



# *Survey Insights:* Growth Opportunities Abound, It's Wheels Up for Telemedicine

# Growth Opportunities Abound, It's Wheels Up for Telemedicine

The telemedicine industry has been picking up steam over the last few years, and now COVID-19 has fueled it into mainstream adoption. To assess the sustainability of this growth, we recently surveyed 1,015 consumers across the U.S., spanning ages 25 through 65+, and a wide range of household incomes. Through our analysis, we have identified multiple vectors that will drive further growth, and we continue to view telemedicine as one of the most transformative themes in healthcare tech. **This industry's rapid growth has been a key contributor to the ROBO Global Healthcare Technology and Innovation Index (HTEC) outperformance this year.**

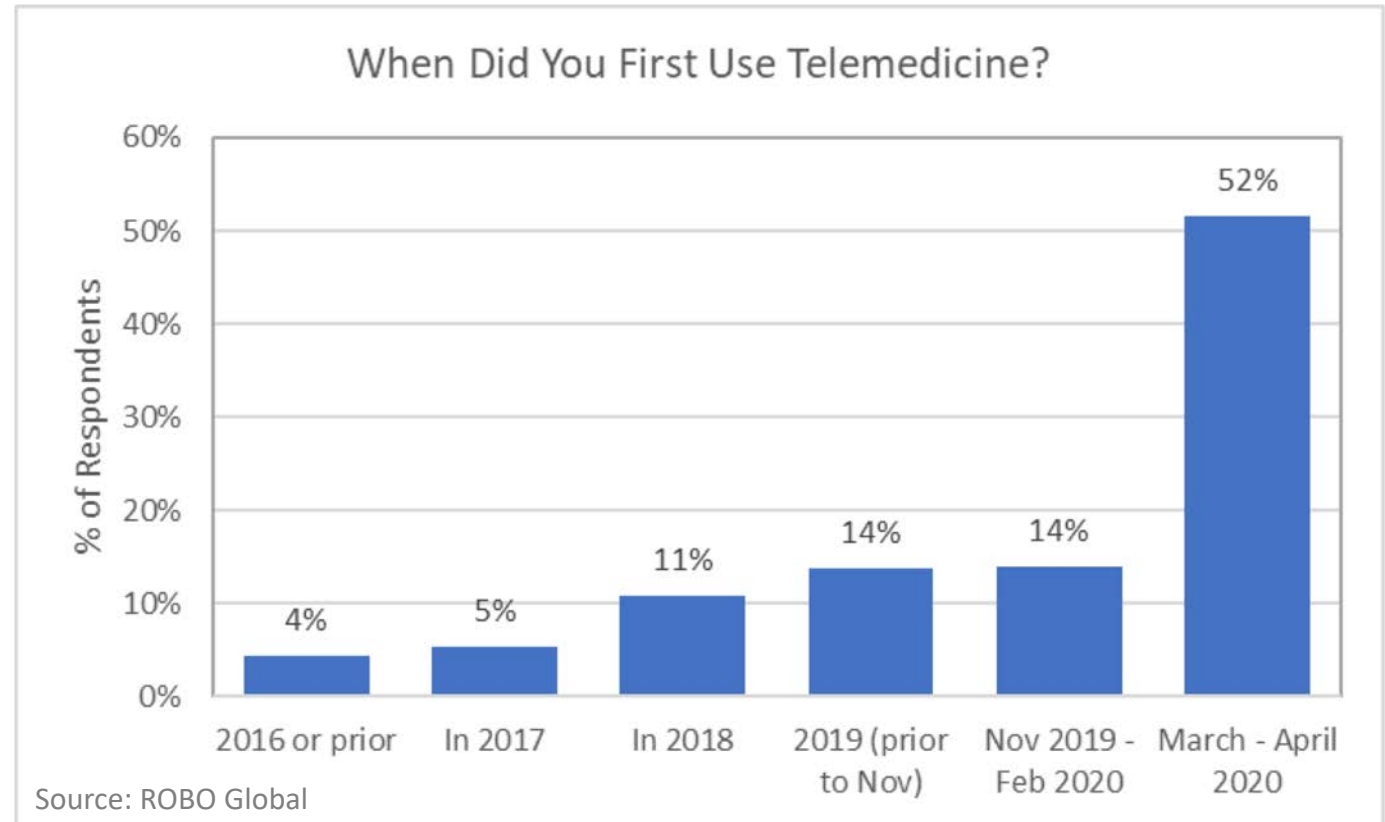
## Key Takeaways:

- The pandemic tripled the number of active users in the industry, and 93% of them said they'd use telemedicine again.
- Adoption has grown in areas beyond "traditional" telemedicine, expanding both use cases and the addressable market.
- We view behavioral health, chronic care, and the elderly population as prime penetration opportunities.
- Further software investment will be needed post-pandemic, as 18% of visits took place using non-HIPAA compliant platforms.
- HTEC investors have exposure to this theme through its highest performing subsector, Telehealth, which has returned 106% since inception of the HTEC Index in June.

# First Time Telemedicine Use More Than Tripled From Its Pre-pandemic Run Rate

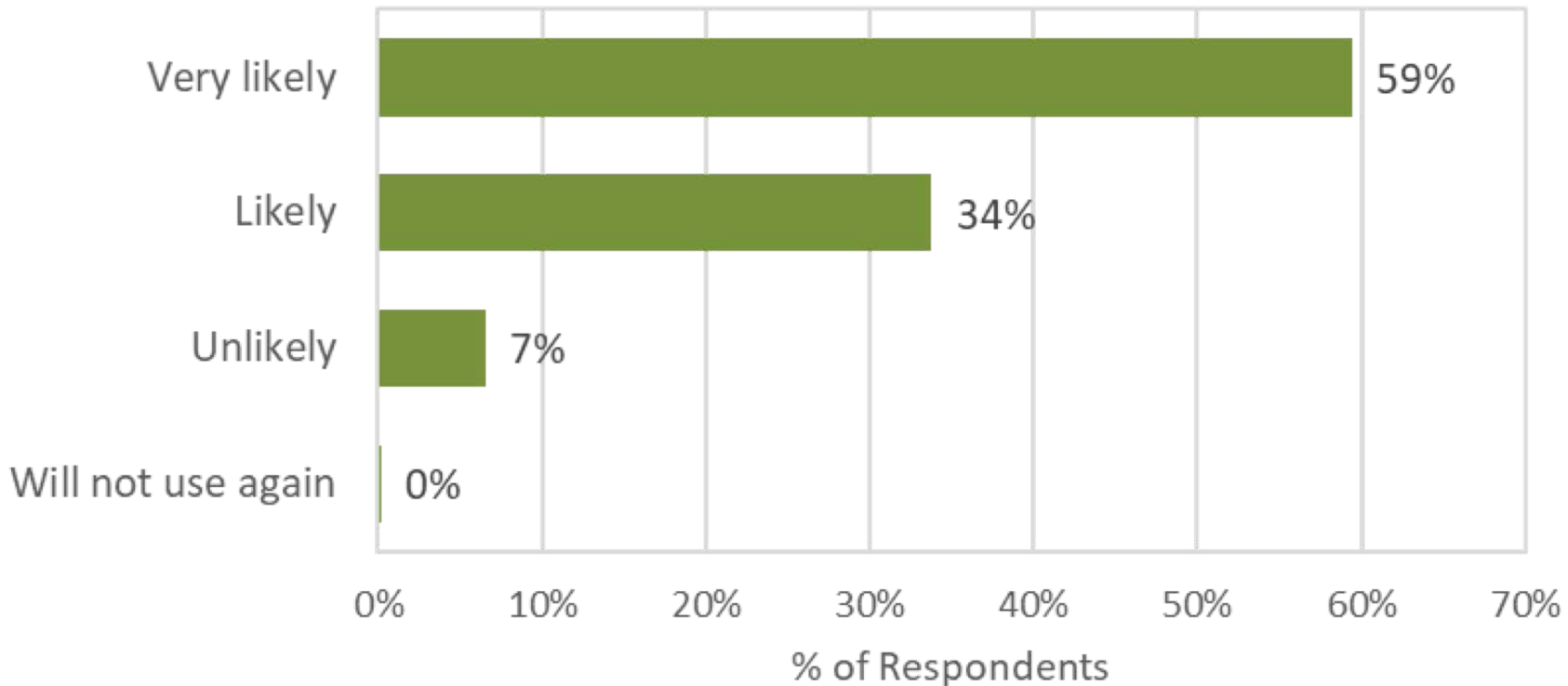
We asked 1,015 consumers whether they have tried telemedicine at least once, and if so, when. Over half of respondents indicated that they have used it. We view this as substantial, because only a few years ago, most consumers had not yet tried telemedicine.

- **51% of respondents indicated they have used telemedicine.**
- **Of these, 52% tried telemedicine for the first time during the pandemic this year.**
- **This represents an increase of more than 3x during the pandemic.** Given the heavy flu season last winter, we view the November to February time frame as the previous base-line run-rate for first time use prior to the pandemic.



# There's No Turning Back: 93% Said They Would Use It Again

How Likely Are You To Use Telemedicine Again?

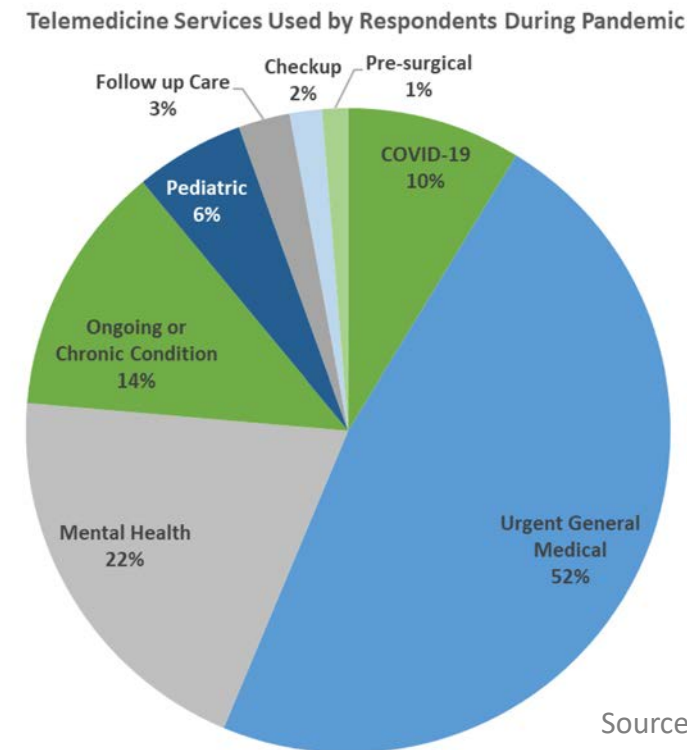
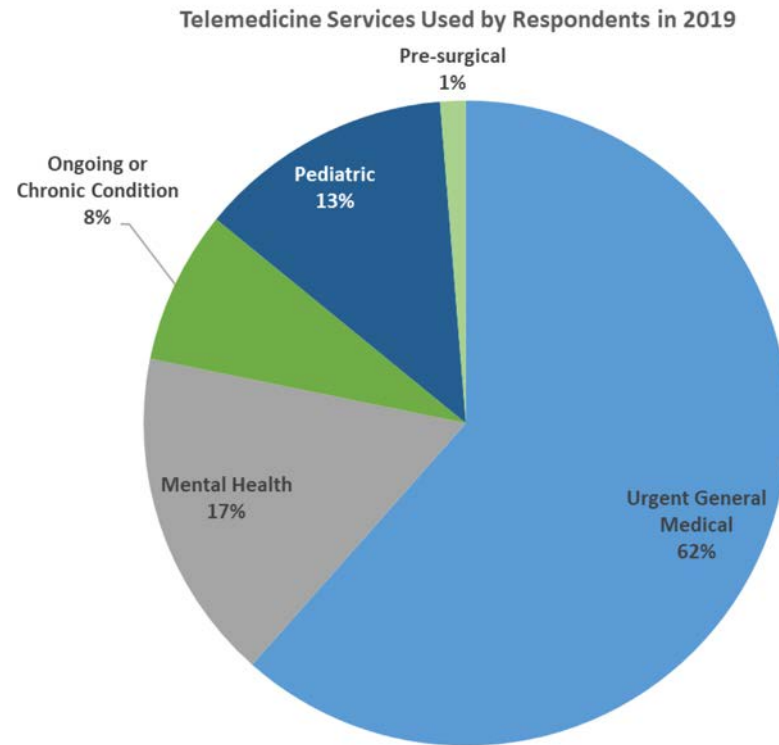


Of the respondents who have used telemedicine, 93% said they would use it again. Over one-third of respondents indicated that they were likely to use telemedicine again, and 59% said they were very likely to. This provides us with confidence that the higher level of users during the pandemic is sustainable.

Source: ROBO Global

# Telemedicine Use Cases Expanded During the Pandemic

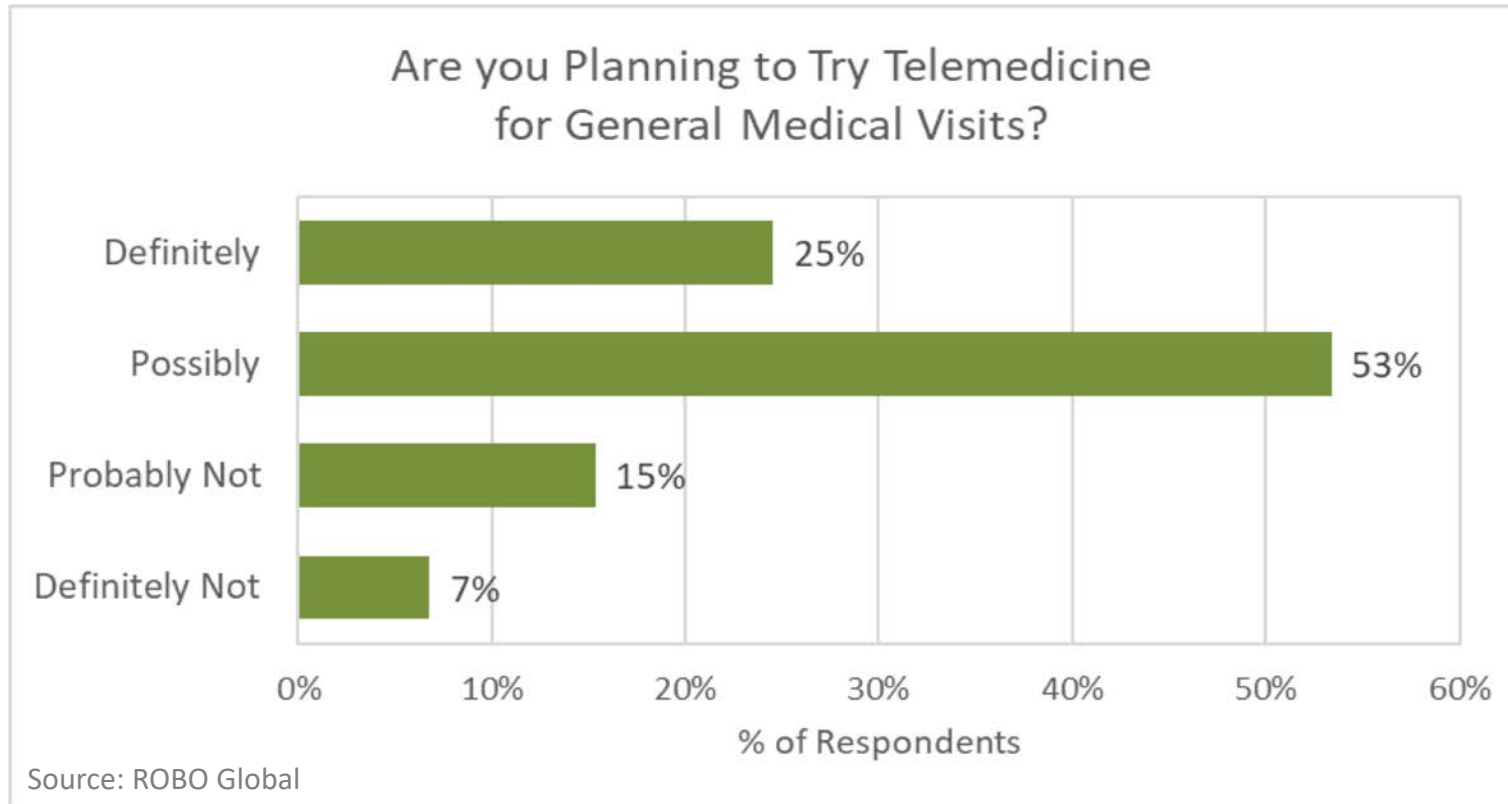
We asked respondents to indicate the reason for their telemedicine visit. The chart on the left illustrates that in 2019, nearly two thirds of visits were of the traditional general medical type (e.g. allergy, cold, sinus, UTI, rash, asthma, etc.). As noted previously, during the pandemic, overall visit volume increased threefold. The chart on the right shows other types of services gaining share of this new volume. Mental health visits increased from 17% to 22%, visits tied to ongoing or chronic conditions such as heart disease increased from 8% to 14%, and follow-up care and routine checkups also made an appearance. Note that 10% of visits were related to COVID-19, in line with recent Teladoc commentary.



Source: ROBO Global

# The Other 49% Remains a Significant Penetration Opportunity

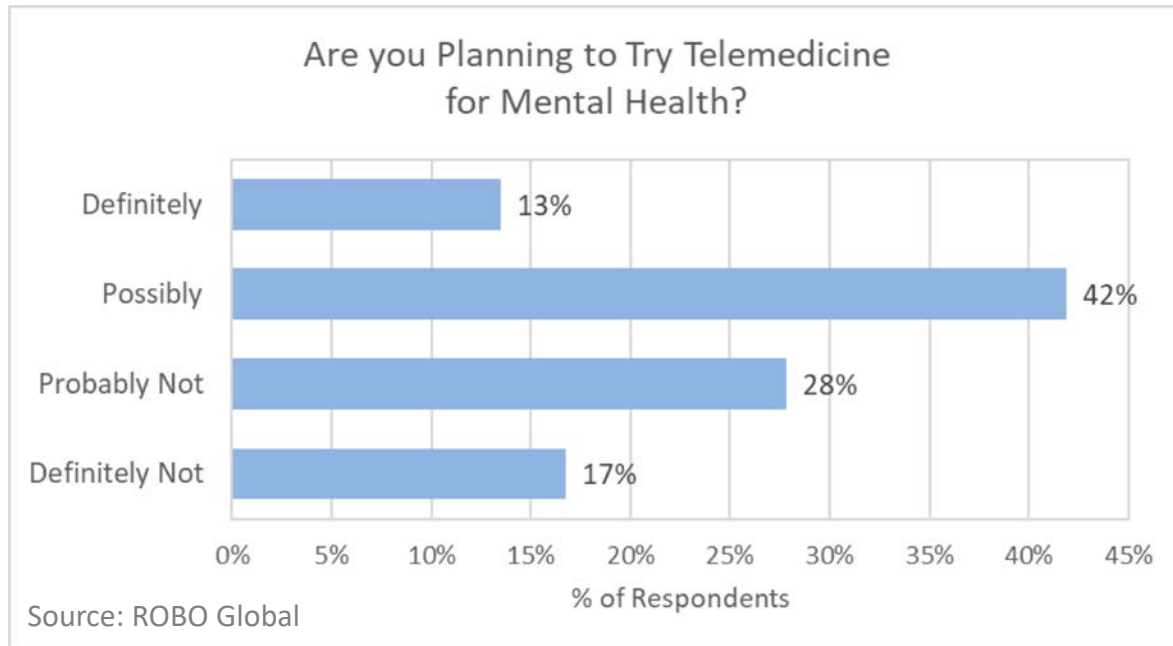
Of the respondents who have NOT used telemedicine, we asked whether they plan to try it out across different indications. For general medical visits, which includes low acuity urgent care needs such as sinus infections, allergies, colds, UTIs, and skin rashes, 78% responded in the affirmative, with 25% “definitely planning” to try telemedicine for such needs.





# Mental Health is the New Black

- 55% of respondents indicated willingness to try using telemedicine for mental or behavioral health visits.
- **13% said they were “definitely planning” to try telemedicine**, and 42% said they would possibly try it.



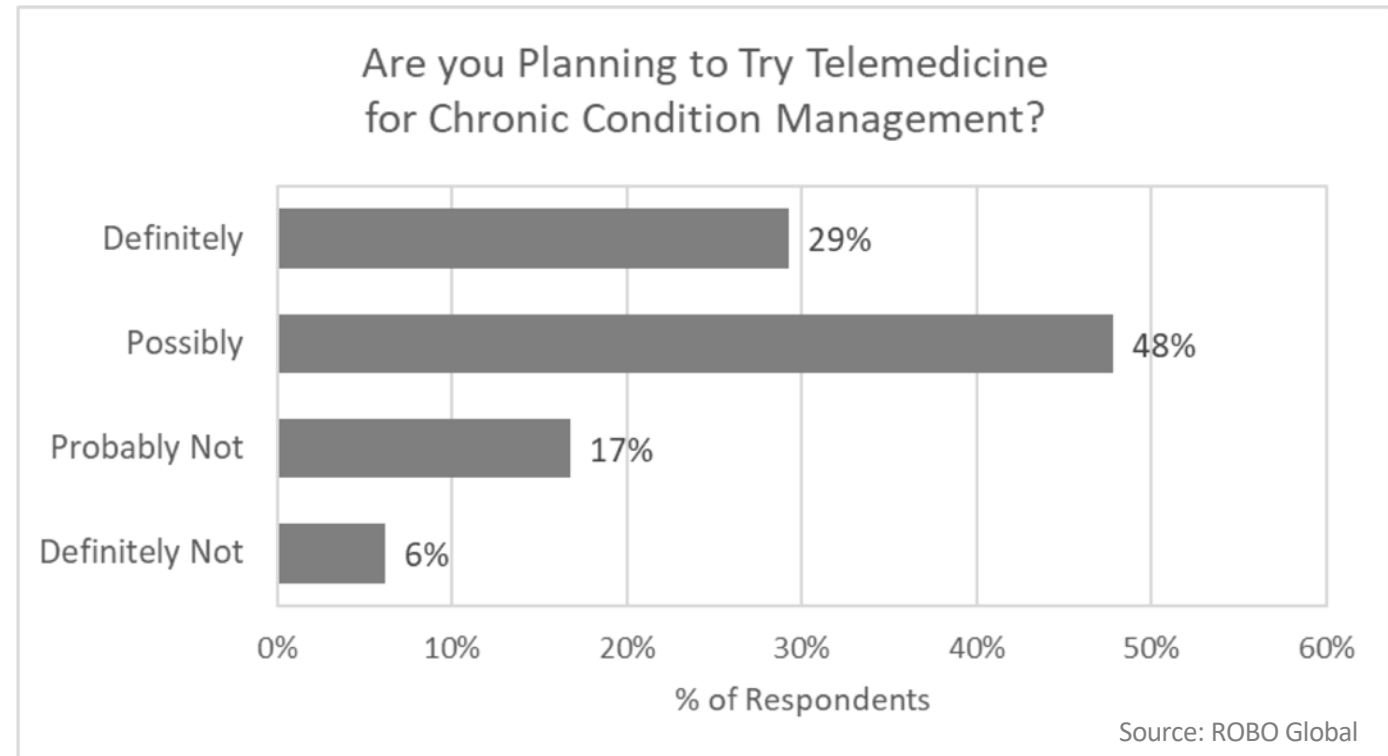
- **We estimate the mental health addressable market to be at least \$20B.** This market offers a substantial growth opportunity, as patients typically see a therapist with higher frequency than a general medical practitioner. Talkspace, a privately-backed behavioral health telemedicine provider, indicates that the common term is 12–16 sessions. For many, treatment can take longer (6 months–2+ years).

Minimum Addressable Market for Mental Health Telemedicine	
Number of mental health patients untreated in the U.S. ( <i>MHAnational.org</i> )	26,000,000
Number of therapy visits	12
Price of a telemedicine mental health visit (\$)	65
<b>Addressable Market</b>	<b>\$ 20,280,000,000</b>

Source: ROBO Global

# Perhaps the Biggest Surprise Was the Chronic Condition Response Rate

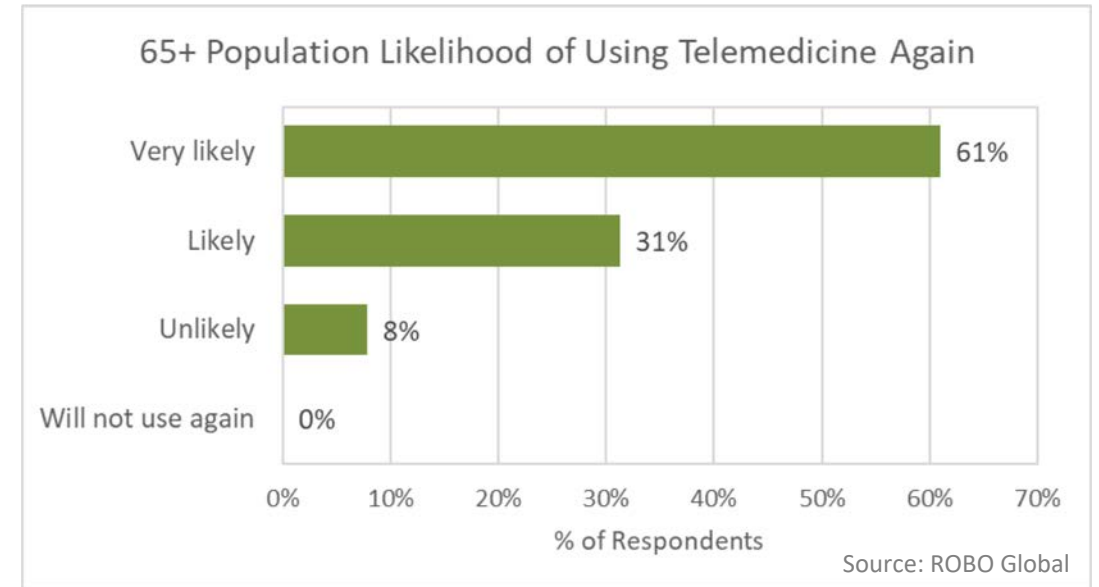
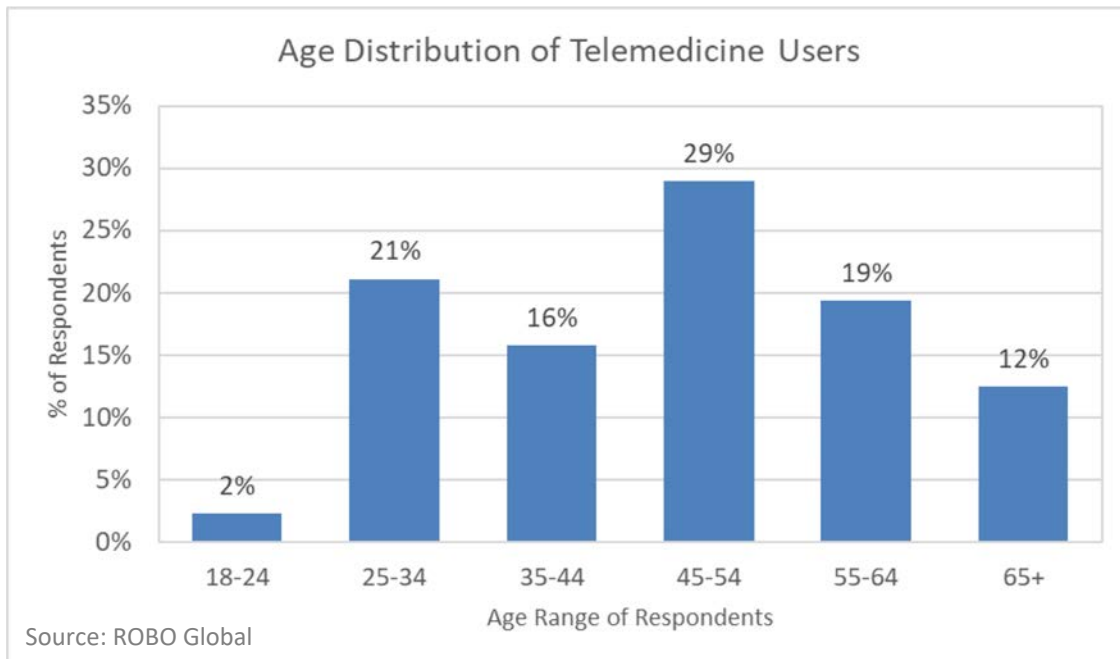
- 77% of respondents indicated that they might use telemedicine to manage ongoing or chronic conditions. This is a larger cohort than we were expecting, considering this industry has only just gone mainstream.
- **29% said they were “definitely planning” to use it.** 48% said they would possibly use it.
- Like mental health, chronic condition management, particularly for diseases such as cardiac care and diabetes, typically requires multiple visits per patient per year.
- **There is a tremendous opportunity for telemedicine to help meet the global unmet needs of chronic illness.** The NIH estimates that 1 in 3 adults in the world suffer from multiple chronic conditions, and the WHO expects the global shortage of healthcare workers to increase over time. We view telemedicine for chronic care management as a low-cost solution that helps expand healthcare access to care, particularly for populations in remote places. Global adoption of 5G will further expand reach, potentially for more complex medical services.





# The Elderly Represent Another Significant Growth Opportunity

- Of first-time telemedicine users, 12% were over 65 years old.
- 92% are likely to use telemedicine again. Zero respondents said they would not use it again.
- Federal coverage of telemedicine following the pandemic would be a significant growth opportunity.



## Seniors are Among the Newest Users of Telemedicine

Only in January 2020 did the Centers for Medicare and Medicaid (CMS) begin covering telemedicine visits for Medicare Advantage members, representing 35% of the broader 60 million member Medicare population. Prior to that, there was almost no utilization among this population. In March, the federal government expanded coverage to all Medicare members, allowing them to see a physician without leaving home during the pandemic. Should coverage continue beyond the pandemic, we believe this represents a very large opportunity. Several factors will affect this expanded coverage, including new data regarding overall cost savings and utilization.

# Data Privacy? You Can't Look The Other Way Forever...Right?

Consumer apps are typically not HIPAA compliant, meaning they don't meet the regulatory standards that have been built and enhanced since 1996 to protect patient data and the passage of data through electronic exchange. The CARES Act, launched in March, set aside the HIPAA rules during the national public health emergency in order to enable telemedicine visits. Providers and patients alike were asked for the first time at all government levels to stay home and use remote visits to see a physician rather than go in person. This opened the door, albeit temporarily, to conduct visits using any means available. For 18% of our survey respondents during the pandemic, this meant using whatever consumer tech apps both doctor and patient had handy, such as FaceTime, Skype, WhatsApp, Zoom, and Google Duo.

We don't believe that it is likely that this suspension will remain in place indefinitely. Eventually, when the public health emergency concludes in the U.S., physicians will once again be subject to the hefty fines associated with HIPAA breaches, such as using these consumer apps to communicate with patients, or with doctors about patients.

**In our view, the 18% of visits that took place on consumer apps represent a segment of providers who will need to invest in a telemedicine platform that meets data security standards or stop doing remote visits.**

If the federal government continues to support telemedicine visits following the pandemic, we believe that providers will make the necessary investments in the new platforms. This will create another growth driver for telemedicine vendors like Teladoc, Amwell, MDLive, and Doctor On Demand.

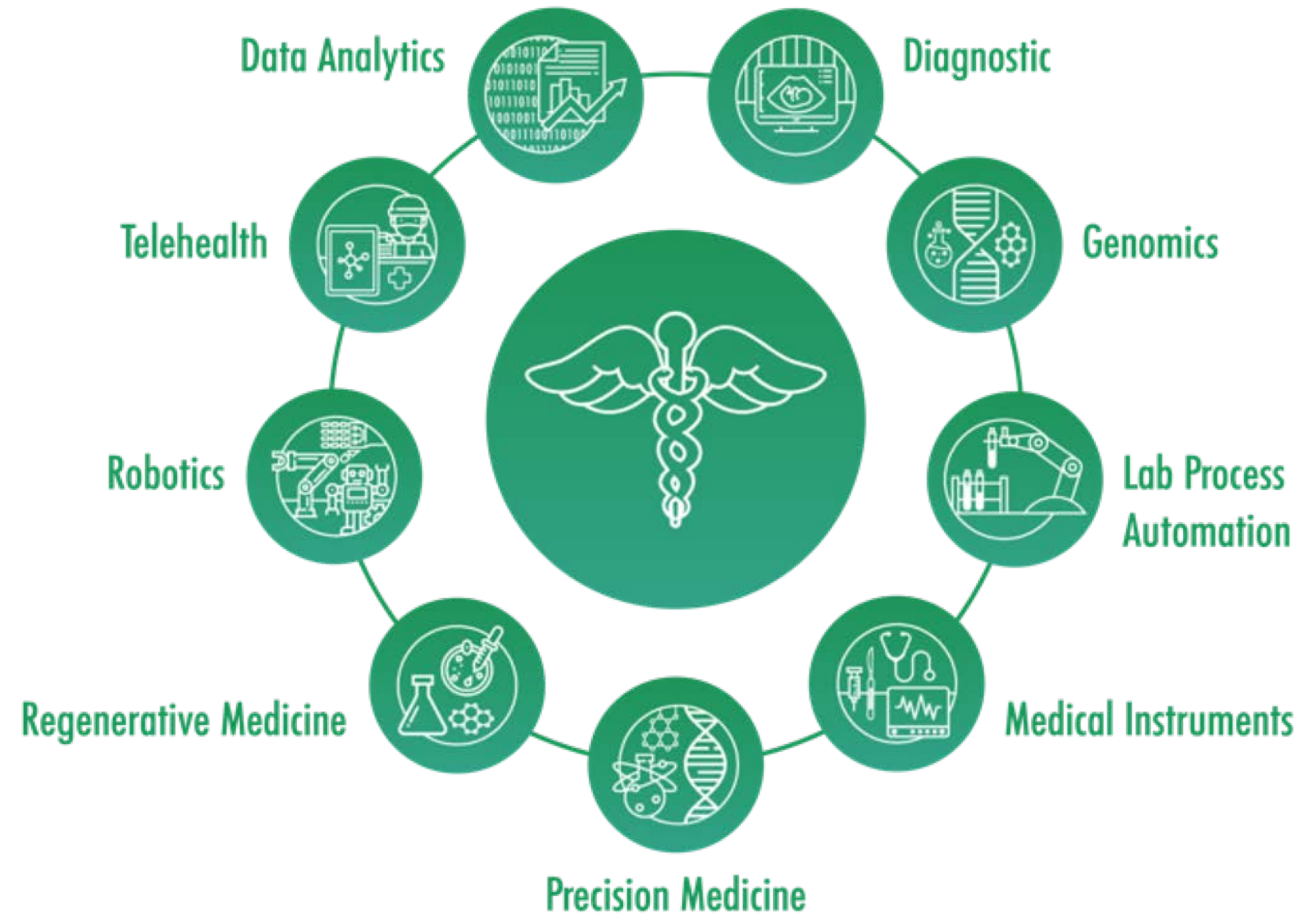
# Investors Can Access Telemedicine Growth with the HTEC Index (Ticker: HTEC)

The HTEC Index provides pure play exposure to telemedicine with two of its top holdings, U.S.-based Teladoc Health and China-based Ping An Healthcare and Technology Co Ltd.

At ROBO Global, we segment the HTEC Index portfolio across a proprietary classification of the nine most promising healthcare technology sectors, shown on the right. Teladoc and Ping An are members of the HTEC Index by way of our Telehealth subsector, which also includes remote monitoring companies like iRhythm.

**Increased demand for these solutions has driven a return of 76% YTD for our Telehealth subsector.**

In our view, this is only the beginning. The growth drivers outlined in this report, along with increasing demand for remote monitoring, reaffirms our conviction that telehealth will continue to transform healthcare, during the pandemic and for years to come.







# ROBOGLOBAL

INNOVATIONS, INNOVATORS, & INSIGHTS.  
**DELIVERED.**

Sign up for the ROBO Global newsletter at

[www.roboglobal.com](http://www.roboglobal.com)

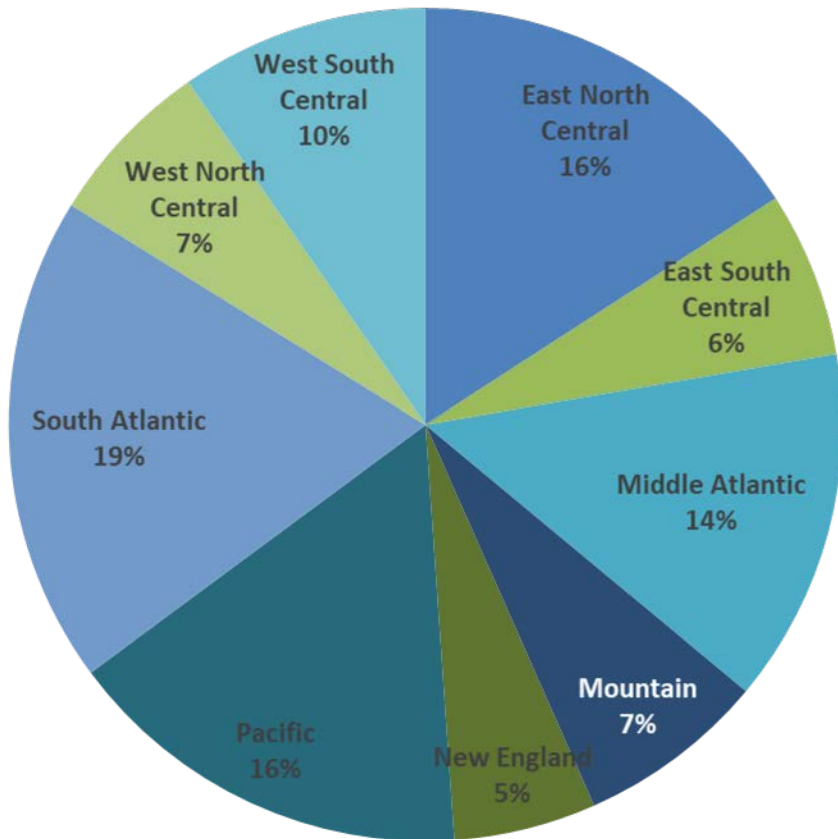
or email us at [info@roboglobal.com](mailto:info@roboglobal.com)



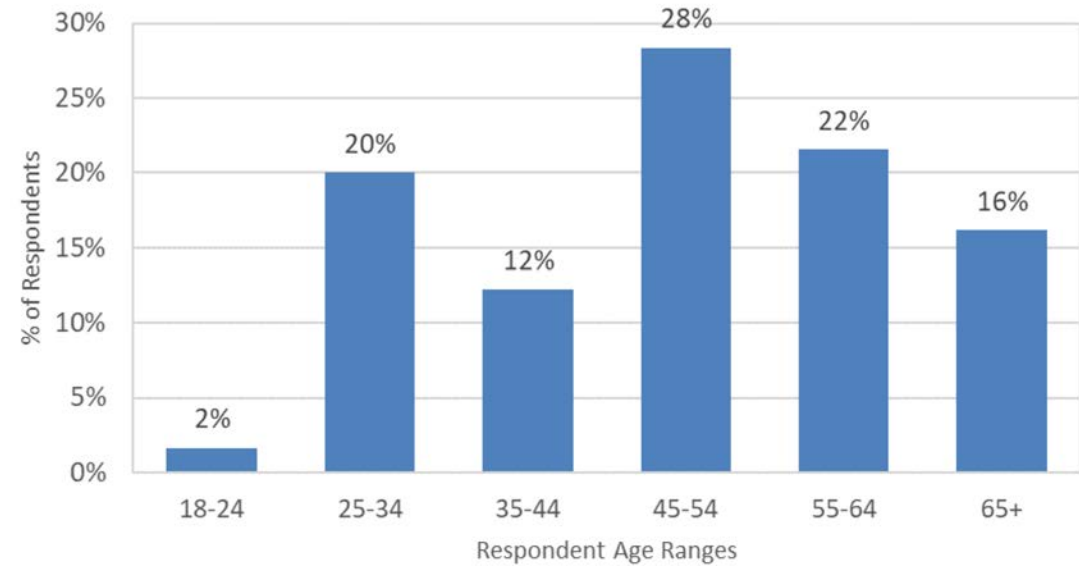
# Appendix

Our survey includes responses from 1,015 consumers, and represents a wide range of ages, incomes, and regions across the U.S.

Respondent Distribution By Region

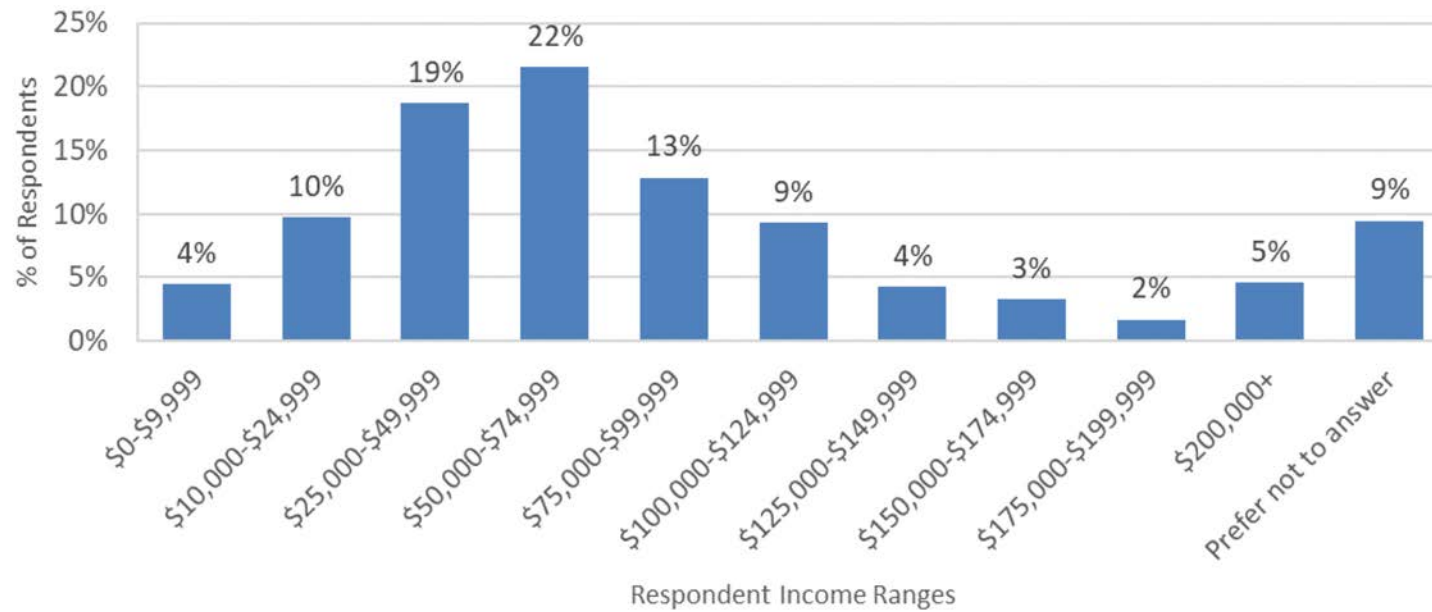


Respondent Distribution by Age

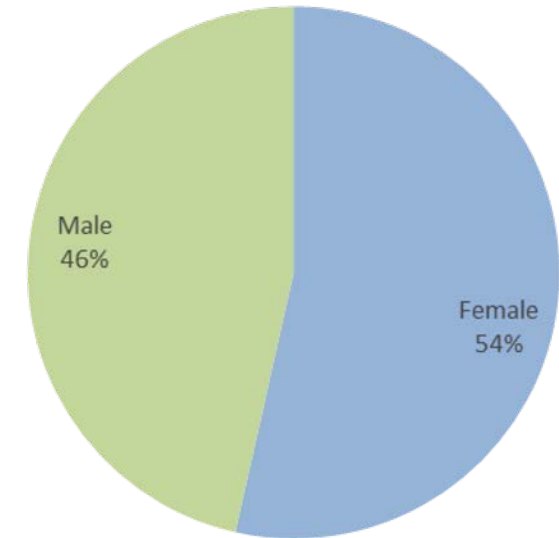


# Appendix

Respondent Distribution by Income



Respondents By Gender





# GENERAL DISCLAIMER

Copyright © 2020 by ROBO Global, LLC. All rights reserved. ROBO Global® is a registered trademark of ROBO Global, LLC.

ROBO Global, LLC is referred to as “ROBO GLOBAL.”

Redistribution, reproduction and/or photocopying in whole or in part are prohibited without written permission. This document does not constitute an offer of services in jurisdictions where ROBO GLOBAL does not have the necessary licenses. All information provided by ROBO GLOBAL is impersonal and not tailored to the needs of any person, entity or group of persons.

The ROBO Global® Robotics and Automation Index, the ROBO Global® Robotics and Automation UCITS Index, the ROBO Global Artificial Intelligence Index and the ROBO Global Healthcare Technology and Innovation Index (the “Indices”) are the property of ROBO GLOBAL who have contracted with Solactive AG to calculate and maintain the Indices. The Indices are not sponsored by Solactive AG or its affiliates. Neither Solactive AG, nor any of their affiliates will be liable for any errors or omissions in calculating the Indices. Closing prices for the Indices are calculated by Solactive AG based on the closing price of the individual constituents of the index as set by their primary exchange. Historical performance illustrations in the Indices are based on a backcast calculation. A backcast calculation can be materially different from a backtest analysis.

Past performance of an index is not a guarantee of future results. The value of investments may go down as well as up and potential investors may not get back the amount originally invested. It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments based on that index. ROBO GLOBAL makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. ROBO GLOBAL is not in a position to give advice on the suitability of any investments for potential investors. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other vehicle. Inclusion of a security within an index is not a recommendation by ROBO GLOBAL to buy, sell, or hold such security, nor is it considered to be investment advice.

It is not intended that anything stated in this factsheet should be construed as an offer or invitation to buy or sell any investment in any Investment Fund or other investment vehicle referred to in this website, or for potential investors to engage in any investment activity.

No Investment Fund or other investment vehicle based on the Indices is sponsored, promoted, sold or supported in any other manner by ROBO GLOBAL or Solactive AG (the “Index Parties”) nor do the Index Parties offer any express or implicit guarantee or assurance either with regard to the results of using the Indices and/or an Index trademark or an Index price at any time or in any other respect. The Index Parties use their best efforts to ensure that the Indices are calculated correctly. Irrespective of their obligations towards the Company, the Index Parties have no obligation to point out errors in the Indices to third parties including but not limited to investors in, and/or financial intermediaries of, any Investment Funds or other investment vehicles. Neither publication of the Indices by Solactive AG nor the licensing of the Indices or an Index trademark by ROBO GLOBAL for the purpose of use in connection with any Investment Fund or other investment vehicle based on the Indices constitutes a recommendation by the Index Parties to invest capital in any such fund or investment vehicle nor does it in any way represent an assurance or opinion of the Index Parties with regard to any investment in such fund or investment vehicle.

These materials have been prepared solely for informational purposes based upon information generally available to the public from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse-engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of ROBO GLOBAL. The Content shall not be used for any unlawful or unauthorized purposes. ROBO GLOBAL and its third-party data providers and licensors (collectively “ROBO Parties”) do not guarantee the accuracy, completeness, timeliness or availability of the Content. ROBO Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. The content is provided on an “as is” basis.

ROBO Parties disclaim any and all express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use, freedom from bugs, software errors or defects, that the content’s functioning will be uninterrupted or that the content will operate with any software or hardware configuration. In no event shall ROBO Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages. ROBO Parties and their respective employees, affiliates and partners hereby exclude, to the extent permitted by applicable law, all liability in connection with the use of this factsheet.