The Socio-economic Impact of Untreated Mental Illness

Part 1 in our series "Why GCC Governments should invest more in Mental Health"

Foreword

Within the GCC, approximately 15% of the population are believed to suffer from mental disorders in any given year[1]. Common mental disorders include anxiety, depression, eating disorders, dementia and substance abuse (among others). COVID-19 has exacerbated the burden of mental illness worldwide and in the GCC alike.

In a new thought leadership series, we build upon our previous report released in conjunction with the World Government Summit on "**Making mental wellbeing a national priority**", and look at why governments should invest more in mental health. In this report, we examine **the socio-economic case for investing in mental health** care amidst the rise in the burden of mental illness globally and across the GCC. By drawing on the best evidence globally and regionally, we provide useful insights for policy and decision-makers on the value of improving access to mental health care.

In this series, we will address:

Part 1
The socio-economic impact of untreated mental illness

Part 2
Improving the mental health of children and adolescents in the GCC

Part 3
The role of digital tools in scaling up mental health

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What is the burden of mental illness in the GCC?

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Definitions

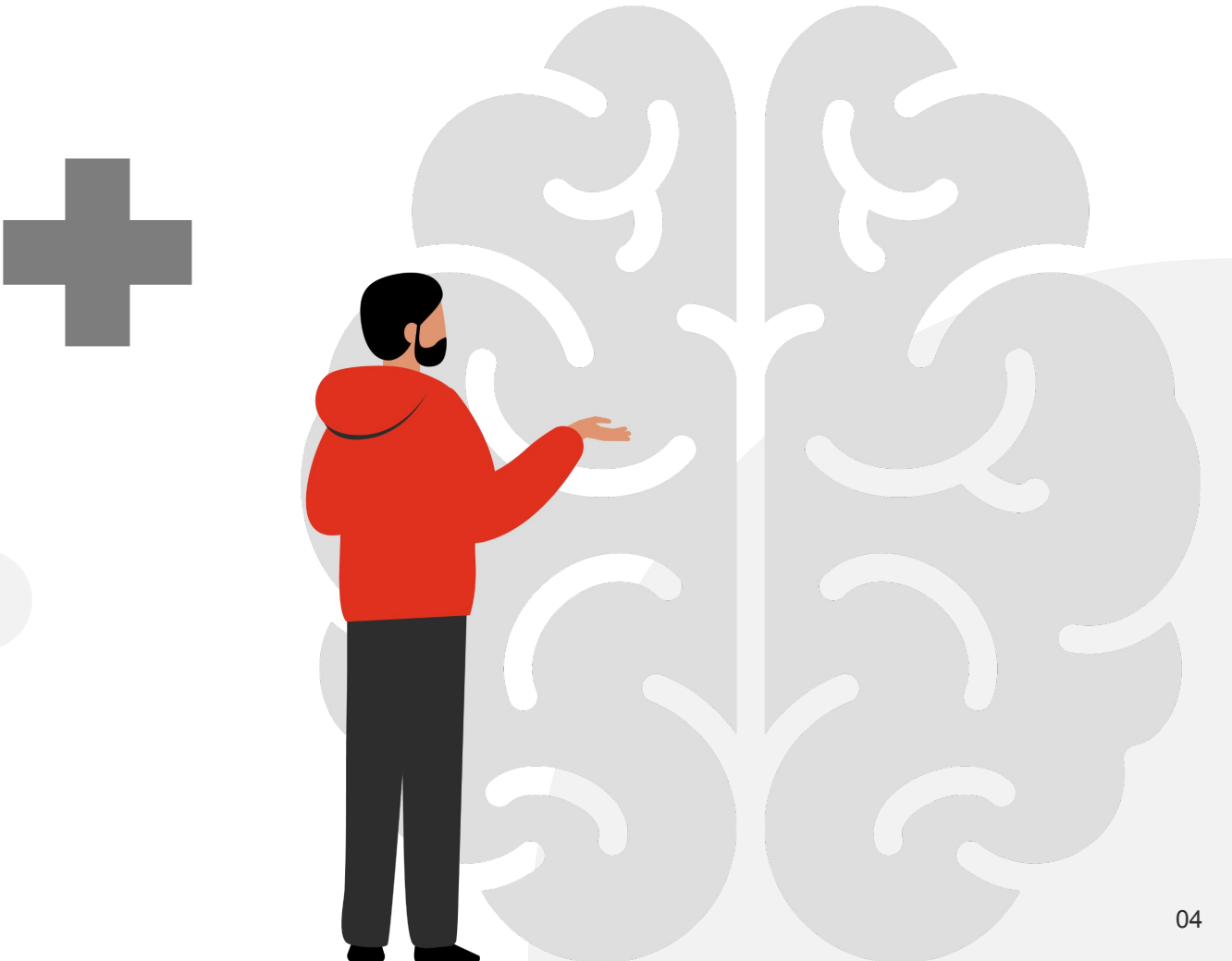
It is important to distinguish between mental health and mental illness, as the terms are often used interchangeably but are not exactly the same. Any individual can experience poor mental health and not be diagnosed with a mental illness, and similarly a person diagnosed with mental illness can go through periods of wellness.

Mental health

The World Health Organization (WHO) describes good mental health as not just the absence of a specific mental disorder but as a state of holistic wellbeing: “Mental health is a state of wellbeing in which an individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.” Social, psychological and biological factors influence a person’s mental health[2].

Mental illness

Common mental disorders as per the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) include depression, bipolar affective disorder, schizophrenia, anxiety disorders, dementia, substance use disorders, intellectual disabilities, and developmental and behavioural disorders with onset usually occurring in childhood and adolescence, including autism[3].



Even before the pandemic, WHO reported that anxiety and depression alone afflicted 284 million and 264 million people respectively[4]. Yet the scale of the problem is likely to be larger as many never seek help from a qualified professional. In Saudi Arabia, for example, 80% with severe mental disorders do not seek treatment[5].

Every year, 12 billion productive days are lost due to depression and anxiety, costing the global economy $1trillion in lost productivity[6]. Yet, less than 2% of the global health budget is spent on mental health[7]. In the GCC, mental health care systems still suffer from structural challenges, including the shortage of mental health professionals.

Additionally, studies have found that for every $1 invested in scaled-up treatment for depression and anxiety, there is a $4 return in improved health and productivity[8].

Clearly, there is a strong economic case for governments and businesses alike to invest more in increasing access to mental health care for citizens in the GCC.

$1 tn **per year in lost productivity globally[9]**

2% **only of health budgets spent on mental health[10]**

4:1 **return on investment[11]**

$3.5 bn **per year in lost productivity in GCC***

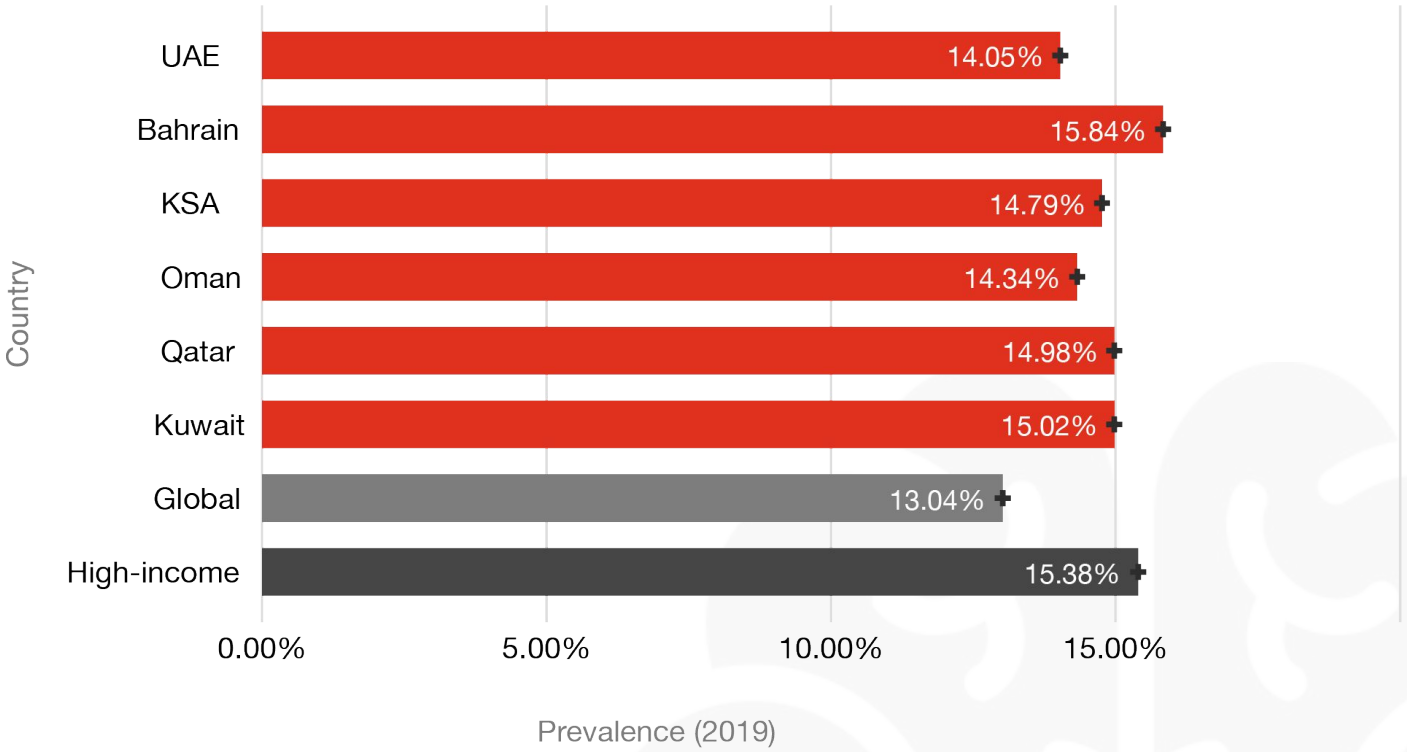
2.58 **psychiatrists per 100,000 population across the GCC countries[12]**

The Global Burden of Disease[13] study estimates that mental disorders are just as common in the GCC as they are worldwide, yet tend to be underreported due to poor awareness, limited help seeking support, shortage in mental health care professionals and limitations in appropriate and equitable financing.

15% **of people in high-income countries suffer from a mental illness**[14]

75% of people who experience mental health difficulties **do not seek professional help**[15]

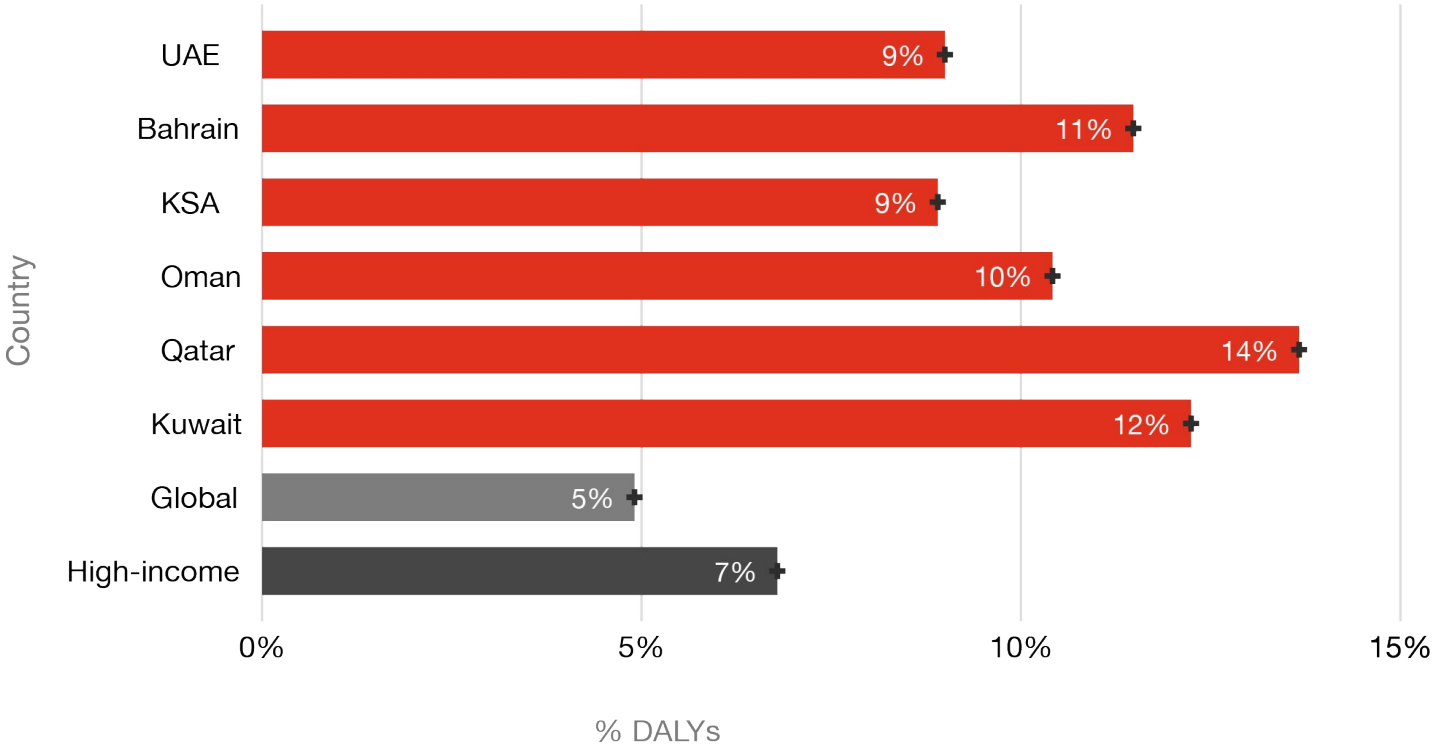
Estimated prevalence of mental disorders (IHME, 2019)



The GCC is witnessing an increase in non-communicable diseases, including mental illnesses. According to the Global Burden of Disease study, the contribution of mental disorders to the total burden of disease ranged between 9% and 14% in the GCC, in comparison to 7% in high-income countries globally[16].

If not properly addressed, mental disorders will continue to have an increasing toll in the region.

% of Disability-adjusted Life Years lost due to mental disorders (IHME, 2019)



Recent data from the Saudi National Mental Health Survey published in 2021 indicates[17]:

34%

of Saudis meet the criteria for a mental health condition sometime in their life.

40%

of Saudi youths meet the criteria for a mental health condition sometime in their life.

80%

of Saudis with several mental health disorders do not seek any treatment.

4%

of the Ministry of Health budget is allocated to mental health.

Mental health in children and adolescents

Poor mental health can have drastic negative economic consequences, both in terms of lost wages due to diminished productivity and increased medical costs. This is one of the main reasons why preventative measures are essential, especially in childhood to promote positive well-being and healthy emotional development.

Globally, one in seven children between the ages of 10-19 suffer from a mental disorder[18]. The CDC describes childhood mental disorders as “serious changes in the way children typically learn, behave, or handle their emotions, which cause distress and problems getting through the day.”[19]

Depression, anxiety, and behavioural disorders are among the leading cause of illness and disability for adolescents worldwide. Among children aged 15-19, suicide is the fourth leading cause of death.[20]

A recent meta analysis study[21] on **children and adolescents in the GCC reported high rates of:**

- Depression (6.12% - 45.09%)
- Anxiety (17.27% - 57.04%)
- Stress (43.15%)
- Disordered eating (31.55%)
- ADHD (12.83% - 26.14%)

The impact of COVID-19

COVID-19 has exacerbated the burden of mental illness worldwide and in the GCC alike. As the pandemic has progressed, there has been a significant impact on people’s mental wellbeing due to factors such as unemployment, economic recession, distress, grief, uncertainty, and lockdowns.
A survey conducted by Kuwait University[22] in 2020 of more than 14,000 participants showed that the pandemic has had a significant impact on the mental health of most GCC countries; 25% suffered from severe depression, 50% had mild to moderate anxiety, and 50% had mild to moderate PTSD. Females were also found to be more susceptible to depression and anxiety, possibly due to an increased burden of work from home and homeschooling measures.

A study conducted in the UAE with 4,426 participants, found that around 43–63% of the participants reported feeling “horrified, apprehensive or helpless”[23]. Women, young people, part time workers, and university graduates were more likely to report a higher psychological impact caused by the pandemic.

A similar study from the UAE[24] conducted during the pandemic found a higher occurrence of depressive and anxiety symptoms in their sample when compared to pre-pandemic rates. Being younger, female, and having a history of mental health problems increased the likelihood of having symptoms.

The findings of these studies were also corroborated by mental health professionals. In Dubai, there was an observed increase in clients coming in with depression, anxiety, and PTSD being caused by financial insecurity, health concerns, and feelings of isolation, panic and grief[25].

While there is a growing interest in supporting mental health in the GCC[26-31], more investment is needed to comprehensively and systematically eradicate the barriers to mental health.

Recent mental health initiatives by GCC governments

2013

Qatar National Mental Health Strategy (QNMHS) was launched setting out a vision for a mental health system in Qatar supported by integrated mental health services with access to the right care, at the right time and in the right place.

2014-2018

Qatar's first mental health website "sehanafsia.moph.gov.qa" was launched, offering online support to those that need it.

Qatar's Ministry of Public Health developed the Qatar Mental Health Attitudes and Awareness Index (QMHAAI) with the purpose of identifying a more accurate understanding of the attitudes and awareness to mental health in Qatar.

2019

UAE's National Policy for the Promotion of Mental Health was launched.

KSA launched the "Qareebon" app to provide mental health counseling via texting supervised by specialised staff.

2020

Abu Dhabi's Department of Health announced an Integrated Mental Health Plan including a new Model of Care.

Abu Dhabi Public Health Centre launched a mental health awareness campaign.

2021

KSA launched the "Your Mental Health Comes First" initiative to raise awareness about workplace anxiety, depression, and burnout.

Abu Dhabi set up the "Istijaba" hotline to support individuals suffering from mental health pressures during COVID-19.

Dubai Health Authority (DHA) upgraded the essential benefit plan to include mental health care (subject to limitations).

2022

KSA published the Saudi National Mental Health Survey.

What are the barriers to mental health care in the GCC?

02

1 Stigma towards mental illness

Stigma towards mental illness is a major barrier to accessing mental health care in the GCC. Stigma is often a result of misconceptions and limited understanding of the diagnoses, social and cultural beliefs, and stereotypical media portrayals of people with mental illnesses[32-34].

Poor knowledge and negative attitudes and beliefs surrounding mental illness holds individuals back from seeking the professional help needed. It also discourages them from joining mental health professions such as psychiatry and clinical psychology[35], which perpetuates the shortage in the mental health workforce in the region. A survey conducted by Aetna with 1000 participants in the UAE found that approximately 30% of participants were reluctant to avail their mental health benefits due to the fear of being judged by their employers and harming their career progression[36].

2 Financing of mental health care

Access to mental health care in the GCC is also made difficult by limited insurance coverage for mental health conditions and by unaffordable prices of mental health services. There is also a lack of adequate reporting in the GCC for certain metrics. For example only two countries, Bahrain and Qatar, have reported data on government spending for mental healthcare in the WHO Mental Health Atlas[37]. However, we know that there are disparities in mental health coverage among different groups of the population, with expatriates - who make up a significant proportion of the population - often facing more restrictive coverage on mental health services in their private insurance policies[38].

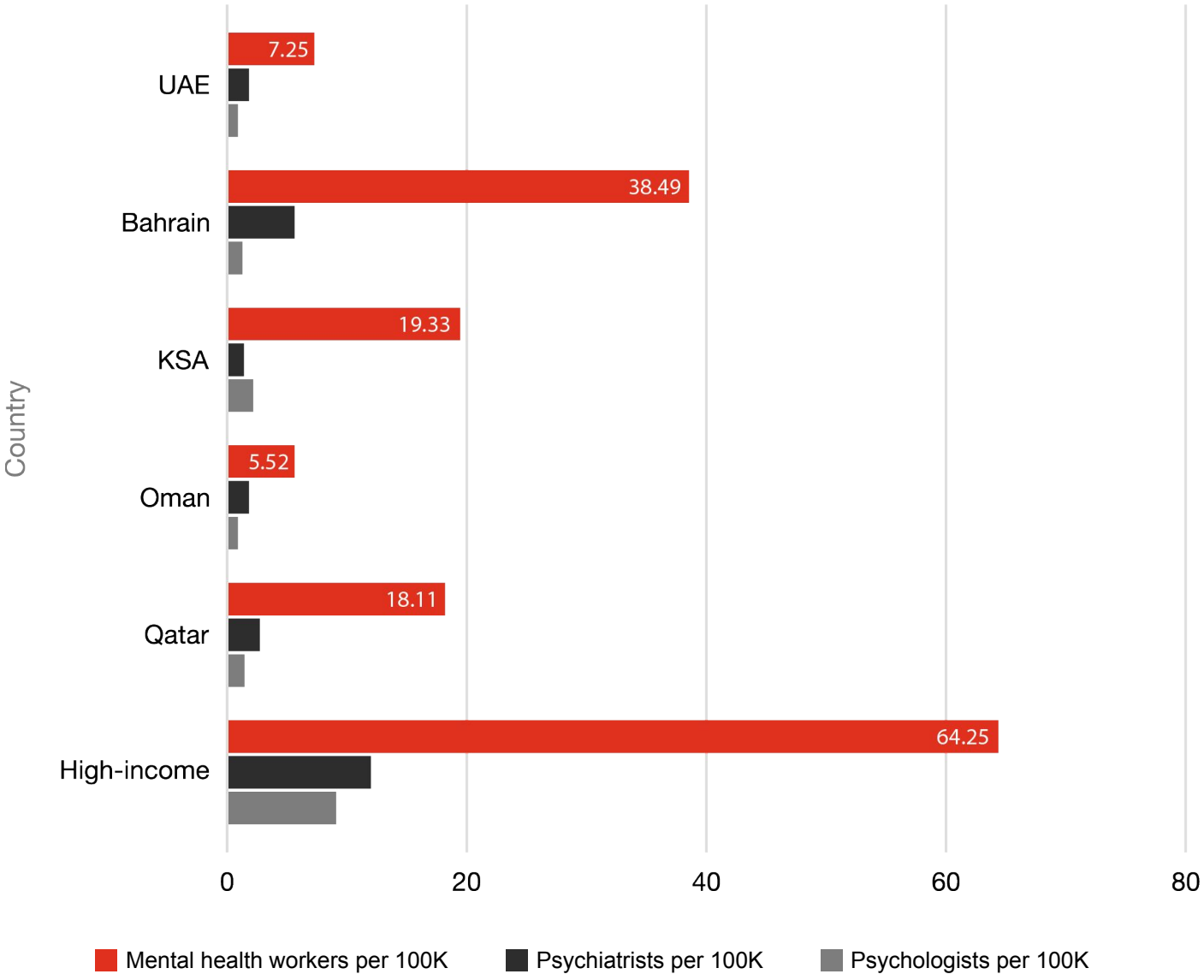
Paying out of pocket is not a financially viable option for most people. The cost of mental health services varies across and within GCC countries.

For example, in Saudi Arabia one session for psychotherapy can cost between $106 and $212 USD[39]. In the UAE, the cost of a psychiatric consultation may range between $82 and $163, and that of a psychotherapy session between $82 and $272 [40] .

3 Shortage of mental health workers

The supply of mental health services in the GCC is currently suboptimal. According to WHO's 2017 Mental Health Atlas, the number of mental health workers ranged between five and 38 among GCC countries, compared to an average of 64 per 100,000 among high-income countries globally. The average number of psychiatrists across the GCC countries is 2.58 per 100,000 of the population[41]; for comparison, the US has the highest ratio of psychiatrists in the world at 16 psychiatrists per 100,000 people, however, even this number is considered inadequate to cater to the increase in mental health conditions[42].

Availability of mental health services



What is the socio-economic impact of mental illness?

03

We performed a high-level estimation of the economic impact of untreated mental illness in the GCC working population using “lost productivity” as a key outcome. **Every year the GCC loses at least 37.5 million productive days due to mental illness, equivalent to $3.5 billion**. Not quantified in this estimation are the health-related and social impacts of untreated mental illness on patients and their caregivers.

Economic impact of untreated mental illness in the GCC

54.9 mn[43]
GCC population

2.5 mn
GCC untreated working population

37.5 mn
Productive days lost per year

$3.5 bn
Productivity losses per year

Inputs/ Assumptions

- Working population: **22.2 mn**[44]
- Mental illness prevalence: **15%**[45]
- Mental healthcare seeking gap: **75%**[46]
- Research shows that, at minimum, the annual productive days of individuals living with mental illness such as depression is **15 days less** than the general population[47]
- GCC GDP per capita: **$24.6K**[48]
- Number of working days per year: **260**

Health and social impacts of untreated mental illness

- **Quality of life** of individuals with mental illness and their caregivers
- **Criminal justice costs**
- **Mortality associated with self-harm**
- **Educational outcomes**

There is a wealth of evidence globally that investing in mental health makes economic sense. Treating mental illness has a significant socio-economic impact that is usually captured in terms of:

Improved quality of life

A seminal study published in the Lancet Psychiatry estimated that scaling up treatment for depression and anxiety across the 36 most populated countries worldwide by the year 2030 would cost $10 billion per year and yield an extra 43 million years of healthy life, valued at $709 billion. This translates to a benefit-to-cost ratio of 3.3-5.7 to 1[49].

In the US, a study has found that expanding mental health coverage for previously uninsured people was associated with a gain of 0.9 Quality-Adjusted Life Years (QALYs) per person[50].

Another study has found that the introduction of the Affordable Care Act in 2010 and Mental Health Parity Act in 2008 is estimated to have saved 0.01 QALYs per capita[51]. In Spain and the UK, implementing collaborative mental healthcare was associated with up to 0.05 more QALYs per patient over 1 year compared to those receiving standard mental healthcare[52-53].

Reduced mortality associated with self-harm

Providing insurance to those who were previously uninsured in the US was associated with a gain of seven months of life per person[54]. In states that implemented access to parity laws, a 5% reduction in the suicide rate was observed[55]. The US Air Force saw a reduction of its suicide rate by 0.646 deaths per 100,000 after implementing a suicide prevention initiative[56]. The UK saw 2.8-3.52 fewer deaths per 10,000 people after increasing community health services across all mental health providers in the NHS[57].

Improved workforce productivity

Worldwide, every year more than $1 trillion - equivalent to more than 12 billion working days - are lost due to mental illnesses[58]. Productivity losses refer to both absenteeism (days absent from work) and presenteeism (impaired productivity while at work).

Studies estimate that on average an individual suffering from depression loses 4-15 days a year due to absenteeism and 11-25 due to presenteeism. As for anxiety, time lost per person per year is 8-24 days in absenteeism and 12-26 in presenteeism[59].

Reduced criminal justice costs

The notion that the mentally ill are more likely to commit crimes is a common misconception. In reality research has found that they are at an increased risk of being victims of crime. A US study estimates this risk to be six to 23 times compared to people without mental illness[60]. Even so, mental illness still contributes to the burden on the criminal justice system. Every dollar invested in substance abuse treatment is estimated to yield a return of $4-$7 in terms of reduced crime, criminal justice costs, and theft[61]. In the UK, an alcohol misuse intervention in primary care is estimated to save £105 per patient in terms of reduced crime[62].

Mentally ill inmates account for a significant portion of the incarcerated population. In Canada, the prevalence rate of mental illness in adolescents is 15-20%, however 70% of incarcerated adolescents have a mental illness[63]. Adhering to treatment had also been shown to reduce incarceration by 0.6-1.08 days in patients with schizophrenic and bipolar disorders after hospitalisation[64].

Improved educational outcomes

Chile has implemented one of the largest school-based mental health programs worldwide which has been associated with a GPA increase of of 2.96 percentile points[65]. In the US, integrated mental health in school health centers was associated with a 0.5 point improvement in students' GPA[66].

A study of UAE students with depression, anxiety and low academic performance reported a significant improvement in GPA and reduction in attendance warnings following an eight week online Cognitive Behavioral Therapy intervention[67].

Which interventions present good value for money?

04

There is a growing body of evidence on the cost-effectiveness of key interventions to address priority mental health issues across the world; yet such interventions remain underutilised in the GCC region.

Decision-makers can benefit from knowing which mental health interventions are most strongly supported by evidence of success, and exploring relevant case studies.

Definition of cost-effectiveness[68]:

An intervention is deemed to be cost-effective if the cost of a healthy year of life gained is lower than society's willingness-to-pay for an extra year of healthy life. The willingness to pay threshold is typically estimated to be within 1 to 3 times the GDP per capita.

The most cost-effective interventions include[69-71]:

1

Measures to combat perinatal depression and anxiety:

Maternal depression and anxiety screening through health visitor support and access to psychological therapies are among the most cost-effective mental health interventions[72], costing between $11k and $20k per added QALY[73].

2

Child and adolescent school-based screening and psychological intervention:

School-based screening plus cognitive-behavioral therapy (CBT) are among the most cost-effective mental health interventions[74], costing between $1k and $5k per healthy life year gained[75].

3

Adult screening and psychological interventions:

In adults, strong evidence supports screening plus psychological interventions for mental disorder prevention, particularly in primary care settings[76,77], at a cost of approximately $1.7K per added QALY[78].

4

Model of Care changes:

Integrating mild to moderate cases into primary care showed a savings of €2132 per patient over a two year period[79]. Further adopting a collaborative care approach within primary care was found to save €691 per patient[80].

5

Workplace interventions:

Workplace interventions of improving access to exercise and psychological support have been shown to yield a positive return on investment[81] of up to $257 per worker[82].

Case study 1: Maternal screening and early intervention, Australia

Intervention

Australia has invested over A$120 million into its National Perinatal Depression Initiative (NDPI) to provide routine and universal screening for depression for women during the perinatal period. Screening is offered once during pregnancy and again about four to six weeks after birth by a range of primary and maternal health care professionals, and the appropriate follow up treatment is provided for women with or at risk of perinatal depression. Follow up treatment may include focused psychological treatment, counselling services, networks of support groups for new mothers, acute inpatient mental health care and community-based care and support[83].

Impact

The NDPI reduced inpatient psychiatric admissions in New South Wales and Western Australia by 50% in the first year post birth[84].

In a review of similar studies of perinatal mental health interventions[85], programs that incorporated both screenings as well as treatment were found to have higher QALY gains and be cost effective, having a cost per QALY between £8,642 and £15,666. This is in line with the cost-effectiveness threshold range between £20,000 and £30,000 set by NICE[86].

Case study 2: School based screening program, US

Intervention

School-based mental health interventions have been shown to have a positive impact on students' behaviour, wellbeing, resilience, self esteem, and also reduce their mental health symptoms[87]. School based intervention programs would typically include screening for the students followed by a clinical evaluation and possible referral or treatment for those who screen positive. One such initiative was the Developmental Pathways Screening Program (DPSP) conducted in selected public schools in the US[88].

Impact

Students underwent screening for behavioural and emotional health symptoms and those who screened positive were further evaluated and referred to the relevant services. The cost-effectiveness was estimated to be $106.09 per student when at least 20% of the students were successfully evaluated and linked to services.

School based mental health initiatives are also recommended by the WHO as a cost–effective mental health intervention initiative with an incremental cost-effectiveness ratio of $1000-5000 per healthy life year gained[89].

Case study 3: Adult depression screening in primary care, US

Intervention

Depression takes a severe toll on residents of New York City and ranks second only to ischemic heart disease in terms of Disability-Adjusted Life Years (DALYs). In order to tackle the burden of this illness, a two stage screening process followed by treatment in a collaborative care model was proposed for residents between the ages of 20 and 70 in primary care[90]. Within primary care, patients would be universally screened using the Patient Health Questionnaire-2 (PHQ-2). Those who screen positive would be screened further using the PHQ-9. Those who still screen positive would then be provided treatment with a collaborative care approach.

Collaborative care would involve a team of practitioners monitoring the patient's severity, proactively following-up, regular consultations, and treatment changes for patients who are not showing signs of improvement. Collaborative care models have been shown to be beneficial in treating depression as they lead patients to have significantly greater adherence to treatment, more active adjustment of treatment in response to measured improvement, and better outcomes.

Impact

By implementing this program, the average 20 year old would gain 0.38 QALY over the next 50 years of their life. The incremental cost-effectiveness ratio was found to be $1,726 per QALY.

Case study 4: Integration of mental health care in primary care, Netherlands

Intervention

The Dutch mental healthcare system has undergone drastic changes in the past decade in order to improve its accessibility, affordability and quality. Prior to the reforms, mental health patients were mainly receiving care in speciality settings. The aim was to treat those patients with conditions having low to moderate complexity and a low risk of harm or suicide in a shorter duration where their GPs act as gatekeepers[91].

Further research in the Netherlands on specifically having a collaborative care model to treat depression within primary care also showed promising results[92]. In this model, an integrated intervention based on the severity level of depression in the patient is delivered by a team consisting of the GP, a consultant psychiatrist, and a care manager.

Impact

The estimated savings from this intervention over two years was €2,132 per patient. There was no significant change in health outcomes for the patients from switching from the old system to the new reformed system.

The adoption of an integrated treatment approach in a collaborative care model was found to be less costly by €691 per patient and more effective compared to the usual care for depression in a primary care setting.

Case study 5: Workplace screening and Cognitive Behavioral Therapy (CBT), UK

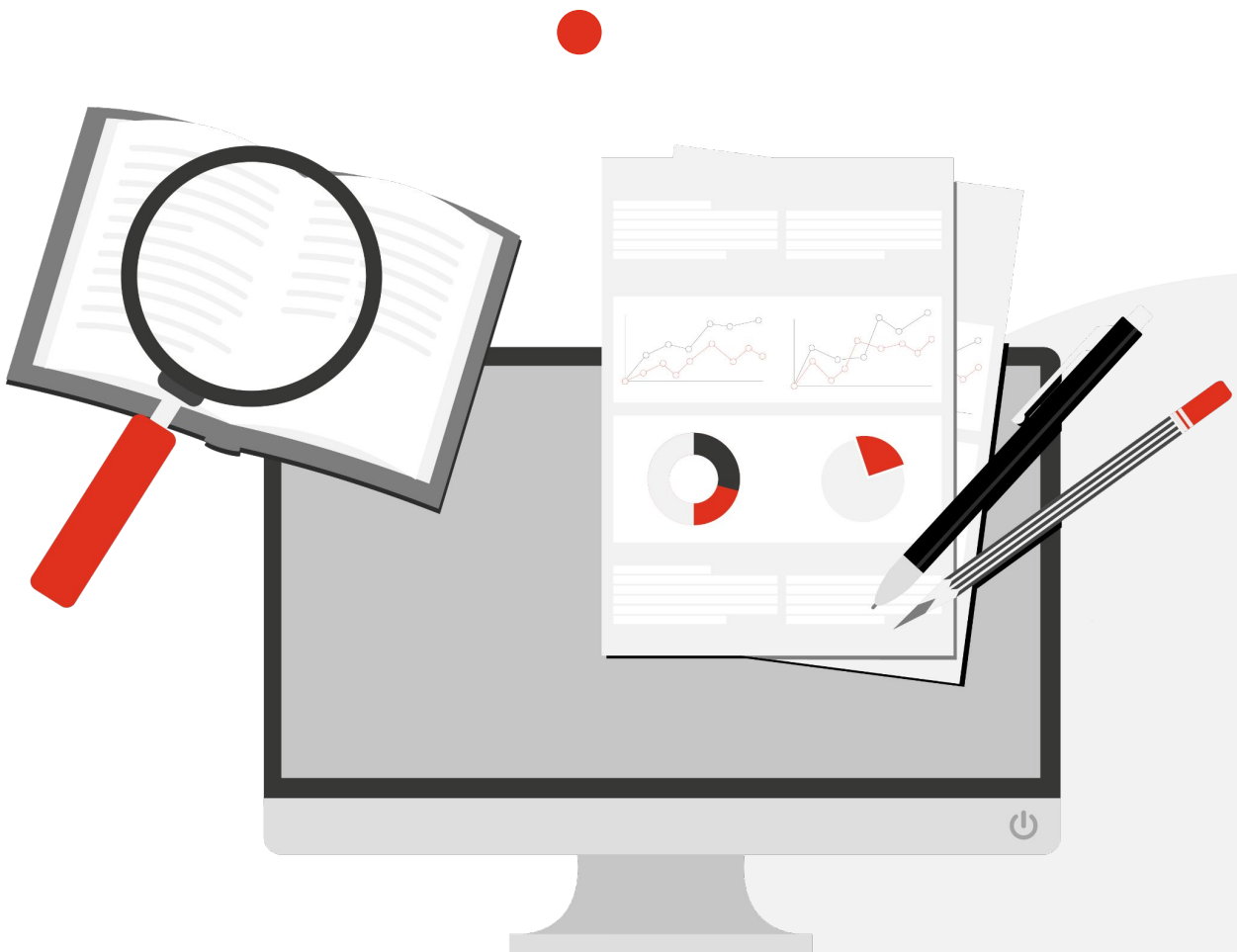
Intervention

There are substantial losses to employers due to lost productivity caused by mental health issues such as anxiety and depression. This is mainly from absenteeism (missed work), and presenteeism (diminished productivity during work). The estimated cost of lost productivity due to depression and anxiety is $1 trillion globally per year.[93]

An intervention was proposed by McDaid and colleagues[94] for a company with 500 white collar workers in the UK. The intervention consisted of a screening questionnaire, followed by care for those who screen positive for depression and/or anxiety disorders. Those identified as being at risk or having depression or anxiety disorders would be offered a course of CBT consisting of six sessions delivered over twelve weeks. CBT is a talk therapy commonly used as a treatment for depression and anxiety by trying to change the way in which one thinks and behaves and is usually delivered over five to 20 sessions[95].

Impact

The estimated net gain from this intervention over two years was £83,000, equivalent to £166 per worker. This was in line with a review article of similar interventions that concluded a net benefit per worker of $30 after one year and $257 after two years[96].



What can governments do to support mental health?

05

Achieving optimal mental health for the population requires collaboration among stakeholders of all sectors. But as the “ultimate guardian” of the public’s health, governments are in a position to take the lead responsibility in making sure mental health is promoted and care is accessible to all those who need it, setting the example for businesses and local communities to follow.

We propose a multi-component framework, adapted from the WHO Building Blocks of Health Systems[97], that can aid GCC governments in strengthening their mental health systems.

The six components of mental health systems:

1. **Mental Health System Governance**
2. **Mental Health Information**
3. **Mental Health Awareness and De-stigmatisation**
4. **Mental Health Workforce**
5. **Mental Health Service Delivery**
6. **Mental Health Care Financing**

Mental Health System Strengthening Framework

To activate the Mental Health Systems Strengthening Framework, GCC governments can consider a number of essential steps:

1 Strengthen Mental Health System Governance

1. Set up a national vision for mental health that promotes equity, access and prevention
2. Conduct an extensive review of currently available regulatory tools that specifically address mental health
3. Identify key internal and external stakeholders (e.g. sectors representatives, patient representatives, clinicians, hospital managers, SMEs)
4. Consult with the identified internal and external stakeholders to update the current regulatory framework
5. Develop, update, communicate and implement national mental health regulations, policies, strategies and programs
6. Collaborate with other GCC governments to establish a high-performance mental health and wellbeing innovation and research hub

2 Collect Mental Health Information

1. Run a baseline assessment survey (to be followed by periodic surveys) and leverage available health information systems to collect a core set of mental health indicators. The Saudi National Mental Health Survey in 2019 is an example of the first step in the right direction.
   Key indicators should address:
   - Mental disorders prevalence
   - Availability of mental health interventions and services
   - Healthcare utilisation and health outcome data (including suicide rates and levels of disability)
   - Epidemiological, socio-demographic, cultural and religious factors, social and economic outcome data (including levels of educational achievement and employment among individuals with mental illnesses)
2. Set a core list of KPIs for continuous monitoring and incorporate mental health into health outcome measurement by 2025
3. Assess and improve current research capacity in mental health

3 Improve Mental Health Awareness and Prevention

1. As part of the baseline assessment survey, collect information on the current level of mental health stigma, awareness and knowledge among the general public (and repeat every one/two years)
2. Design relevant, evidenced-based and culturally sensitive awareness programs that target the general public (at least annually)
3. Invest in preventive measures (such as maternal mental health care and child and adolescent early screening and interventions which have been found to be cost- effective) to help reduce the risk of developing mental disorders

4 Strengthen the Mental Health Workforce

1. As part of the baseline assessment survey, evaluate the volume and educational level of the current mental health workforce
2. Promote mental health professions to high-school students
3. Encourage the recruitment of a qualified mental health workforce
4. Provide routine trainings for primary care staff to cater for the increased mental health needs at the community level
5. Encourage continuing education (higher education and specialisation in mental health aspects)
6. Revisit and redraft (if needed) the labor law to ensure workforce welfare

5 Improve Mental Health Service Delivery

1. As part of the baseline assessment survey, identify the gap in the current supply of mental health services (including inpatient beds, outpatient clinics, primary care centers, etc…)
2. Based on best-practice, encourage the allocation of the required inpatient beds to serve the population
3. Develop and/or strengthen equitable, accessible and affordable community-based mental health services
4. Ensure the usage of cost-effective services such as collaborative mental health care, child and adolescent school-based screening, maternal depression and anxiety screening, and improving access to exercise and psychological support

6 Improve Mental Health Care Financing and Coverage

1. Set up mechanisms for tracking mental health care expenditure
2. Assess current coverage of mental health services (e.g.% out-of-pocket) and the impact this has on individuals' social and economic wellbeing
3. Allocate a budget that is required to implement evidence-based mental health plans and interventions
4. Include priority mental disorders in the national/social insurance reimbursement schemes

By following these six steps, governments across the GCC region can better serve their citizens by providing increased and more efficient access to improved and cost-effective mental health services and resources. The economic impacts make a clear case for intervention and investment, and further support the social duty of governments to aim to improve the overall level of mental health in their populations and support sufferers of mental illness. Given the scale of change and transformation across our region, we are in a unique position to raise the bar and become global innovators and leaders in this field through smarter policymaking and investment.

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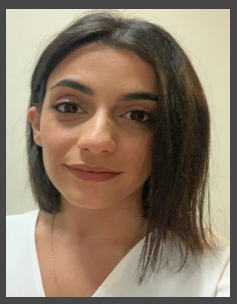

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CDC0680/ 062022