billion pounds. And 9 of 10 physician consultations resulted in the writing of a prescription, at an additional cost of nearly 400 million pounds. Additionally, there are time and productivity savings from immediate access to symptom relief at a local pharmacy.

Minor ailments were the most important reason for the 131 million sickness absences reported in 2013. The most common conditions were back, neck and muscle pain (31 million days), and coughs and colds (27 million days). And an estimated 19% of visits to accident and emergency units in 2014 were for self-treatable conditions, at an annual cost of nearly 300 million pounds.

- ***Australia***

A 2014 Australian study by the Macquarie Centre was designed to determine how much availability of over-the-counter (OTC) medicines saved the national healthcare system. Faced with the need for prescriptions to obtain 8 categories of common OTC medicines, half to nearly 75 percent of respondents would visit a physician's office to obtain their medication. These visits would cost the national healthcare system AU\$3.9 billion in physician fees from an additional 58 million doctor visits, but the greater cost – an estimated AU\$6.6 billion – would be lost productive time away from work for those visits.

The study also looked at the value of potential future switches of 11 additional categories of common prescription medicines to OTC status. Projected savings to the national healthcare system from 17 million fewer physician visits were AU\$1.1 billion, with an additional AU\$1 billion in productivity gains from reducing lost productive time associated with those visits.

- ***Mexico***

Millions of Mexican citizens receive treatment in the public health care system for common, non-serious health conditions – despite availability of effective and cost-efficient over-the-counter (OTC) products. A 2017 study by the Asociacion de Fabricantes de Medicamentos de Libre Acceso calculates the average per capita annual cost for patients who self-manage these common conditions with OTC drug products to be US\$22 – compared with US\$123 for those patients managed in the public health care sector, or six (6) times greater.

The total potential cost savings to the public health care sector are US\$6 for every US\$1 spent on OTC medicines across five leading categories of common conditions. Additionally, use of OTC products to treat these conditions would avoid lost work time for physician office visits – with potential productivity gains of US\$93 million.

For common colds alone, 7.5 million Mexicans are treated in the public health system each year at an average treatment cost of US\$72 per event, compared with a cost of US\$2 for a single treatment with OTC medicines – with potential national cost savings annually of US\$67million. Additionally, economic costs of US\$27 per capita are associated with lost productivity because of time away from work to seek treatment.

- **Japan**

Data on the overall impact of self-medication on national health care spending and total economic costs for Asia are limited to Japan. The best that can be presented are data on the burden of specific conditions that are treatable to some degree with non-prescription drugs – allergic rhinitis, cold and cough and, in part, chronic pain.

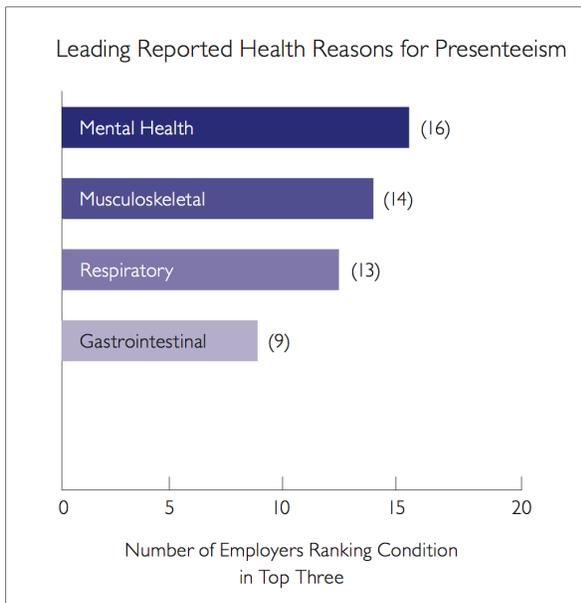
Allergic rhinitis – which is fully treatable with non-prescription medicines – is a well-documented leading reason for productivity loss in the United States. Evidence from Japan suggests that it has an important impact there, as well. Half of the workers in a pilot study of Japanese cedar pollinosis reported a 25 percent reduction in productivity during pollination season.

Chronic pain affects 10 to 20 percent of the Japanese population, with back pain the most prevalent type (72 percent of pain sufferers). Abundant research – including IHPM’s own – affirms musculoskeletal pain as the leading reason for absence from work, and the second reason for presenteeism and productivity loss at work. Data from the Japan National Health and Wellness Survey show that respondents with chronic pain had **twice the levels of absenteeism, presenteeism, and overall work impairment and indirect costs**. Self-care and non-prescription medicines have a significant part to play in the treatment of mild and some moderate pain.

Priorities for Reducing Presenteeism and Productivity Loss with Self-Care

Substantial evidence exists that self-treatable conditions also are responsible for huge but often unrecognized “indirect” economic costs of lost productivity because of functional impairment or “presenteeism” – in addition to the unnecessary direct costs of medical care and prescription drugs.

IHPM’s survey of 35 large employers with a total of 1.2 million workers revealed the leading health-related reasons for presenteeism that reduced productivity on-the-job were:



1. **mental health** issues – chiefly depression;
2. **musculoskeletal pain** – low back, arthritis and repetitive motion strain;
3. **respiratory problems** – allergies first and foremost;
4. **gastrointestinal problems** – heartburn, GERD and irritable bowel

Excluding mental health, these conditions often can be self-managed by employees with the use of OTC medicines.

The **Center for Workforce Health and Performance** in 2017 analyzed data on absenteeism, presenteeism and lost productivity costs associated with 26 chronic conditions in the United States. Twelve of these conditions have a Food and Drug Administration (FDA) approved non-prescription drug available for treatment; self-treatment rates for those 12 conditions ranged from 15 to 39 percent, and their net lost-productivity costs ranged from US\$3.4 billion to \$44.9 billion.

Conditions associated with the greatest number of lost work days and highest net lost-productivity costs:

Condition/symptom	Net Lost Workdays	Net Lost Productivity Cost
Allergies/hay fever	130.9 million	US\$44.9 billion
Chronic back/neck pain	128.1 million	US\$42.4 billion
Heartburn/GERD	92.6 million	US\$30.5 billion
Chronic pain	60.6 million	US\$20.0 billion
Irritable bowel	56.7 million	US\$18.9 billion

Findings from a four-company study in Japan were similar for pain with respect to its impact on presenteeism and lost productivity, but quite different after that in the list of costliest conditions (here ranked by monetary cost of presenteeism per worker per week):

- Neck and shoulder pain US\$433
- Back pain US\$264
- Joint pain in arms & legs US\$136
- Irritable bowel US\$84
- Cold/flu US\$35
- GI/heartburn US\$26
- Allergies US\$23

The following section provides an overview of available data on the costs of lost productivity from the self-treatable conditions associated with the greatest presenteeism – i.e., allergies, pain, and digestive disease.

Allergies

In the European Union, between 44 and 76 million of the 217 million employees suffer from allergic disease of the airways or skin – and up to 90 percent of them are untreated or undertreated. Allergies have become the most prevalent chronic disease in the EU, but – despite their high prevalence, relative severity and big impact on quality of life and productivity – they remain trivialized.

A study of the economic burden of inadequate management of allergic diseases in the EU found:

- €528 cost of absenteeism per worker annually;
- €845 to €1690 cost of presenteeism per worker annually;
- €1373 to €2218 total economic cost per worker annually;
- €55 to €151 billion cost of all workers.

And these large economic costs can be reduced at very low financial cost to both employers and national health care systems – from €5 to 8.5 billion in guideline-approved expenditures for treatment..

Two studies in the United States support the case for treating allergies with non-sedating antihistamines, which now are freely available over-the-counter at very low cost. The first study found that, over a two-year period, employees taking non-sedating antihistamines produced 8 percent more output per hour than those taking prescribed sedating antihistamines

The second study, at a large multinational heavy manufacturing company, produced the following key findings:

- A strong correlation between allergy severity and the ability to concentrate and to work without mistakes – an essential index of presenteeism – as well as between severity and reported workplace injuries;
- Significantly greater capacity of non-sedating antihistamines to reduce the burden of work impairment relative to medication regimens that included sedating antihistamines.

Pain

Self-care with non-prescription topical and systemic drugs has an important role in pain management, although chronic pain should be managed in consultation with a physician. A study presented at the International Society for Pharmacoeconomics and Outcomes Research evaluated National Health and Welfare Survey data and found that 34.5% of respondents (25,851 of 75,000 surveyed) had reported pain in the past 12 months and were dealing with it as follows:

- 51.3% taking a non-prescription medicine;
- 19.0% taking a prescription drug;
- 15.1% taking non-prescription medicine and a prescription drug;
- 14.6% untreated.

Non-prescription pain medication improves access to quick relief from a wide range of painful conditions for many sufferers, reducing the “treatment gap” for those who need but cannot access effective pain management. One in 5 Americans reported that the cost of prescription drugs prevented them from getting a necessary prescription in the previous year. Use of non-prescription medicines was associated with significantly less presenteeism or work impairment compared with untreated patients – demonstrating the value of self-medication for pain.

The American Productivity Audit estimated the presenteeism cost of pain in the US at more than \$60 billion, while the IHPM survey of 35 large employers found that musculoskeletal pain was the #2 reason for presenteeism in the work place – and #1 reason for absence from work, making it the leading overall reason for lost productivity in the workplace.

A US study of employees in the utility industry found that more than half reported back or neck pain, with 88% of the cases chronic – i.e., lasting more than 3 months. Lost productivity costs from absence and presenteeism were more than twice those of employees without pain. Back, neck and muscle pain were the leading reason for sickness absence days in the UK, at 31 million. And in Japan, chronic pain sufferers reported much greater absenteeism (4.74% vs. 2.74%), presenteeism (30.19% vs. 15.19%), and indirect costs (1488,385 yen vs. 805,634 yen).

IHPM’s own published findings from a field research study with the Pitney Bowes Corporation in the US revealed an average of one-third day more absence from work over the prior four weeks, and another 1 and 2/3 more days lost to the impact of presenteeism from mild pain (mild pain is the most prevalent level of severity, and the most self-treatable with non-prescription medicines.)

GERD (Gastroesophageal reflux disease)

OTC medications are readily available to US consumers to gain quick relief from the symptoms of widely prevalent heartburn, but the benefits of these self-treatments are not widely documented. A research study by the Nielsen Company was designed to outline and quantify these benefits for consumers and the healthcare system, measured by treatment satisfaction as well as cost savings.

Using the Nielsen Heartburn Ailment Panel of 25,000 individuals suffering from heartburn, the study found:

- 94 percent satisfaction level for those using OTC heartburn medications;
- Consumers realized per capita annual savings of \$174 in prescription costs and physician office visits;

- Total annual savings to the healthcare system from decreased physician office visits from consumer access to OTC heartburn medications were estimated at \$757 million.

An employer research field study by IHPM on workplace productivity calculated the total economic cost impact of GERD – revealing that the “dollarized” cost of lost productivity per participant was roughly triple the combined cost of medical care and pharmacy:

- Mean annual medical care cost \$ 841
- Mean annual pharmacy cost \$ 895
- Mean lost productivity cost \$5193

A study of the impact of GERD on absenteeism, presenteeism and productivity was carried out in six European countries, including major economies Germany, the UK and Spain. Findings were as follows:

	<u>Germany</u>	<u>Spain</u>	<u>UK</u>
Absenteeism (hrs/week/patient)	3.2	2.1	0.4
Presenteeism (work hrs lost/week at work)	5.7	4.7	3.5
Sum of monetary value of hrs lost/week/patient	€217	€119	€55

The UK was lowest on all scores, while Germany was highest.

A separate study of GERD in France, of patients with a significant symptom burden (moderate-to-severe in virtually all patients) found significant impairment of work which increased with the symptom burden. Over a 12-month follow-up period after therapy, the average total cost per patient was €5237, of which almost 90 percent (or €4674) was due to lost work productivity.

The top three priority health issues for self-care just discussed are made concrete in a study done at **Lockheed-Martin**, and published by the Harvard Business Review; allergies, low back pain and GERD – collectively and in that order – were calculated to have cost the company **US\$3.25 million annually** in lost productivity resulting from presenteeism:

Condition	Prevalence %	Average Productivity Loss %	Aggregate Annual Loss \$
Chronic lower-back pain (without leg pain)	21.3	5.5	858,825
Allergies or sinus trouble	59.8	4.1	1,809,945
GERD (acid reflux disease)	15.2	5.2	582,660

Source: Debra Lerner, William H. Rogers, and Hong Chang, at Tufts-New England Medical Center

In Conclusion

One of the greatest values of OTC or non-prescription medicines has been to decrease the “treatment gap” mentioned earlier, which often arises from barriers – financial, practical and psychological – that keep patients from receiving needed medical care or obtaining

prescription medicines. A U.S. survey found that the cost of prescription drugs and doctors' appointments – as well as inconvenient office hours and difficulty in getting a doctor's appointment – were all barriers for one-in-five (1-in-5) respondents.

Accessibility and convenience of OTC medicines enable their quicker use in treating conditions that require early intervention to obtain the best outcome. OTC products do not have the same barriers to use as prescription medicines, but there remain treatment gaps for conditions that could, but do not yet, have a non-prescription medicine available. One such large treatment gap identified in the United States is for hypercholesterolemia (in the UK, medications were switched from Rx to OTC status to help close this gap).

A 10-year US cost-effectiveness study estimated that a switch from Rx to OTC status for statins would dramatically decrease the number of major cardiovascular events – reducing healthcare costs by nearly \$11 billion in the process. This points up the need for a rational, national approach everywhere to making OTC switches part of the solution to overarching issues of access, safety and cost.

Self-care, including ready access to OTC products for prevalent self-manageable minor ailments, should be a foundational part of wellness and prevention as well as of treatment for those ailments. As populations age and sedentary lifestyles increase, the economic burden of chronic illness will consume a growing share of GDP around the globe – not just in more developed nations. This will make an increased role for self-care critical to the financial sustainability of health care systems everywhere.

Making self-care a global health policy priority coincides with consumer desires for more control over their health. More than half of these consumers also are employees, and their employers also will benefit from having them less impaired by minor day-to-day health problems and, therefore, more productive. Employers could play a bigger role in helping to foster more sustainable health care systems. This calls for greater collaboration among all major stakeholders including governments and medical providers – who also can gain from having more time and attention to give to serious health problems.

A new kind of “triage” system that starts with self-care education as a key part of individual responsibility for health would help to rationalize prevention and treatment of chronic health issues, with the added social and economic benefits of increased consumer welfare and employee productivity. This will require integration of self-care with both primary care and workplace occupational health, into a “model” designed to optimize the use of health care resources and deliver better health and economic outcomes.

Consumer behavior ultimately will be key to determining how much value self-care can contribute to a more integrated and cost-effective health system – as well as a healthier, more productive work force. A new global survey of consumer attitudes and practices regarding self-care, just completed by IPSOS, shows progress toward people taking more responsibility for their own health; much remains to be done, however, to have them rely less on physician visits and prescription medicines for some of the most prevalent and self-treatable conditions discussed in this paper.