Research 2 Guidance

mHealth App Economics 2017/2018

Current Status and Future Trends in Mobile Health

How digital intruders are taking over the healthcare market

November 2017

Research Partners

Roche

ضمان Daman

Contents

1. About the mHealth Economics program 4
2. Introduction: The digital health market continues to segment and establish 7
3. Report Summary: The big 10 report take-aways 9
4. The digital & mobile health market continues to grow 10
5. Characteristics of digital health app publishers & the impact of digital intruders on the healthcare industry 15
6. Publishers' experience: Digital & mobile health still attracts new entrants every year 19
7. Outlook: Conditions and technologies shaping the digital health market in the future 22

Feel free to share:

ABOUT RESEARCH2GUIDANCE:

Research2Guidance is a strategy advisory and market research company. We concentrate on the mobile app eco-system. We are convinced that mobile health solutions will make a difference in people's lives and that the impact on the healthcare industry will be significant. We provide market insights to assist in making this happen, and assist in successfully leading businesses.

GIVE US A CALL: Berlin, Germany, +49 (0)30 609 89 33 60

OTHER MHEALTH REPORTS BY RESEARCH2GUIDANCE

SEE PREVIEW

DIABETES APP MARKET REPORT (OCTOBER 2016)

The Diabetes App Market Report 2016-2021 (2nd Edition) is a comprehensive analysis of the global and country-specific markets, diabetes app performance, key players, best practices, evolving strategies, market trends and revenues covering 2008-2021. Special attention is paid to the market changes observed since the previous edition of this report in 2014.

DOWNLOAD FOR FREE

MHEALTH ECONOMICS 2017/2018 - HOW TO DEVELOP AND HOW TO MAKE MONEY WITH MOBILE HEALTH APPS

This report is focused on how to monetize mobile health apps: Download numbers, app marketing, business models, marketing, development costs. The report results are based on answers of more than 2,400 mHealth app developers and healthcare professionals.

SEE PREVIEW

PHARMA APP BENCHMARKING REPORT (JULY 2017)

Since the first report about leading Pharma companies' app publishing activities in 2014, companies have intensified their activities in digital health. This report analyses the status of the app publishing activities of the 12 leading Pharma companies globally. It also analyses newly established channels that Pharma use to partner with 3rd party companies.

We want to thank all our sponsors and partners:

Research Partners:

Distribution Partners and Accelerators/Incubators:

Media Partners:

1. About the mHealth Economics program

The mHealth Economics program has been exploring the developments of digital health for 7 years now, and counting. Since the first report on the mobile health app market, a total of 6.7 million data points have been revealed, which illustrate mHealth and digital health market developments dating back as far as 2010. The mHealth Economics program is the largest digital health research program globally, with more than 15,000 participants since its beginnings. This is the first of two reports of the mHealth Economics Program 2017/2018. Download the 2nd report (How To Monetize Mobile Health Apps) for free here.

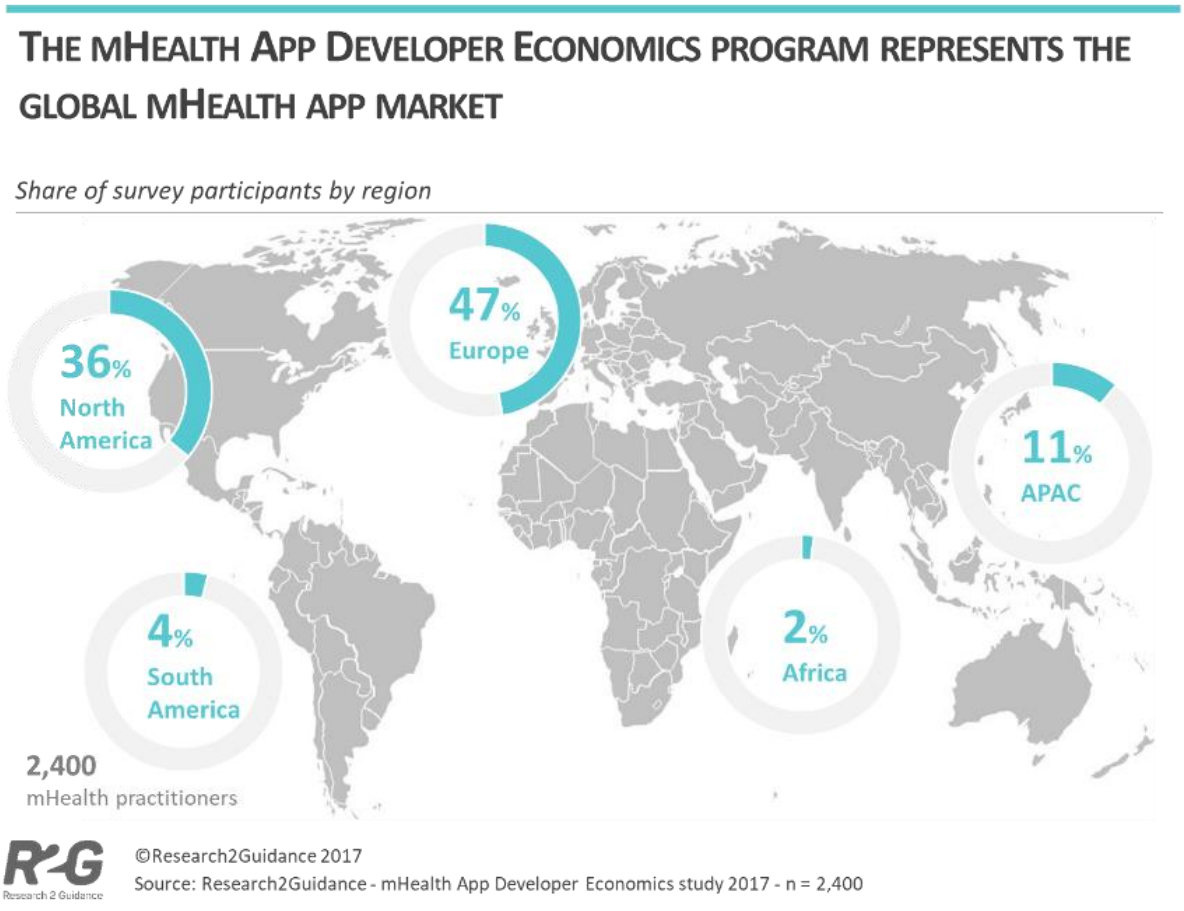
15,000 participants since 2010

The aim of the program is to reveal current market conditions, and future trends in the digital health arena. It examines how successful mHealth app publishers are operating, how the market is changing, and where it is heading. In doing so, the report helps stakeholders to understand current and future market developments.

Each year the program emphasizes several trending topics relevant to digital health. For 2017/2018, trending topics include; digital health business models, typical project budgets and digital health accelerator programs. Also new to this years' program is the release of not only one, but several free-to-download reports.

This year more than 2,400 decision makers and experts in mobile and digital health have partaken in the market survey and have contributed to this year's report.

The mHealth Economics program – go-to resource for all digital health stakeholders



The majority of digital health practitioners come from Europe (47%) and the US (36%). 11% come from the Asian-Pacific region, and only a small share from South America and Africa.

The biggest region, Europe, represents 36 countries in this report. The majority of answers from European mHealth survey participants come from Germany, and the UK. The second biggest region, North America, is represented by 91% US-American and 9% Canadian app publishers.

Participants include; app owners and managers, coders, project managers, physicians and health start-ups. Answers have come from 91 countries globally. The 2,400 participants represent 3% of the global app publishers in healthcare.

We want to thank all survey participants for their contribution and wish the readers an interesting read.

Sincerely,

Your Research2Guidance team

Terms of Report Re-Use

We invite you to share the download link from www.research2guidance.com, social media or file sharing platforms like Slideshare onto which Research2Guidance has uploaded the report. For permission to distribute the report document (PDF) within your contact base or its content, please contact us in advance. Thereafter, provided that you mention Research2Guidance as its author, feel free to mention the report, cite parts of the results or re-use graphics.

Representations, Warranties and Disclaimer:

Research2Guidance offers the report as it is and makes no representations or warranties of any kind concerning the work; express, implied, statutory or otherwise. Research2Guidance considers the information in this report reliable, but states that it should not be relied upon as such.

Opinions stated in this report are researched by the author as it is and might be subject to change without notice. Any third-party using this report must not rely on its information solely, but must carry their own due diligence to verify the author's information.

Research2Guidance disclaims all implied warranties: including, without limitation, warranties of merchantability or fitness for a particular purpose.

Limitation on Liability:

In no event will Research2Guidance, its affiliates or representatives be liable to you for any special, incidental, consequential, punitive or exemplary damages or lost profits arising out of this license or the use of the work.

Termination:

This license and the rights granted hereunder will terminate automatically upon any breach by you of the terms of this license.

Research2Guidance

Want to make use of our mHealth Economics program?

Reach out to 100,000 digital health decision makers

Promote your services:

Let the digital health community know about your product:

- ✓ Reach out to more than 100,000 digital health decision makers
- ✓ Become a report sponsor or host one of three Research2Guidance *Thought Leadership* webinars on digital health
- ✓ Present your service to the global mHealth community

Improve your digital health service offerings:

Make use of the research program insights:

- ✓ Test your product idea
- ✓ Find out what digital health customers really want
- ✓ Segment your customer target groups
- ✓ Become a long-term research partner
- ✓ Access more than 25,000 mHealth companies
- ✓ Analyse market segments (e.g. diabetes, women's health, regional breakdowns)
- ✓ Understand competitors' offerings

Contact us:

Markus Pohl

Email: markus.pohl@research2guidance.com

Phone: +49 30 60 989 3360

Download our brochure

2. Introduction: The digital health market continues to segment and establish

The market of mobile health apps is about to turn 10-years old. Although there were various digital health solutions prior, it was in 2008 that Apple enabled what is now a mass market for mobile health apps by launching its Apple App Store.

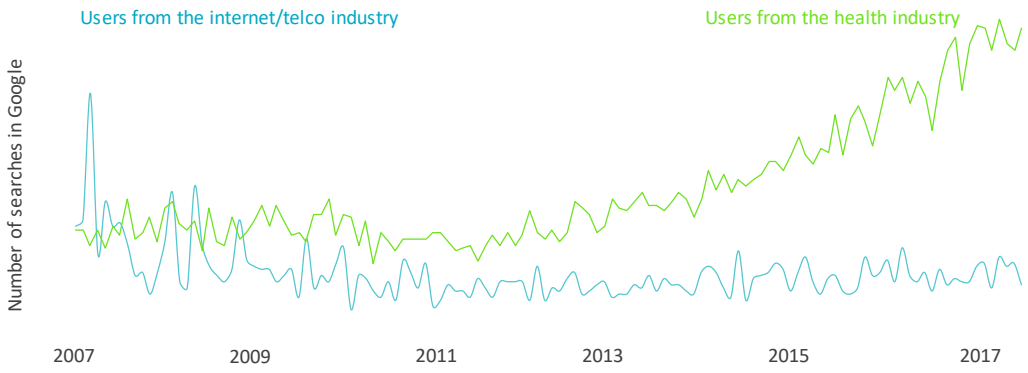
Pending the perspective, 10-years can be considered a long or short period of time. In the traditional healthcare industry, 10-years is merely the time span for a product development cycle.[1] In the digital arena, 10-years is close to prehistoric. The two environments are very different, and yet, the fast-paced digital industry and the slow-paced healthcare industry have been colliding to produce digital health – bringing disruptive change to the market.

This report situationally analyses the current state of digital health. After 10-years of market development, it is fair to say that some of the dust of early disruption has settled, and that some of the market leaders and lagers can be segregated by, for example, business models, monetization and marketing.

.

INTEREST IN DIGITAL HEALTH FROM INDUSTRY OUTSIDERS IS DECLINING, BUT IS HIGHER THAN EVER AMONGST HEALTHCARE INSIDERS

Timeline 2007-2017 of Google searches globally for the keyword "digital health" comparing users from the internet/telco industry and from the healthcare industry



Source: Google trends 2007-2017. Values indicate the search interest relative to the highest point in the chart. Value 100 stands for the highest popularity of this search term. Value 50 means that the term was half as popular. Value 0 corresponds to a popularity of less than 1% compared to the maximum value.

[1] The average time to develop a new drug is 10 years.

Internet search engines highlight how the interest in digital health has developed among the internet/telco (outsiders) versus the healthcare industry (insiders). A little over 10-years ago, the hype for "digital health" as a search term among outsiders was at all-time highs. As the digital health market expanded and matured, fewer "digital health" internet searches by outsiders were observed, while interest among health professionals strengthened

Other topics like Artificial Intelligence, Virtual Reality or Internet of Things are trending topics at the moment. Whilst the hype around mobile health has slowed down, stakeholders within the health industry are giving life to mobile health solutions. Industry insiders have adopted new technologies, new business models and new work flows. Some of the early digital health adopters have grown into prosperous businesses. Successful and experienced publishers have found their role in the market and are leading the way for followers – as revealed in the mHealth Economics 2017/2018 reports.

10 REPORT TAKE-AWAYS

325,000 health apps
available in 2017

78,000 new health apps
added to major app stores in the last year

Android overtaking Apple
in numbers of available health apps

84,000 health app publishers
releasing apps

Gap of demand and supply widening
with high number of developers, low downloads growth rates

$5.4bn investment into digital health start-ups
fueling the market

3.6bn apps will be downloaded
by users in 2017 (estimated)

18% not developing health apps
due to uncertain regulations

Insurers are the #1 future distribution channel
53% of digital health practitioners expect health insurances to be future distribution channel with best market potential

28% pure digital market players
in the digital health industry

4. The digital & mobile health market continues to grow

The market for mobile health has been growing steadily over the last years, and continues to do so. This year there are 325,000 health apps (health & fitness and medical apps) available on all major app stores – the most there has ever been. Since last year, 78,000 new health apps have been added to major app stores.

325,000 health apps available in 2017

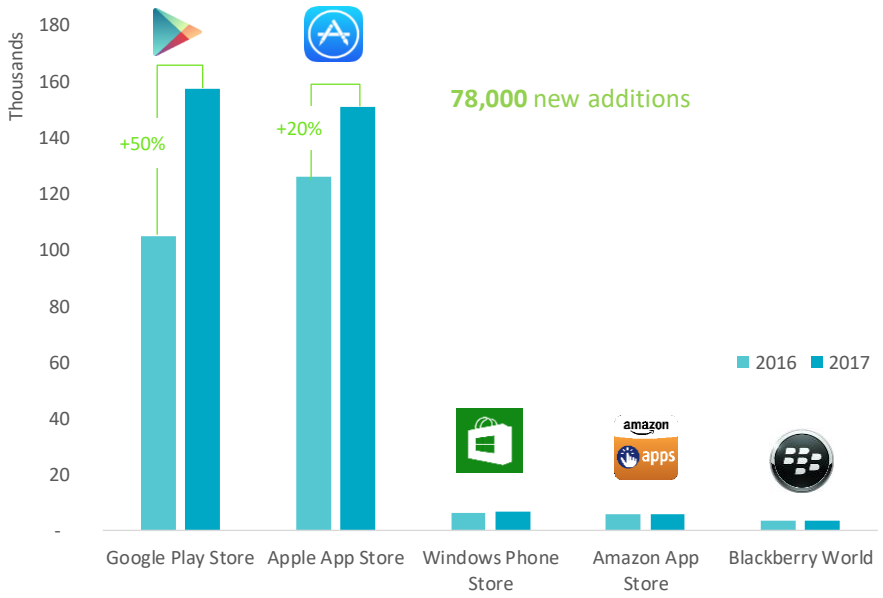
The app growth is fueled mostly by an increase of Android apps. Android has seen a growth rate of 50% from 2016 to 2017. In comparison, iOS health apps have increased by 20% within the last year.

Android #1 platform now – overtaking Apple in numbers of health apps available

Android has now overtaken iOS as the number one platform for health apps, and has the greatest number of mobile health apps of any app store.

325,000 mHEALTH APPS AVAILABLE – GOOGLE PLAY STORE IS NOW NUMBER ONE FOR HEALTHCARE APPS, OVERTAKING APPLE APP STORE

Number of mHealth apps displayed in App Stores



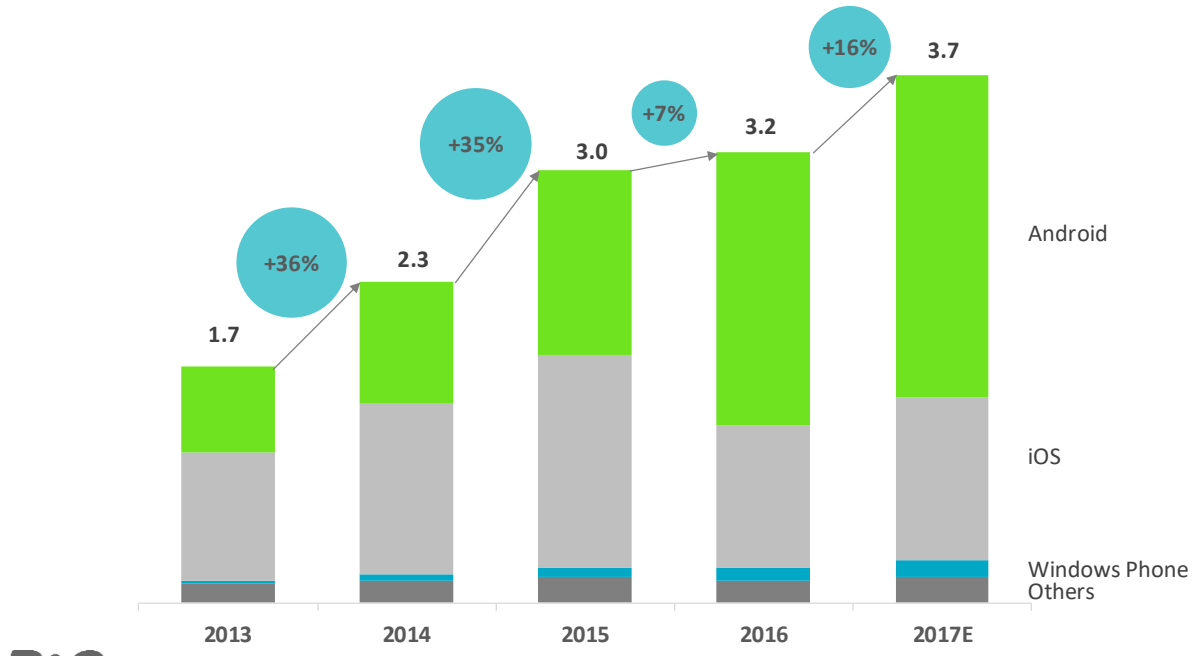
Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

The aforementioned 325,000 mHealth apps equates to an expected 3.7 billion app downloads in 2017 (estimated). Compared to last year, this is an increase of 16%. The growth rate has picked up speed again when compared to the previous year, where the growth rate of app downloads was only 7%. The growth of download numbers is driven mainly by downloads from Android and iOS. Android contributes the highest share of mHealth app downloads in 2017 (estimation). Apart from Android and iOS all other platforms only play a marginal role.

3.7 billion mHealth apps represent the supply side of the mobile health app market. The demand for mobile health apps is fueling the supply. The health industry is experiencing the same phenomenon as other industries before: The demand for apps fuels supply growth.

3.7 BN HEALTH APPS WILL BE DOWNLOADED IN 2017
BIGGEST SHARE COMES FROM ANDROID

Estimated total downloads of mHealth apps (billions)



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

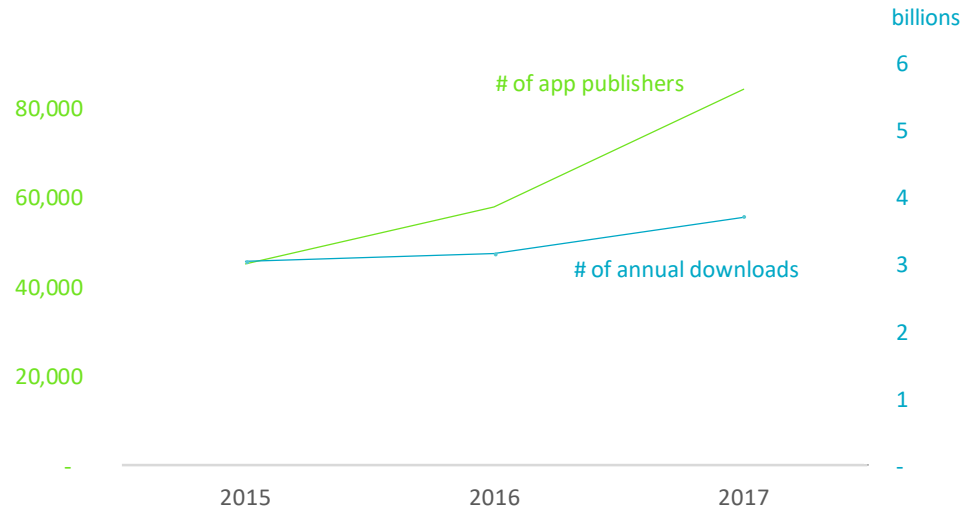
Growth rates of downloads have slowed compared to some years ago. App usage is still high but getting new downloads is a tough sell. The use of mobile apps is concentrated on 20 or fewer apps for the majority of app users.

3.7 health apps will have been downloaded in 2017

On the supply side, the number of app publishers continues to grow. The growing number of apps is fueled by a growing number of app publishers. This year more than 84,000 app publishers are developing apps for the medical and health & fitness market.

SUPPLY IS OUTGROWING DEMAND – GROWTH RATE OF APP PUBLISHERS IS HIGHER THAN ANNUAL DOWNLOAD GROWTH RATE OF MHEALTH APPS

Number of downloads of health apps; number of health app publishers 2015-2017



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

This year the number of app publishers increased by 45%. Thus, app publishers in general find themselves facing a market of increasing supply, and decreasing demand.

Another driving factor for the growth of the digital health market is the growth of start-up companies fed by early-stage investments from accelerators, incubators and Venture Capital Firms. Early stage investors have invested approximately $5.4bn globally into digital health start-ups in 2016. Heavy investments into the market for digital health – early stage as well as later stage – are fueling market growth.

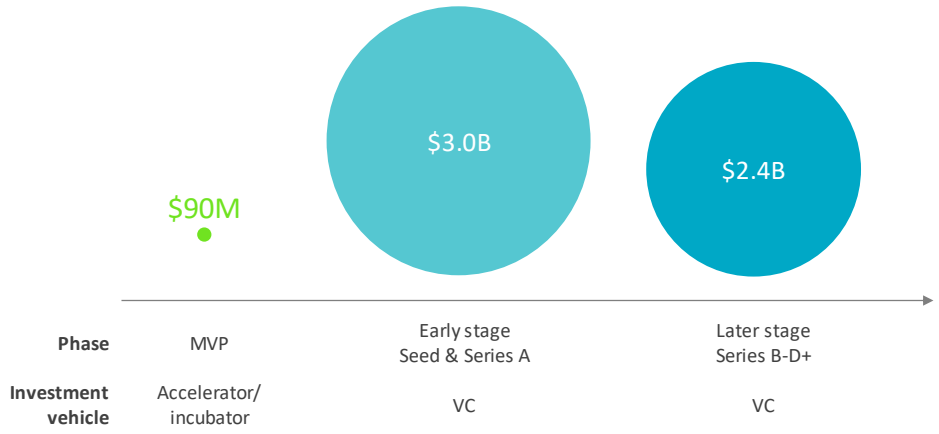
$5.4 billion have been invested in digital health in 2016

2016 has seen investments into digital health to the sum of $4.2 billion from US-American VCs only – slightly less than the previous two years. The first half of 2017 seems destined to exceed this annual figure, potentially making 2017 a record-breaking year[2] for digital health. In addition to VCs, accelerators and incubators have invested appr. $90 million into digital health.

[2] Rockhealth (2017)

INVESTMENTS INTO DIGITAL HEALTHCARE START-UPS SUM UP TO $5.4 BN GLOBALLY IN 2016

Investments into healthcare start-ups in 2016 globally



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400; Rockhealth (2017); Crunchbase (2017)

One major limitation for the digital health market are strict and often complex regulations. Regulation is often named as one of the biggest reasons for the slow development of digital health solutions. Last year's mHealth Economics survey showed that 18% of digital health stakeholders are held back from developing apps due to uncertain regulatory conditions.

The healthcare sector is, and has been, subject to intense regulation. Digital as well as non-digital health solutions that could pose a risk to patient safety must be cleared by an approved regulatory body, such as the FDA in the USA.

Regulations out of sync with publishers' reality

But there are signs of big future changes in regulating digital health. In July 2017, the most prominent regulatory body – the FDA – announced a very new approach to approving digital health solutions (called Digital Health Innovation Plan). Instead of approving individual digital products, entire companies could be approved, and digital products released by those pre-selected companies would not have to go through a regulatory process for each of their product releases.

This development is still very fresh, but the FDA seems to initiate a paradigm change in regulating digital health solutions. This could act as a blueprint for more countries to follow.

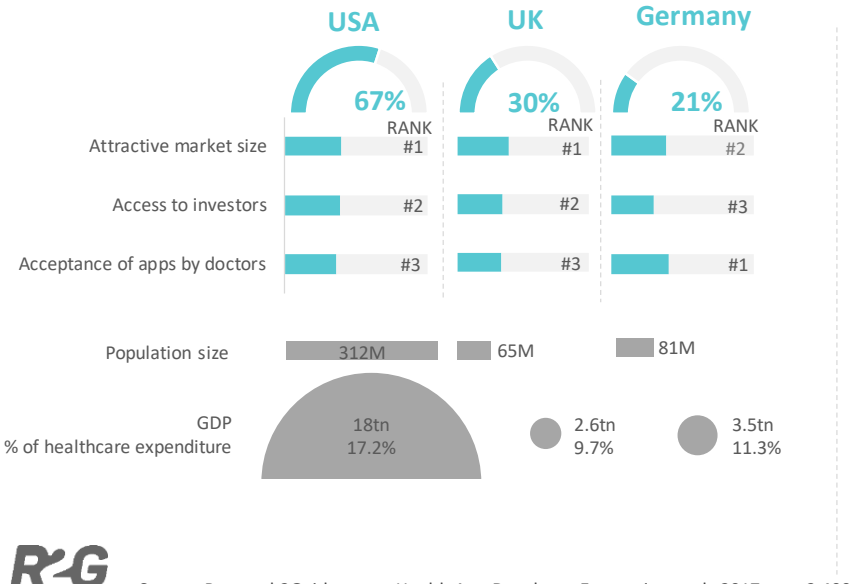
Regulations differ between countries. For app publishers being subject to regulations, the choice of their target market makes a difference – e.g. in having a competitive advantage or a threshold for market entry.

USA, the UK, Germany and Israel offer the best market conditions for digital health

The countries with best market conditions for digital health solutions are the USA, the UK and Germany. The USA (67%) is leading far ahead. The mentioned top 3 countries are followed by Israel (16%), Canada (14%), The Netherlands and Denmark (both 12%).

USA, THE UK AND GERMANY ARE THE MOST ATTRACTIVE COUNTRIES FOR DIGITAL HEALTH SOLUTIONS – MARKET SIZE IS MOST IMPORTANT FACTOR

Countries currently offering the most favorable environment for digital health solutions; reasons for most favorable environment; population size; GDP and % of health expenditure of GDP



Top 15 countries

Rank	Country	%
1	USA	67%
2	UK	30%
3	Germany	21%
4	Israel	16%
5	Canada	14%
6	The Netherlands	12%
7	Denmark	12%
8	India	11%
9	Sweden	10%
10	China	8%
11	Finland	8%
12	Switzerland	7%
13	Estonia	6%
14	Spain	6%
15	Norway	5%

Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

The reason for the attractiveness of the top 2 countries – the US and the UK – is "attractive market size", followed by "access to investors" and "acceptance of apps by doctors".

Whilst app publishers tend to pick their own country as attractive, the leading country for favorable digital health environments is still clear: the USA. The USA is considered to be attractive independent from where app publishers are located.

Comparing the USA to the other top 2 countries (the UK and Germany) in their GDP, population size and percentage of healthcare expenditure reveals the reasons for its attractiveness: The USA has the greatest population size (312 million), the greatest GDP, and the highest percentage of GDP spent on healthcare.

Big countries with high GDP are the preferred target for digital health solution providers

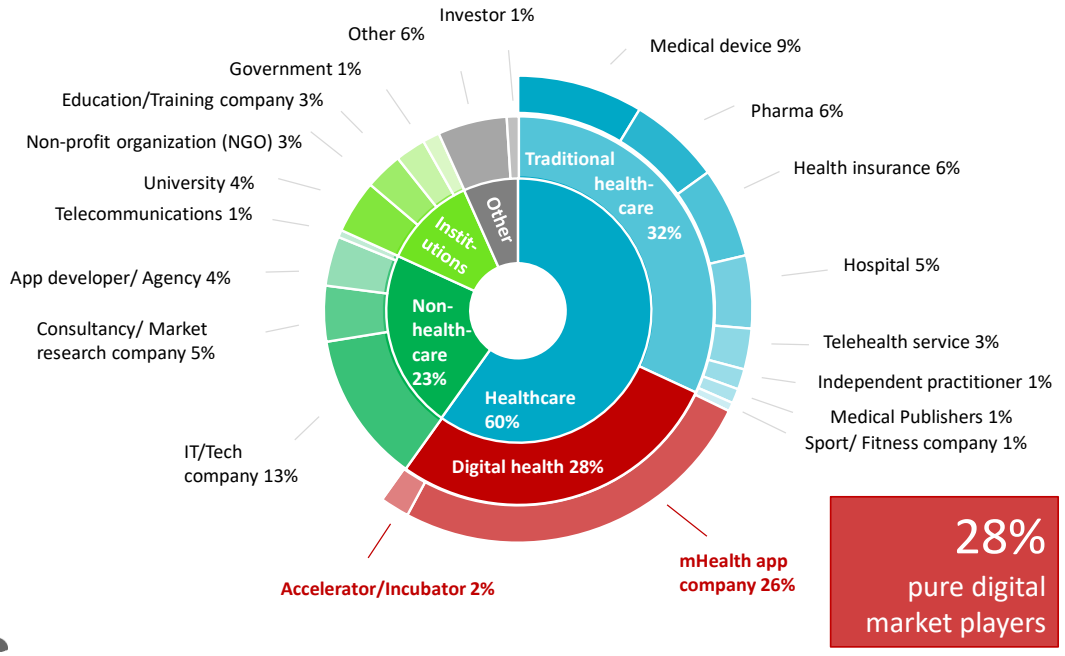
The reasons for attractiveness of a country differ widely. However, they tend to be dependent on the development level a company is in: Young start-ups looking for external investment are selecting countries as favorable if they can provide easy access to investors. More mature and successful companies with established businesses in expansion phase are eyeing those countries that offer "access to potential business partners" and "acceptance of apps by doctors".

5. Characteristics of digital health app publishers & the impact of digital intruders on the healthcare industry

Types of mobile health app publishers in 2017 have increased in diversity. For prior decades, the healthcare industry was divided among a mere few market players. The later-day mass-market of mobile apps has brought a whole new breed of digital intruders that have ventured into the healthcare market – of which have started disrupting healthcare.

DIGITAL INTRUDERS: THE HEALTHCARE MARKET IS SHAKEN UP BY NEW, PURELY DIGITAL MARKET PLAYERS

Your organization is best described as:



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

©Research2Guidance 2017

These digital intruders (mHealth app companies) constitute the biggest group within the global digital healthcare market, representing 26% of the market. The market of traditional healthcare is being penetrated by the rather new breed of digital intruders, bringing mostly "digital-only" business models to the table. 28% of the digital health market is occupied by purely digital market players; mHealth app companies and accelerators / incubators.

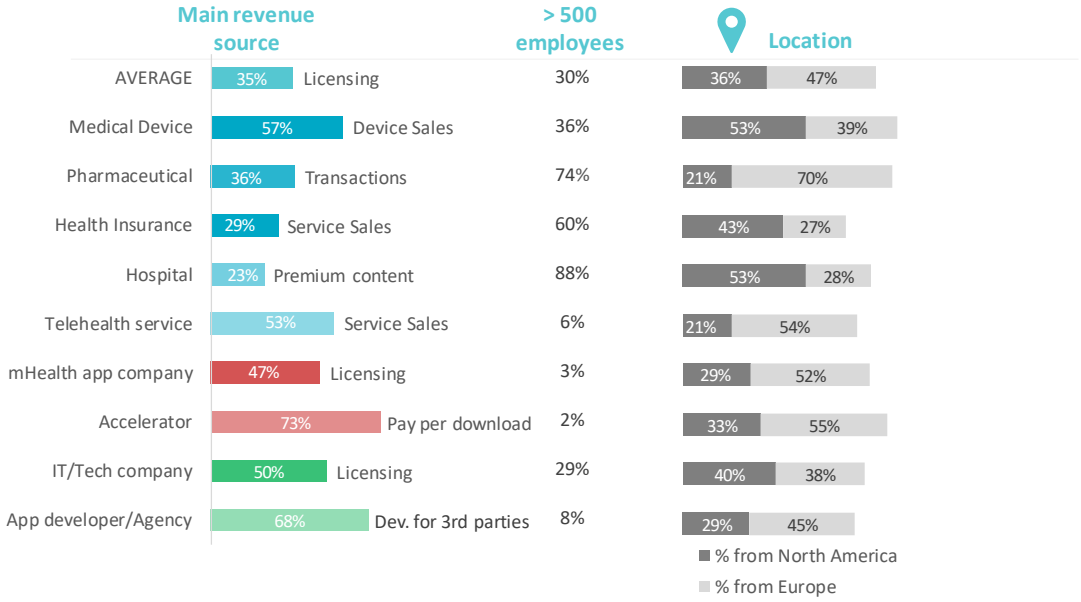
28% of digital healthcare are purely digital market players

The non-digital part of the healthcare market, i.e. traditional healthcare stakeholders, consist of industry incumbents. The biggest groups amongst traditional health companies are – in that order – medical device companies, pharma companies, health insurers, hospitals, telehealth services. Traditional healthcare companies are often using mobile health solutions as a digital extension of their core business.

The digital health market is very attractive for stakeholders outside of health industry: 23% of the digital health market are non-healthcare companies. These outsiders consist of IT/Tech companies, consulting/research companies and app developers/agencies. Telco companies used to be very big at the beginning of mobile health. In 2017 they have shrunk to a mere 1%. Institutions like universities, NGOs and Educational organizations represent a minor fragment of the digital health market.

A VIEW BEHIND THE MHEALTH MARKET STAKEHOLDERS: MHEALTH APP COMPANIES TEND TO COME FROM EUROPE AND ARE RATHER SMALL

Company location; number of employees; revenue sources; platforms for developing



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

Small companies are shaking up the healthcare industry

Digital intruders (mHealth app companies) have an unclear profile in comparison to other digital health market segments. They tend to be European, rather than North American. In terms of company size, they are much smaller than average with mostly 1-2 or 100-500 employees.

mHealth app companies monetize the most by licensing their product/s. Not surprisingly, other players in healthcare have different monetization models for their digital solutions; e.g. app development agencies monetize via development for 3rd parties, whereas medical device companies monetize via device sales. Both health insurers and hospitals don't monetize with their apps as much, as the purpose of their apps may differ; e.g. they may be used to promote health insurance policies, support insures with their policies, support clinicians etc.

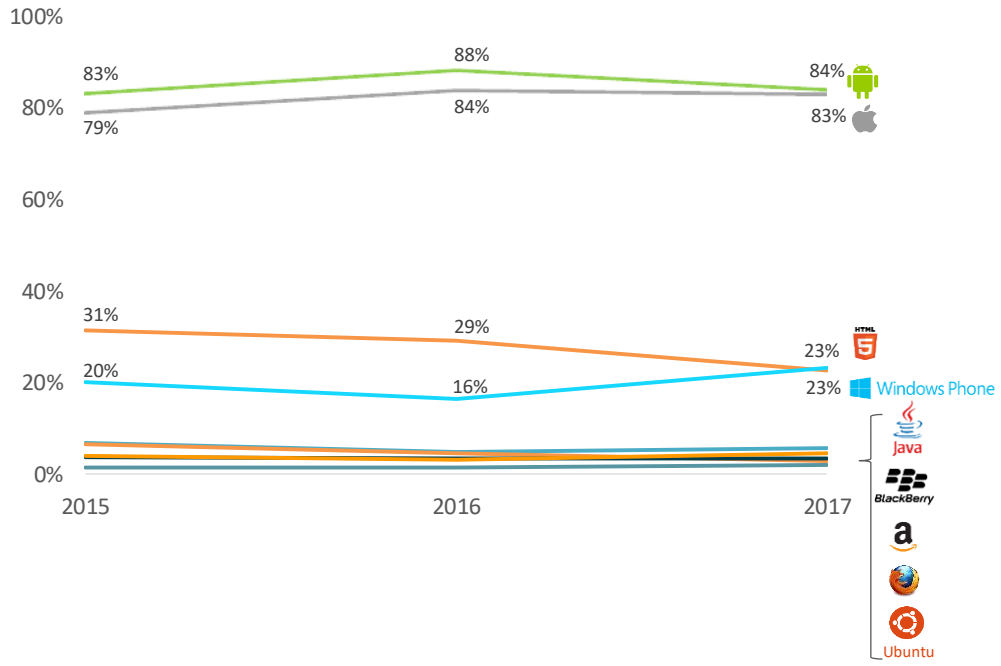
Experience levels and profitability of digital intruders (mHealth app companies) vary significantly. Compared to other digital health stakeholders mHealth app companies are still a very diverse group covering the whole range of e.g. experience level or revenue generated: 14% of mHealth app companies are very experienced, having published their first app in 2010 or before, 38% are newbies with just one or two years of experience. 10% of mHealth app publishers are successful companies with a revenue of $1m per year and above and 22% are rather unsuccessful companies with a revenue <$10k per year.

Android & iOS equally attractive for developers in healthcare

The term "platform wars" sounds like a term from a different century. Over the last few years there has been a heated debate over the most appropriate platform to develop apps for. The outcome of the once infamous wars are two clear winners; iOS and Android – at least when it comes to attractiveness for mobile health app publishers.

ANDROID & IOS EQUALLY ATTRACTIVE; HTML IS LOSING AND WINDOWS PHONE IS GAINING TRACTION AMONG DEVELOPERS

Mobile platforms preference



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

Both operating systems, which have been leading the charge for years, are converging even further in 2017. While Android is staying at around the same level of publisher popularity compared to last year, Apple's iOS has been losing some traction.

On a much lower level HMTL 5 mobile is losing attractiveness for healthcare app developers, whilst Windows phone is again gaining attractiveness. Java ME claims 6% market share and all other platforms only play a marginal role in platform choice.

82% of mobile health app publishers are developing on more than one platform, developing for two platforms, which is in line with last year's findings.

Pharmaceutical companies most active in multiple health sectors

The biggest iOS-lovers are agencies; 95% of agencies develop for iOS (83% on average). Digital intruders (mHealth app companies) are also developing above average for iOS. The least attracted to iOS are telehealth service companies.

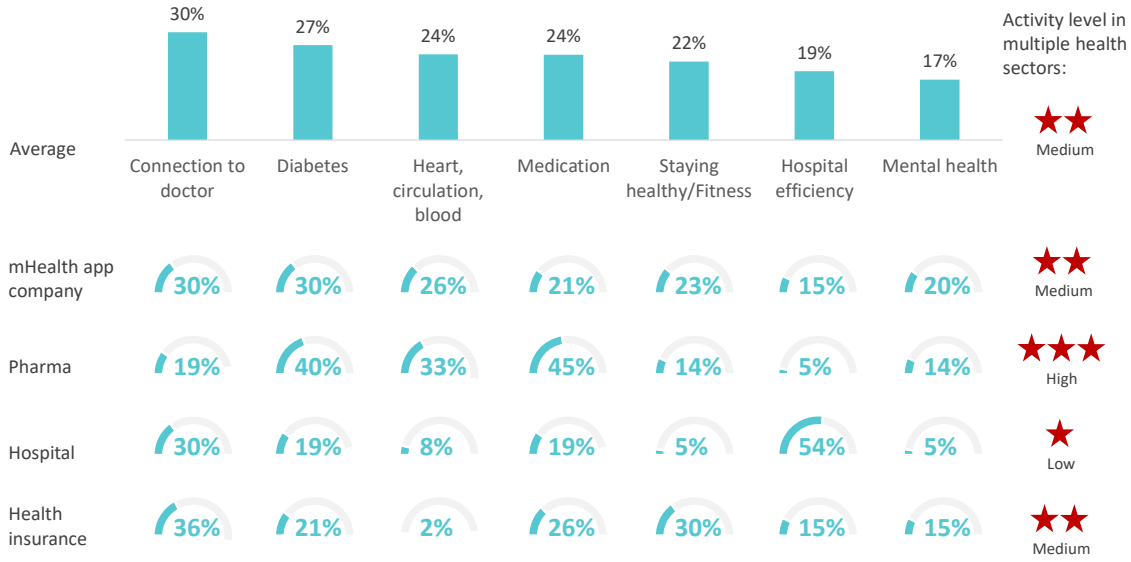
Health apps cover different use cases. The most popular use case, of which 30% of market participants provide services for is "Connection to doctors", followed by "Diabetes", "Heart, circulation, blood" and "Medication". Those use cases differ a lot depending on the type of company. In a comparison between pharma companies, hospitals, health insurances and mHealth app companies the different groups are using their apps as expected, although there are some surprises.

Pharma companies are concentrating on providing products and services for "medication", "diabetes" and "heart, circulation, blood", whereas hospitals are developing apps for "hospital efficiency". mHealth app companies are specializing in areas like "weight management" or "mental health". Health insurers are active above average in "health & fitness".

Telehealth companies are offering way above average services for "connection to doctors" and "heart, circulation, blood" and IT/Tech companies for "hospital efficiency" and "medication"

CONNECTION TO DOCTORS AND DIABETES ARE THE MOST ATTRACTIVE HEALTHCARE SECTORS

Healthcare sectors providing services for:



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

©Research2Guidance 2017

On average, every organization type is active in 3-4 use case segments. Some are more active than others; e.g. pharma companies are most active in multiple segments whereas hospitals are highly specialized, and the least active in multiple segments.

Last year's report's findings revealed that health insurers were expected to offer a broad range of use cases, ranging from "Chronic Disease Management", "Remote Consultation", Health Education" to "Electronic Health Records". This year's results are not – or just to a certain extend – reflecting upon these expectations towards health insurers.

6. Publishers' experience: Digital & mobile health still attracts new entrants every year

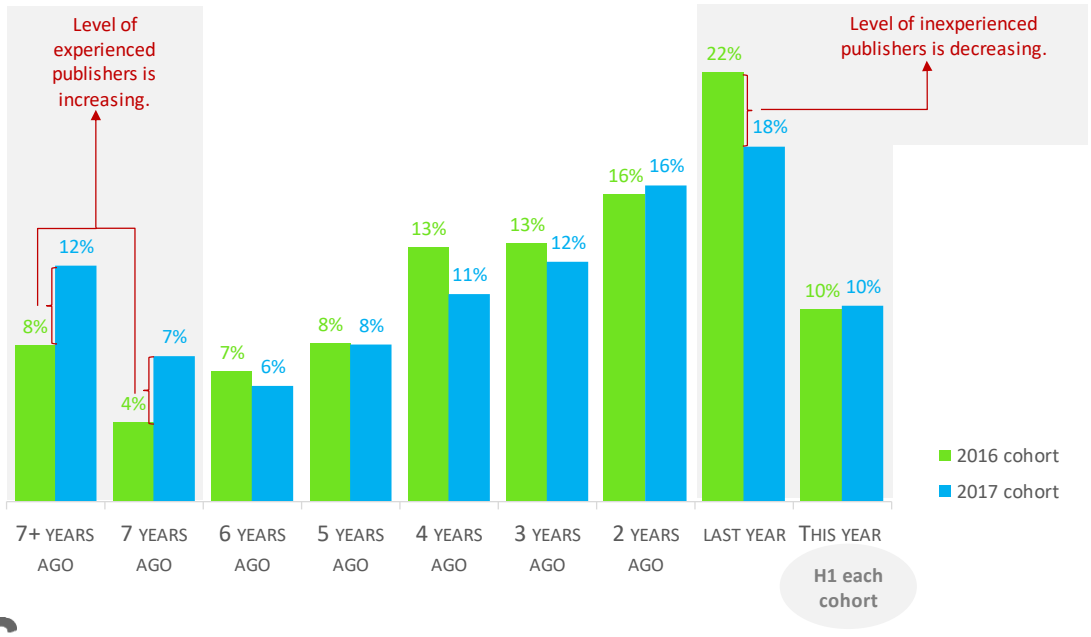
Creating a successful, sustainable digital health business depends on multiple factors. One important key factor is the length of time a publisher has spent bringing apps to market. Seeing as the digital health market is still rather young, extensive experience makes a big difference.

28% of digital healthcare practitioners have little industry experienced

The majority of app publishers in healthcare is rather unexperienced. A share of 28% has developed their first mHealth app either this year or last year. On the other side of the spectrum, 19% of mHealth app publishers have 7+ years of mobile health experience.

THE MARKET FOR MOBILE HEALTH STILL ATTRACTS NEW ENTRANTS. OVERALL APP PUBLISHERS ARE GETTING MORE EXPERIENCED.

Publishing year of first mHealth app



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

Compared to last year, the numbers of digital health app publishers new to the market (less than two years' experience) has declined by 5%. On the other hand, the number of experienced mHealth app publishers (7+ years of practice) has increased by 7%. Thus, the experience level is rising over the years.

Experience in app publishing correlates with location; app publishers from the USA have the most experience in publishing healthcare apps. Within the group of experienced publishers, 42% are from the USA (vs. 36% on average). Subsequently, US-American app publishers use different business models, and are more advanced in technology adoption. The biggest group of inexperienced publishers comes from the APAC region (17% inexperienced publishers from the APAC region vs. 11% on average).

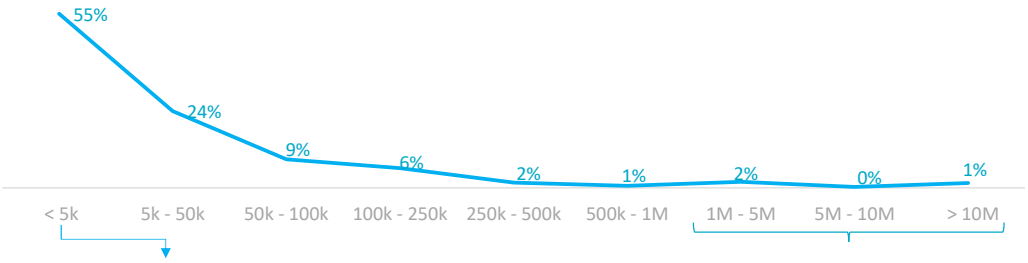
Experience level of digital health practitioners is increasing

The average number of apps published per publisher is 2.0. The number varies depending on the experience level of digital health practitioners.

With a lot of developers being new to the game, the majority of apps are not achieving significant annual download numbers. Most app portfolios only generate a couple of thousand downloads (55% less than 5,000 annual downloads). Nevertheless, a small fraction of 3% successful publishers are reaching high annual download numbers of over 1-million.

THE MAJORITY OF MHEALTH APPS ARE DOWNLOADED LESS THAN 5,000 TIMES

Number of downloads generated with all mHealth apps last year (2016)



Low download numbers		High download numbers
10%	>10 apps published	66%
8%	External development budget >$500k	50%
0%	MAUs >500k	52%
4%	Revenue above $1m	67%
36%	EHR integration	50%
Europe	Region	North America

Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

©Research2Guidance 2017

55% of all health-care apps are download less than 5,000 times

Compared to 2016, changes to this year's categories of annual downloads are minor. There tends to be an increase in low download numbers, and a decrease in higher download numbers, which is in line with the widening gap of supply and demand for mobile health apps. Even though the experience level of app publishers is increasing, it is not reflected in the growth of annual downloads, with the supply of health apps outgrowing the demand as mentioned above.

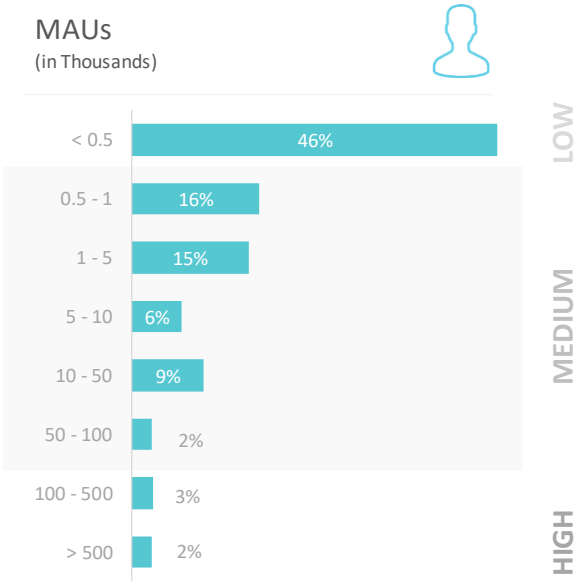
A comparison between publishers with high download numbers and publishers with low download numbers highlights several reasons for success. Generally, they have a larger app portfolio which contributes more downloads. On a technological level, they are using and integrating more technologies into their product/s and service/s.

Publishers with higher downloads tend to have an above average external development budget. This know-how and investment is paying off; mHealth app publishers with high download numbers attract

more users and have a much higher revenue. Two thirds of app publishers with high download numbers say they have revenues of US$1M+.

ONLY 2% OF MHEALTH APP PORTFOLIOS COUNT MORE THAN 500,000 MONTHLY ACTIVE USERS

Number of monthly active users of mHealth app portfolio



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

Low download numbers result in low monthly active users. Since the majority of publishers of mobile health apps have less than 5,000 annual downloads (within the year 2016), the majority are also reporting low monthly active users (MAU) numbers. 46% of mHealth app developers count themselves into the lowest category with less than 500 MAUs. On the other end of the spectrum, only few health app publishers report MAUs of 50,000+.

7. Outlook: Conditions and technologies shaping the future of the digital health market

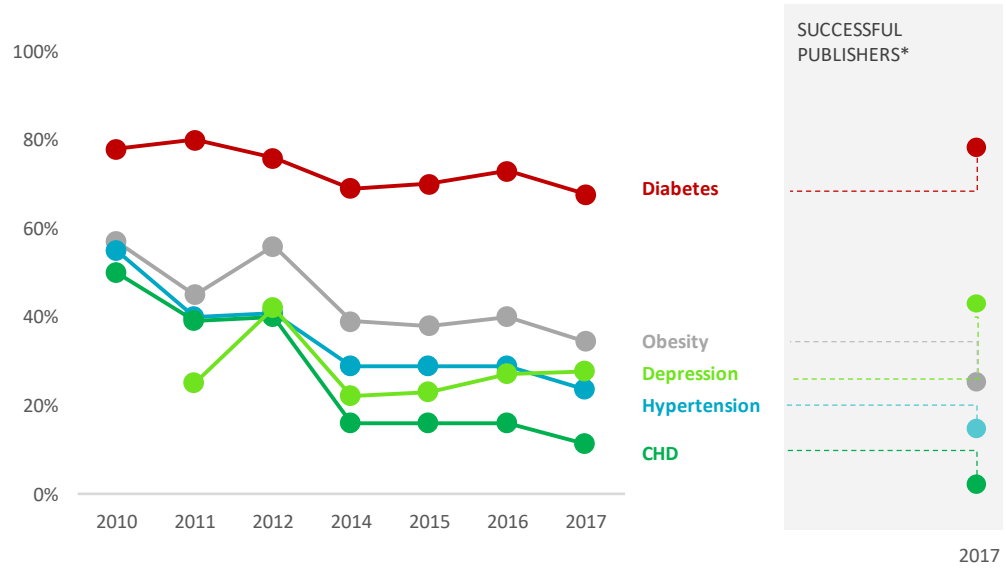
The mHealth Economics reports offer market predictions for the digital health industry. With data dating back 7-years we are able to show and track back the evolution of patterns and developments in the digital health market.

Diabetes continues to offer best market potential for mHealth solutions in the near future

Diabetes continues to be the therapy field with the best market condition for digital health solutions within the near future. Diabetes is followed by "obesity" and "depression". Whilst all chronic diseases have decreased over the course of the last six years – but especially over the last year – there is one therapy field that continues to gain attraction; "depression". Depression is now ranked third as having the best market potential.

DIABETES REMAINS THE LEADING THERAPY FIELD FOR MHEALTH SOLUTIONS; DEPRESSION AS FIELD FOR MHEALTH ON A STEADY RISE

Therapy fields with the best market potential for mHealth in the next 5 years



Note: Study wasn't conducted in 2013.

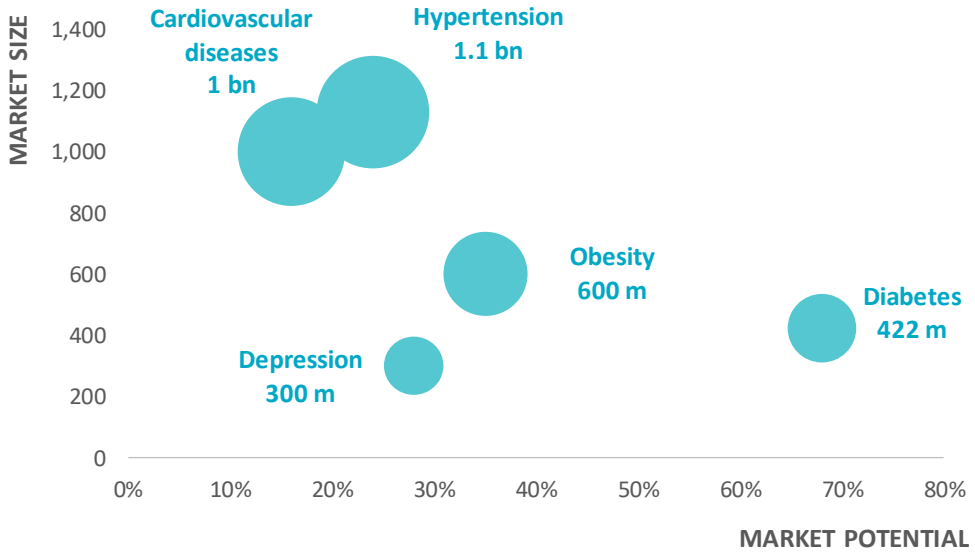
*Successful publishers = >1M USD revenue and max 500 employees

Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

Successful mHealth app publishers have a slightly different opinion about the future best therapy fields, ranking diabetes even higher than the average, and choosing therapy fields such as depression – not obesity – as their number 2. Apart from diabetes and depression, successful publishers are ranking all other therapy fields below the average.

DIABETES AND OBESITY HAVE GREATEST MARKET POTENTIAL BUT NOT THE BIGGEST MARKETS

Therapy with the best market potential for mHealth in the next 5 years; number of cases per therapy field globally



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400; WHO (2017)

Market potential of the above conditions and their actual market size have a negative correlation; use case groups with the highest market potential – diabetes, obesity and depression – have lower cases worldwide than hypertension and cardiovascular diseases with 1bn+ cases each.

Hypertension and CVD are by far the biggest markets in terms of global cases

How will mobile apps find their way to users in the future?

The answer to this question has changed a lot over the years. In 2017 for the first time, "health insurers" are considered to be the most important future distribution channel. The popularity of health insurers as a distribution channel has been slowly increasing over the years, and has even overtaken "app stores" as the best distribution channel.

Over the course of the last year nearly all app distribution channels have disappointed and thus have been devaluated by mHealth app publishers, except one: health insurances.

Nearly all distribution channels that have been considered effective have disappointed mHealth app publishers. In 2010, "hospitals" and "physicians" were thought to be the best future distribution channels, but have lost a lot of their appeal over the course of 7 years, as did "healthcare webpages" and "pharmacies".

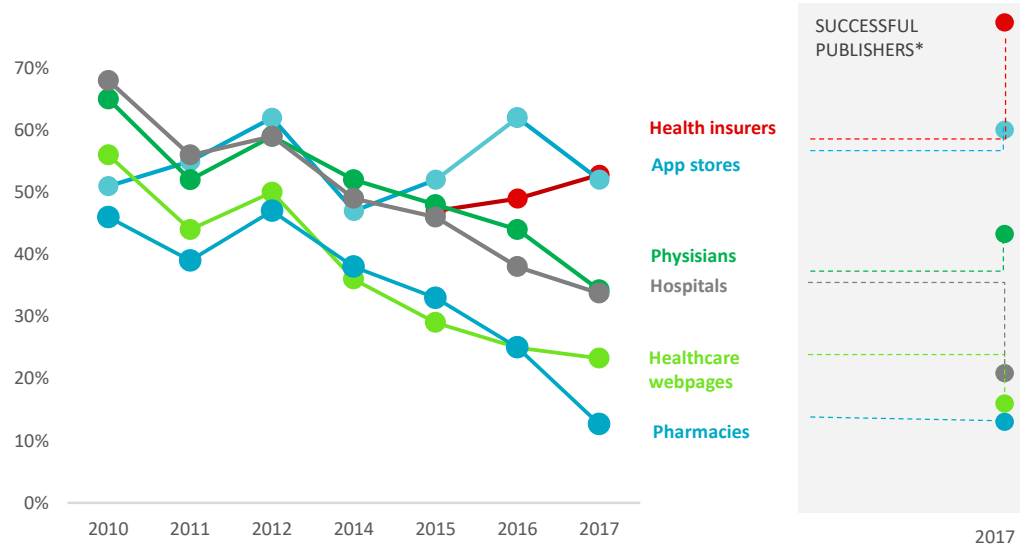
Health insurance companies are the future number one distribution channel for mHealth apps

With the introduction of new digital technologies, new markets can emerge, and entire industries can be reshaped. Which new technologies are going to re-shape the digital health market of tomorrow?

Artificial Intelligence, Blockchain, Internet of Things, 3D printing are the technology buzzwords floating around in 2017, and their impact on nearly every industry are currently, and set to further disrupt the healthcare industry.

HEALTH INSURERS WILL BE THE MOST IMPORTANT DISTRIBUTION CHANNEL FOR MHEALTH APPS WITHIN THE NEAR FUTURE

Distribution channels with best market potential in the next 5 years



Note: Study was not conducted in 2013.

*Successful publishers = >1M USD revenue and max 500 employees

Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

©Research2Guidance 2017

The technologies with the perceived most disruptive potential in the next 5 years is artificial intelligence and remote monitoring. Wearables, IoT (Internet of things) Virtual reality, 3D printing and Blockchain are next in the ranking, leaving 5G as the least disruptive.

Successful mHealth publishers are more bullish about new technologies than the average mHealth publisher. They bet on nearly all technologies to a higher percentage. Especially remote monitoring, IoT and virtual reality. However, they are less optimistic about wearables.

AI and remote monitoring are the technologies that will disrupt the healthcare industry

Whilst the market for digital health is still young and quickly changing, a number of digital health stakeholders have established themselves by developing a products and services with a strong concept and business model. Since most mHealth publishers are rather new to the market, these established and successful stakeholders can serve as best-in-class or role models and pave the way for the new breed of digital intruders.

AI SEEN AS THE MOST DISRUPTIVE TECHNOLOGY; SUCCESSFUL APP PUBLISHERS ARE GENERALLY MORE BULLISH ABOUT NEW TECHNOLOGIES

Most disruptive technologies to the data health sector within the next five years

*Successful publishers = >1M USD revenue and max 500 employees
Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

©Research2Guidance 2017

We invite you to read more about revenue models, technical development and accelerators in mobile healthcare. Feel free to download our other free reports.

Again, we want to especially thank our media partners and sponsors for their ongoing support.

Sincerely,

Your Research2Guidance team.

OTHER REPORTS FROM MHEALTH ECONOMICS 2017/2018

DOWNLOAD FOR FREE

MHEALTH ECONOMICS 2017/2018 - HOW TO DEVELOP AND HOW TO MAKE MONEY WITH MOBILE HEALTH APPS

This report is focused on how to monetize mobile health apps: Download numbers, app marketing, business models, marketing, development costs. The report results are based on answers of more than 2,400 mHealth app developers and healthcare professionals.

The 10 Disruptive Digital Business Models For Health Insurers

An introduction to new business models and digital service offerings. A report full of new ideas and concepts for payers

Includes:

- 10 New Digital Business Models
- 6 Principles Of New Digital Business Models
- 10 Health Insurers Profiles
- 54 Pages, 33 Figures & Tables

PREVIEW REPORT DETAILS

What you get

Becoming a digital health insurance requires more profound changes than moving service offerings online. Digital transformation is about fully embracing a digital business model to interact with customers, generate revenue and gain competitive advantage rather than having the most advanced technology. This report gives an overview of digital enabled business models for health insurance companies that want to supplement their core business or completely transform the way they interact with members.

Why buy this report?

- Explore 10 new digital business models
- Get to know 10 companies applying those new business models and how far they area in their journey
- Know what will impact the insurance industry in the near future

Who should read this report?

- Insurance companies
- Hospital managers
- Digital transformation managers
- Investors
- Analysts

©Research2Guidance 2017 – mHealth Economics 2017/2018 – www.research2guidance.com