_	_	Database	Арр	Name	Device	Area of application	Area of application 2	User	Setting	Broad setting	Broad	Adult/ Childre n	Broad type of study	Broad type of study 2	Sample size	Product availability	Country Conducted	WHO Region conducted	High or LMIC Conducted
1.	2019	Scopus	Арр	Ear Scale	Smartphone	Screening		Self	School	School		Childre n	Validation		85	Commercial	Taiwan	Western Pacific	High
2.	2020	Scopus	Арр	Kids Hearing Game	lpad(tablet)	Screening		Self	Clinic	Clinic		Childre n	Validation		516	Commercial	China	Western Pacific	Upper Middle
3.	2017	Scopus	Арр	_	Smartphone	Treatment	Support	Self	Audiology clinic (Uni)	Clinic		Adults	Feasibility		6	Research	America	Americas	High
4.	2020	Scopus	Арр	Ear Scale	Smartphone	diagnostic		Self	Outpatient department	Clinic		Adults	Validation		88	Commercial	Taiwan	Western Pacific	High
5.	2019	Scopus	Арр	_	Smartphone	diagnostic		Self	Hospital	Clinic		Adults	Validation		60	Commercial	Israel	Eastern Mediteranian	High
6.	2018	Scopus	Арр	_	Tablet	Screening		Self	School	School		Childre n	Design and usability	Validation	122	Research	Thailand	South east Asia	Upper Middle
7.	2020	Scopus	Арр	HearTest	Smartphone	diagnostic		Self	Clinic	Clinic		Adults	Validation		63	Proprietary	South Africa	African	Upper Middle
8.	2016	Scopus	Арр	ShoeBox	Tablet	diagnostic		Self	Consultation room	Clinic		Both	Validation		49	Proprietary	America	Americas	High
9.	2017	Scopus		ShoeBox and EarTrump et	Tablet	diagnostic		Self	Hospital (sound booth)	Clinic		Adults	Validation		22	Proprietary	Canada	Americas	High
10.		Scopus	Арр	uHear	Smartphone	Screening		Self	Audiology clinic (quiet room)	Clinic		Adults	Validation			Commercial	America	Americas	High
11.		Scopus	Арр	ShoeBox	Tablet	diagnostic		Self	Clinic	Clinic		Adults	Validation			Proprietary	Canada	Americas	High
12.		Scopus	Арр	_	Smartphone			Self	Audiology clinic (quiet room)	Clinic		Adults	Validation			Research	Jordan	Eastern Mediteranian	Upper Middle
13.	2018	Scopus	Арр		Smartphone	Treatment		Self	Home environment s	Daily life		Adults	Design and usabil	ity	20	Proprietary	UK	European	High
14.		Scopus	Арр	uHear	Tablet	Screening		Self	Room simulating home or clinic	Clinic		Adults	Validation			Commercial	Israel	Eastern Mediteranian	High
15.		Scopus	Арр	Petralex®				Self	Audiology	Clinic		Adults	Validation			Commercial	Spain and Italy	European	High
16.		Scopus	Арр	EarTrump et	Smartphone	diagnostic		Self	Audiology clinic	Clinic		Adults	Feasibility		42	Commercial	America	Americas	High
17.	2019	Scopus	Арр	EarBone	Smartphone	diagnostic		Self	Audiology clinic	Clinic		Adults	Validation		40	Research	America	Americas	High
18.	2017	Scopus	Арр	HearTest	Smartphone	diagnostic		Self	Audiology clinic	Clinic		Both	Validation		95	Proprietary	South Africa	African	Upper Middle

Supplementary digital content II: Characteristics of identified applications (n=146)

19.				iBrateMe© vibration applicatio														
	2019	Scopus	Арр	n	Smartphone	Screening	Facilitated	Hospital	Clinic	Adu	ults	Validation		20	Commercial	UK	European	High
20.	2012	Scopus	Арр	_	Smartphone	diagnostic	Self	Audiology clinic	Clinic	Adu	ults	Validation		100	Research	Australia	Western Pacific	High
21.	2016	Scopus	Арр	hearScree n	Smartphone	Screening	Facilitated	School	School	Chil n	ildre	Validation		1070	Proprietary	South Africa	African	Upper Middle
22.	2019	Scopus	Арр	HearScre en	Smartphone	Screening	Facilitated	School	School	Chil n	ildre	Validation		104	Proprietary	Kenya	African	Lower middle
23.	2018	Scopus	Арр	HearScre en	Smartphone	Screening	Facilitated	School	School	Chil n	ildre	Feasibility		6242	Proprietary	South Africa	African	Upper Middle
24.	2019	Scopus	Арр	Hearing Test	Smartphone	Screening	Self	Audiology clinic (quiet room)	Clinic	Bot	th	Validation		52	Commercial	India	South east Asia	Lower middle
25.								Home environment										
00	2020	Scopus	Арр	-	Smartphone	Support	Self	S	Daily life	Adu		Validation		44	Commercial	UK	European	High
26.	2020	Scopus	Арр	Sound Scouts	Tablet	Screening	Self	School	School	Chil	ildre	Validation		297	Commercial	Australia	Western Pacific	High
27.	2015	Scopus	Арр	AudCal	Smartphone	diagnostic	Self	Clinic (quiet room)	Clinic	Adu	ults	Validation		110	Commercial	Spain	European	High
28.	2016	Scopus	Арр	DIN	Smartphone	Screening	Self	Hospital (quiet room)	Clinic	Adu	ults	Design and usability	Validation	186	Proprietary	South Africa	African	Upper Middle
29.	2019	Scopus	Арр	HearTest	Tablet	diagnostic	Facilitated	clinic	Clinic	Adu	ults	Validation		617	Proprietary	Malawi	African	Low
30.								Home environment										
31.	2017	Scopus	Арр	-	Smartphone	Support	Self	S	Daily life	Adu	ults	Validation	Feasibility	29	Research	Australia	Western Pacific	High
31.	2014	Coonus	A a a		Tablet	diagnastia	Self	audiology clinic (soundproof booth)	Clinic	Adu	ulta	Validation		0	Research	uk	Furencen	lliab
32.	2014	Scopus	Арр	-	Tablet	diagnostic	Sell	Home	Clinic	Adu	uits	validation		9	Research	ик	European	High
02.	2018	Scopus	Арр	MyHearin gApp`	Tablet	support	self	environment s	Home	Adu	ults	Feasibility		16	Research	Netherlands	European	High
33.								audiology clinic (soundproof										Upper
	2018	Scopus	Арр	DIN	Smartphone	diagnostic	Self	booth)	Clinic	Adu	ults	Validation		109	Proprietary	South Africa	African	Middle
34.	2020	Scopus	Internet	m2Hear	Smartphone	Support(education)	Self	Home environment s	Daily life	Adu	ults	Feasibility		16	Commercial	UK	European	High
35.				Audimatch				audiology clinic (soundproof				,						Ĵ
	2020	Scopus	Арр	app	Tablet	Screening	Self	booth)	Clinic	Adu	ults	Validation	Feasibility	68	Research	Germany	European	High
36.	2017	Scopus	Internet	_	Smartphone	Screening	Self	School	School	Chil n	ildre	Validation		94	Proprietary	Netherlands	European	High

37.	2020	Scopus	Арр	Hearing test	Smartphone	Screening		Facilitated	ENT Clinic	Clinic	Childre n	Validation		50	Commercial	Turkey	Eastern Mediterranean	Upper Middle
38.									Clinic (no	-								Lower
39.	2020	Scopus	Арр	ShoeBox	Tablet	Screening		Facilitated	booth) clinic (sound	Clinic	 Both	Validation		70	Proprietary	India	South east Asia	middle Upper
	2019	Scopus	Арр	HearTest	Smartphone	diagnostic		Self	booth)	Clinic	Adults	Validation		61	Proprietary	South Africa	African	Middle
40.	2020	Scopus	Арр	HearTest	Smartphone	diagnostic		Facilitated	home	Home	Adults	Feasibility		30	Proprietary	Malawi	African	low
41.	2020	Scopus	Арр	HearTest	Smartphone	diagnostic		Facilitated	home	Home	Adults	Feasibility		1344	Proprietary	China	Western Pacific	Upper Middle
42.				hearScree		-					Childre					-		Upper
43.	2019	Scopus	Арр	n Sound	Smartphone	Screening		Facilitated	School	School	n Childre	Feasibility		10362	Proprietary	South Africa	African	Middle
	2020	Scopus	Арр	Scouts	Tablet	Screening		Self	School	School	n	Prevalence		288	Commercial	Australia	Western Pacific	High
44.		-							hospital (quiet and in									Upper
45.	2015	Scopus	Арр	uHear Sound	Smartphone	Screening		Self	booth)	Clinic	Both Childre	Validation Design and		25	Commercial	South Africa	African	Middle
40.	2018	Scopus	Арр	Scouts	Tablet	Screening		Self	School	School	n	usability	Validation	541	Commercial	Australia	Western Pacific	High
46.	2016	Scopus	Арр	Hearing Test	Smartphone	diagnostic		Self	Audiology clinic (booth)	Clinic	Adults	Validation		8620	Commercial	Poland	European	High
47.									Hospital									
	2020	Scopus	Арр	ShoeBox	Tablet	Screening		Self	(emergency department)	Clinic	Adults	Validation		23	Proprietary	America	Americas	High
48.									audiology clinic (sound									Upper
10	2017	Scopus	Арр	-	Smartphone	Treatment		Self	booth)	Clinic	Adults	Validation		100	Research	China	Western Pacific	Middle
49.		-				o ·		16	Uni, clinic, private					100	D			Upper
50.	2020	Scopus	Арр	DIN	Smartphone	Screening		self	practice	Clinic	Adults	Validation		122	Proprietary	South Africa	African	Middle
	2020	Scopus	Арр	_	Tablet	Support		Self	Home	Home	Adults	Feasibility		11	Research	Japan	Western Pacific	High
51.				Ear					Audiology clinic at Uni								Eastern	Upper
52.	2016	Scopus	Арр	Trumpet	Smartphone	diagnostic		Self	(quiet room) Audio clinic	Clinic	 Adults Childre	Validation		32	Commercial	Turkey	Mediteranian	Middle
52.	2018	Scopus	Арр	ShoeBox	Tablet	diagnostic		Self	(booth)	Clinic	n	Validation		32	Commercial	America	Americas	High
53.	2021	Scopus	Арр	HearScre en	Smartphone	Screening		Facilitated	School	School	Childre n	Validation		6805	Proprietary	South Africa	African	Upper Middle
54.	2006	Soonuo			Smortphore	Trootmont	Support	Self	Audio booth	Clinic	Adults	Validation		10	Baaaarah	Sweden	Europeen	Lligh
55.	2006	Scopus	Арр	-	Smartphone	Treatment	Support	Jell		CIIIIC	 Childre	valiuation		10	Research	Sweden	European	High
	2017	Scopus	Арр	ShoeBox	Tablet	diagnostic		Self	Home	Home	n	Validation		1	Proprietary	Canada	Americas	High
56.	2008	Scopus	Арр	MobileAS L	Smartphone	Support		Self	Clinic	Clinic	Adults	Validation		18	Research	America	Americas	High
57.	2019	Scopus	Арр	HearTest	Smartphone	diagnostic		Facilitated	Clinic (quiet room)	Clinic	Adults	Validation		200	proprietary	South Africa	African	Upper Middle

58.											1						Upper
	2020	Scopus	Арр	DIN	Smartphone	Screening		Self	Home	Home	Adults	Validation	665	proprietary	South Africa	African	Middle
59.	2019	Scopus	Арр	HearScre en	Smartphone	Screening		Facilitated	School	School	Childre n	Validation	155	proprietary	Kenya	African	Lower middle
60.				Oticon Opn					Home and work						Denmark		
	2017	Scopus	Арр	hearing aids	Smartphone	Treatment (Blu	uetooth Has)	Self	environment s	Daily life	Adults	Validation	6	Proprietary		European	High
61.	2013	Scopus	Арр	PhoSHA	Smartphone	diagnostic		Self	Soundproof booth	Clinic	Adults	Validation	15	Research	South Korea	Western Pacific	low
62.	2020	Scopus	Арр		Tablet	diagnostic		Self	School	School	Childre n	Feasibility	120	Proprietary	Nicaragua	Americas	Lower middle
63.	2020	Scopus	Арр	uHear	Smartphone	Screening		Facilitated	Otology clinic	Clinic	Adults	Validation	41	Commercial	Taiwan	Western Pacific	High
64.									Community	-				-			
	2020	Scopus	Арр	_	Tablet	Screening		Self	centre (quiet room)	Clinic	Adults	Validation	132	Research	China	Western Pacific	Upper Middle
65.	2015	Scopus	Арр	ShoeBox	Tablet	diagnostic		Self	Audio clinic (quiet room)	Clinic	Childre n	Validation	80	Proprietary	Canada	Americas	High
66.	2018	Scopus	Арр	Hearing Test	Smartphone	diagnostic		Self	police station	Occupationa I	Adults	Validation	88	Commercial	India	South east Asia	Lower middle
67.									Home						Taiwan		
	2018	Scopus	Арр	SmartHea r	Smartphone	Treatment (He replacement)	earing aid	Self	environment s	Daily life	Adults	Validation	5	Research		Western Pacific	High
68.	2016	Scopus	Арр	HearScre en	Smartphone	Screening		Facilitated	Home	Home	Both	Validation	706	Proprietary	South Africa	African	Upper Middle
69.	2014	Scopus	Арр	HearScre en	Smartphone	Screening		Facilitated	School	School	Childre n	Validation	162	Proprietary	South Africa	African	Upper Middle
70.	2016	Scopus	Арр	uHear	Smartphone	Screening		Facilitated	Home	Home	Adults	Validation	26	Commercial	Israel	Eastern Mediteranian	High
71.	2017	Scopus	Арр	HearScre en	Smartphone	Screening		Self	Clinics	Clinic	Both	Validation	1236	Proprietary	South Africa	African	Upper Middle
72.		Scopus	Арр		Smartphone	Screening		Self	Soundproof	Clinic	Adults	Validation		Research	Korea	Western Pacific	Low
73.		Scopus	Арр	-	Smartphone	0		Self	Soundproof	Clinic	Adults	Validation		Research	China	Western Pacific	Upper
74.				-				Self	hospital	Clinic		Validation				Eastern Mediteranian	
75.	2013	Scopus	Арр	uHear Hearing	Smartphone	uiagnostic		Sell	UNICE	CIINIC	Adults	validation	32	Commercial	Israel America	wediteraniañ	High
75.				Aid											America		
				Learning and													
				Inference					Home								
	2016	Scopus	Арр	Controller (HALIC).	Smartphone	Treatment	Support	Self	environment s	Daily life	Adults	Design and usabilit	y 16	Research		Americas	High
76.				HearScre en and								-					Upper
	2019	Scopus	Арр		Smartphone	Screening	Diagnostic	Facilitated	home	Home	Both	Validation	511	Proprietary	South Africa	African	Middle

-				1	1				r r					r		1	
77.	2020	Scopus	Арр	ShoeBox	Tablet	diagnostic	Facilitated	Outpatient department	Clinic	Δ	Adults	Validation	126	Proprietary	uk	European	High
78.	2016	Scopus	Арр	ShoeBox	Tablet	screening	self	School	School	C	Childre	Validation	218	Proprietary	Canada	Americas	High
79.										C	Childre				Dominican		Upper
80.	2018	Scopus	Арр	ShoeBox	Tablet	screening	self	School	School	n	1	Feasibility	423	Proprietary Research	Republic	Americas	Middle Upper
	2017	Scopus	Арр		Tablet	Screening	Self	Clinic	Clinic	Δ	Adults	RCT	30		Brazil	Americas	Middle
81.				-		Ű		Soundproof		C	Childre						
82.	2019	Scopus	Арр	ShoeBox EarTrump	Tablet	diagnostic	Self	booth	Clinic	n	1	Validation	40	Proprietary	America	Americas	High
02.	2018	Scopus	Арр	et, Audiogra m Mobile, Hearing Test with Audiogra m	Tablet	screening	Self	clinic (quiet room)	Clinic		Adults	Feasibility	107	Commercial	America	Americas	High
83.	2010	ocopus	745		Tablet	scicening	UCII	100111)	Onnie		Childre	1 casibility	107	Commercial	America	Americas	Upper
	2020	Scopus	Арр	P.E.T.I.T	Tablet	screening	Self	Quiet room	School	n		Validation	244	Research	Brazil	Americas	Middle
84.	2020	Scopus	Арр		Smartphone	Support	Self	Home environment s	Daily life	۵	Adults	Feasibility	51	Research	America	Americas	High
85.																L	
86.	2021	Scopus	Internet	m2Hear	Smartphone	Support	Self	home Clinical test	Daily life	A	Adults	Feasibility	59	Commercial	uk	European	High
	2020	Scopus	Арр	GoAudio	Tablet	diagnostic	Self	room (no sound booth)	Clinic	۵	Adults	Validation	24	Proprietary	America	Americas	High
87.	2013	Scopus	Арр		Tablet	diagnostic	Self	Soundproof booth	Clinic	C	Childre 1	Validation	85	Research	Canada	Americas	High
88.	2018	Scopus	Арр	DIN	Smartphone	screening	Self	Quiet room (clinic, private practice< university	Clinic	A	Adults	Validation	454	Proprietary	South Africa	African	Upper Middle
89.						Ŭ		,		C	Childre						
90.	2017	Scopus	Арр	ShoeBox	Tablet	screening	Self	School Home	School	n	1	Validation	120	Proprietary	Canada	Americas	High
	2020	Scopus	Арр	_	Smartphone	Support	Self	environment s	Daily life	Δ	Adults	Validation	19	Research	America	Americas	High
91.		Scopus	Арр	– Easy Alarm	Smartphone		Facilitated	Home and work environment s	Daily life	A	Adults	Feasibility	8	Commercial	Italy	European	High
92.				Agilis Audiogra				Soundproof									
93.	2018	Scopus	Арр	m	Tablet	diagnostic	Self	booth	Clinic	E	Both	Validation	27	Proprietary	America	Americas	High
	2016	Scopus	Арр	_	Tablet	diagnostic	Self	home	Home	A	Adults	Validation	19	Research	America	Americas	High

94.									otolaryngolo										
	2021	Scopus	Арр	Vibrator'	Smartphone	screening		Self	gy department	Clinic	Adult		/alidation		50	Commercial	Israel	Eastern Mediteranian	High
95.			Арр		Smartphone			Facilitated	Quiet room (Speech, Language and Hearing (SLH) Teaching Centre)	Clinic	Both		Validation			Proprietary	Brazil	Americas	Upper Middle
96.		Scopus	Арр	HearTest		diagnostic		Self	Brazilian Social Service of Industry (guiet room)	Occupationa	Adult	s V	Validation			Proprietary	Brazil	Americas	Upper Middle
97.		Scopus	Арр	Hearing Test	Smartphone			Self	home	Home	Adult		√alidation			Commercial	Poland	European	High
98.			Арр	Smart Hearing	Tablet	Screening		Self	School	School	Child	re	√alidation			Proprietary	China	Western Pacific	Upper
99.		Reference		liounig	Smartphone	Treatment	Support	Self	Home and work environment	Daily life	Adult		Validation			Proprietary	Australia	Western Pacific	Upper
100.			Арр	– HearZA	Smartphone			Self	Home environment	Home	Adult		Validation			Proprietary	South Africa	African	Upper Middle
101.		Reference		indui2.	Tablet	screening		Self	School	School	Child	re	Validation			Research	China		Upper Middle
102.	2014	Reference	Арр	_	Tablet	screening		Facilitated	School	School	Child n		/alidation		6231	Research	china	Western Pacific	Upper Middle
103.	2018	PubMed	Арр	WordRec	Smartphone	diagnostic		Self	Audiology clinic (quiet room)	Clinic	Adult		Design and usability	Validation	20	Research	America	Americas	High
104.	2016	PubMed	Арр	Mobile Based Assistive Listening System (MoBALS)	Smartphone	Treatment	Support	Self	Home environment s	Daily life	Adult		Design and usability	Validation	2	Commercial	Brazil	Americas	Upper Middle
105.	2016	Reference		hearScree n	Smartphone	Screening		Facilitated	School	School	Child n		Validation		1070	Proprietary	South Africa	African	Upper Middle
106.	2018	Reference	Internet	DDT	Tablet	diagnostic		Self	quiet room	Clinic	Adult	s V	Validation		82	Proprietary	Belgium	European	High
107.	2018	Reference	Арр	MobEval app	Smartphone	Support		Self	Home environment s	Daily life	Adult	s V	Validation		10	Commercial	Australia	Western Pacific	High
108.	2014	Reference	Арр		Smartphone	Treatment		Self	Home environment s	Daily life	Adult	s \	√alidation		30	Proprietary	Korea	Western Pacific	low
109.		Reference		- ShoeBox	Tablet	screening		both	School	School	Both		/alidation			Proprietary	Kenya	African	Lower middle

110.								clinic and			Childre						Lower
	2018	PubMed	Арр	ShoeBox	Smartphone	screening	Facilitated	school	Clinic	School	n	Feasibility	87	Proprietary	Kenya	African	middle
111.		Web of		Hearing Test				auiet clinic									Lower
	2016	Science	Арр	Pro™	Smartphone	screening	Facilitated	room	Clinic		Both	Feasibility	60	Commercial	Nigeria	African	middle
112.				Wireless													
				Automate d Hearing													
				Test					Occupations								
	2017	Reference	Арр	System (WAHTS)	Tablet	diagnostic	Facilitated	conference room	Occupationa I		Adults	Validation	20	Research	America	Americas	High
113.								quiet room									
	2014	Reference	Арр	uHear	Smartphone	screening	Self	(audiology clinic)	Clinic		Adults	Validation	60	Commercial	America	Americas	High
114.			-	Hearing				Soundproof									
115.	2018	Reference	Арр	Test	Smartphone	diagnostic	Self	booth	Clinic		Adults	Validation	70	Commercial	Poland	European	High
115.	2016	Reference	Арр	uHear	Smartphone	screening	Self	Clinic	Clinic		Adults	Validation	33	Commercial	Belgium	European	High
116.				EarTrump				conference									
447	2015	Reference	Арр	et	Tablet	diagnostic	Self	room	Clinic		Adults	Validation	208	Commercial	America	Americas	High
117.	2017	PubMed	Арр	ShoeBox	Tablet	diagnostic	Self	home	Home		Childre n	Validation	1	Proprietary	Canada	Americas	High
118.				Companio		-											
				n (SoundWo													
	2019	Reference	A n n	rld	Smartphone	Treatment	Self	hama	Home		Adults	Validation	57	Commercial	Australia	Mastern Desifie	Lline
119.	2010	Relefence	Арр	Solutions)	Smartphone	Treatment	Sell	home Vehicle with	HUITIE		Adults	Validation	57	Commercial	Australia	Western Pacific	nigii
110.	0040	Web of		o	-			sound tested	011		Childre			D			Lower
120.	2019	Science	Арр	ShoeBox Companio	Tablet	diagnostic	Facilitated	booth	Clinic		n	Validation	387	Proprietary	Ghana	African	middle
120.				n													
				(SoundWo rld				Home environment									
	2016	Reference	Арр	Solutions)	Tablet	Treatment	Self	s	Daily life		Adults	Validation	5	Commercial	Australia	Western Pacific	High
121.				hearScree				Clinic room (no sound									Upper
	2018	Reference	Арр	n	Smartphone	screening	Facilitated	booth)	Clinic		Both	Prevalence	1236	Proprietary	South Africa	African	Middle
122.				hearScree				Quiet room in			Childre						
	2017	Reference	Арр	n	Smartphone	screening	Facilitated	community	Clinic		n	Prevalence	281	Proprietary	Malawi	African	low
123.								Audiology									
	2013	Reference	Арр	_	Tablet	diagnostic	Self	clinic and Lab	Clinic		Adults	Validation	55	Research	Canada	Americas	High
124.				Etymotic													
				'Home Hearing													
	2010	PubMed	Арр	Tesť (HHT),	Tablet	diagnostic	Self	Carpeted classroom	School		Adults	Validation	110	Proprietary	America	Americas	High
125.	2013	- upivieu	, .hh	(, , , , , , , , , , , , , , , , , , ,	abiot	alagnostic	001	0/000100111	001001		Childre		112	riophotary	Anichida	, anonodo	i ngin
	2018	Reference	Internet	DTT	Tablet	screening	Self	School	School		n	Validation	10252	Proprietary	Belgium	European	High

127. 208 Reference App Paraforms Appendix Paraforms Paraforms Clinic Dots Validation 1.08 Proprietary South Atica Mixed Made 127. 2016 Reference App Harring Appoint Appoin	126.								Clinic room	1									
127. 2016 Reference App Hearing Smartphone diagnostic Pealtanted Opper Addits Validation 100 Commercial Turkey Reference Moderarian Mode	120.	2018	Reference	Арр	hearScree n	Smartphone	screening	Facilitated	(no sound	Clinic		Both	Validation		1084	Proprietary	South Africa	African	
Image: Note: Not	127.						g		,							,			
120 2018 Web of Science App App App App Interform App App Science App App App App App Interform App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App App		2016	Reference	Арр		Smartphone	diagnostic	Facilitated		Clinic		Adults	Validation		100	Commercial	Turkey		
u_{2015} w_{20} <	128.																		
128. 10 Hendsom 10 Hendsom 10 Facilitated School Childre Facilitated			Web of		hearScree														Upper
Image: bubble App Snack or specific or speci		2016	Science	Арр	n	Smartphone	screening	Facilitated	(quiet room)	Clinic		Adults	Validation		94	Proprietary	South Africa	African	Middle
100PubMedAppShoeksSmartphoneScreeningFailutedSchoolSchoolnEvaluation127ProprietaryKeryaMiciaemiciae130.2017ReferenceAppAudoga m MobileTabletdiagnosticFailutedBioloby clinicClinicAdultsValidation20CommercialNew ZaelandNew Zaeland	129.											Childre							lower
L2017ReferenceAppAudiogram m MobileTabletdiagnesticFacilitated bothClinicAudusValidation20CommercialNew ZaaladWestern PacificHigh131.2018ReferenceAppuHearSmarphonesceeningSetSoutphore both and clinicClinicAdutsFeasibility1270CommercialNew ZaaladWestern PacificHigh132.2020Web of utableInternetm2HearSmarphonesceeningSetSetSoutphore singenAdutsFeasibility1270CommercialNew ZaaladWestern PacificHigh133.2018PubMedAppDINTabletdiagnosticSetSetSoutphore singenAdutsValidation12ProprietaryNethertandsEuropeanHigh134.2018PubMedAppDINTabletdiagnosticSetSetSoutphore singenClinicAdutsValidation12ProprietaryNethertandsEuropeanHigh135.2020PubMedAppDioCalaSmartphoneTreatmentSetTabletTabletTabletSchoolClinicAdutsValidation18CommercialAmericaHigh135.2020PubMedAppDioCalaSmartphoneTreatmentSetTabletTabletTabletTabletTabletTabletTabletTabletTabletT		2019	PubMed	Арр		Smartphone	Screening	Facilitated	School	School			Evaluation		127	Proprietary	Kenya	African	
131.2017ReferenceAppm MobileTabletdiagnosticFacilitatedboothClinicAdultsValuationCorrectionCorrectionNew ZaatandWestem PacifieHigh131.2018ReferenceApputhearSmatphonesceeningSelfClinic corrClinicAdultsFeasibility17.5CorrumericalNew ZaatandMestem PacifieHigh132.2020ScienoInternetm2HearSmatphonesceeningSelfHomeAdultsFeasibilityValidation1.5ResearchukEuropeanHigh133.2020ScienoInternetm2HearSmatphonesupportSelfHomeAdultsValidation1.5ResearchukEuropeanHigh134.2016PubMedAppDINTabletdiagnosticSelfSelfSelfNorthAdultsValidation1.5ResearchukEuropeanHigh134.2016PubMedAppDINTabletdiagnosticSelfSelfSelfSelfSelfAdultsValidation1.2ProprietaryNatheriasEuropeanHigh135.2020PubMedAppDINTabletdiagnosticSelfSelfSelfSelfClinicAdultsValidation1.8CommercialAmericaAmericaHigh136.2020PubMedAppOncalSmatphoneTreat	130.				A														
Le2016ReferenceAppuHeadSmatphoneScreeningSelfboldClinicAdultsPeasbility17.0CommercialDmanEastermMediterainalMedi		2017	Reference	Арр		Tablet	diagnostic	Facilitated		Clinic		Adults	Validation		20	Commercial	New Zealand	Western Pacific	High
2016ReferenceAppUfearSmatphoneSerierSelfClinicAdultsFeasibility70CommercialDmanMediteranianHigh132.Web of 2020ScalanamemathemmathemSelfHorne environmentMarceDesign and usabilityValidation15ResearchK.EuropeanHigh133.2016PubMedAppDINTabletdiagnosticSelfSelfAdultsAdultsValidation15ResearchK.EuropeanHigh134.2016PubMedAppDINTabletdiagnosticSelfSelfAdultsValidation12PoprietaryNetherlandsEuropeanHigh134.2016PubMedAppDINTabletdiagnosticSelfSelfClinicAdultsValidation12PoprietaryNetherlandsEuropeanHigh134.2013ReferenceAppDINTabletdiagnosticSelfForintClinicAdultsValidation18CommercialAmericaAmericaHigh135.2020PubMedAppOlcclaSmartphoneTreatmentSelfForintClinicAdultsValidation12PoprietarySouth AricaMericaMericaMericaMericaMericaMericaMericaMericaMericaMericaMericaMericaMericaMericaMericaMericaMerica	131.																		
132. Web of Science Unit memet m2Hear Smatphone support Self Home environment sudiology diric (scamppoot Design and usability Design and usability Validation 15 Research uk European High 133. 2016 PubMed App DIN Tablet diagnostic Self Self Adults Validation 12 Proprietary Netherlands European High 134. 2016 PubMed App DIN Tablet diagnostic Self Self Adults Validation 12 Proprietary Netherlands European High 134. Ears (Ear (Ear (Ear)) Self Self Self Clinic Adults Validation 18 Commercial America America High 135. 2020 PubMed App OtoCalc Smatphone Itement Self Clinic Adults Validation 22 Proprietary South Africa African Upper 136. 2020 PubMed App Naccalc Smatphone scre		2016	Reference	Ann	uHear	Smartphone	screening	Self		Clinic		Adults	Feasibility		70	Commercial	Oman		High
Le2020Web of lowInternetm2HearSmartphonesupportSeifenvironment sHomeAdultsDesign and usabilityValidation15ResearchukEuropeanHigh133.2016PubMedAppDINTabletdiagnosticSeifSeifSoithClinicAdultsValidation12ProprietaryNetherlandsEuropeanHigh134.2016PubMedAppDINTabletdiagnosticSeifSeifSeifClinicAdultsValidation12ProprietaryNetherlandsEuropeanHigh134.2013ReferenceAppb).SmartphoneTreatmentSeifToinicAdultsValidation18CommercialAmericaAmericaHigh135.2020PubMedAppDecaleSmartphoneTreatmentSeifToinicClinicAdultsValidation18CommercialAmericaAmericaHigh136.2020PubMedAppDecaleSmartphonesceeningFacilitatedTsinicSchoolChildeChildeAdultsValidation12ProprietarySouth AfricaMicca137.2020PubMedAppDecaleSmartphonesceeningFacilitatedSchoolSchoolChildeAdultsValidation12ProprietarySouth AfricaMicca137.2020PubMedAppFacilitatedSe	132.	2010		744	uriour	omarphone	borooning			On no		/ luulio	recolonity		10	Commercial	oman	Weateranian	ingn
133. 2016 PubMed App Div Tablet diagnostic Self audiclogy (coundproof booth) audiclogy (coundproof booth) audiclogy (coundproof booth)		0000		1		One estate and		0-16	environment			A) / = ; = = 4; =	45	Descent		F	l l'ada
2016 PubMed App DIN Tablet diagnostic Self clinic dropped both Adults Validation 12 Proprietary Netherlands European High 134. Image: Self Self Self Self Self Self Adults Validation 12 Proprietary Netherlands European High 134. Image: Self Self Self Self Self Adults Validation 18 Commercial America America High 135. 2013 Reference App OtoCac Smartphone Treatment Self TB clinic Clinic Adults Validation 18 Commercial America Americas High 135. 2020 PubMed App hearScree Smartphone screening Facilitated School School Clinic Adults usability Validation 122 Proprietary Matrica Arican Midree 136. 2020 PubMed App nearce Smartphone Screening Scre	133	2020	Science	Internet	mzHear	Smartphone	support	Self	s	Home		Adults	usability	validation	15	Research	ик	European	Hign
2016PubMedAppDINTabletdiagnosticSelfboothClinicAdultsvalidation12ProprietaryNetherlandsEuropeanHigh134.Imachine, LLC) and MicropeanMachine, LLC) and MicropeanMac	155.								clinic										
134. Eas (Ear Machine, LLC) and Microphone Eas (Ear Machine, LLC) and Microphone Eas (Ear Machine, LLC) and Microphone Audiology (PocketLa Pop Audiology (Dinic (Quiet Promited) Clinic Adults Validation 18 Commercial Americas High 135. 2020 PubMed App OtoCalc Smartphone Treatment Self TB clinic Clinic Adults Design and Usability Validation 22 Proprietary South Africa African Middle 136. 2020 PubMed App hearScree n Smartphone school School School Childre Audults Validation 122 Proprietary South Africa African Middle 137. 2019 PubMed Internet		2016	PubMed	Ann		Tablet	diagnostic	Self		Clinic		Adults	Validation		12	Proprietary	Netherlands	European	High
Image: series of the series	134.	2010	Tubinou	7,66		Tublet	diagnootio	0011	boouty			/ louito	Vullaulon		12	riophotary	realization	Luiopoun	i ligit
Image: series of the series					Machine,														
136. 2013 Reference App $(Pockella$ $b),$ $smatphone$ $Treatment$ $Self$ $room)$ $Clinic$ $Adults$ $Validation$ 18 $Commercial$ $Americal$																			
2013ReferenceAppb),SmattphoneTreatmentSelfroom)ClinicAdultsValidation18CommercialAmericalAmericaAmeric					e (Pocketl a														
$\frac{1}{136} 2020 PubMed App OtoCalc Smartphone diagnostic Martphone diagnostic Facilitated TB clinic Clinic Adults uability Validation 22 Proprietary South Africa African Middle \\ \frac{1}{136} 2020 PubMed App hearScree \\ PubMed Internet L Tablet diagnostic Martphone Screening Martphone Screening Martphone Screening Martphone School School N \\ School School N \\ Home N \\ Adults Feasibility Martphone Screening Martphone Martph$		2013	Reference	Арр	•	Smartphone	Treatment	Self		Clinic		Adults	Validation		18	Commercial	America	Americas	High
136.11<	135.															_			
2020PubMedAppnSmartphonescreeningFacilitatedSchoolSchoolnFeasibility122ProprietaryHaitiAmericasmiddle137.2019PubMedInternet_TabletdiagnosticSelfSchoolSchoolnNFeasibility9SelfSchoolNNNNSelfNNNNNNSelfNNN	400	2020	PubMed	Арр		Smartphone	diagnostic	Facilitated	TB clinic	Clinic			usability	Validation	22	Proprietary	South Africa	African	
137.2019PubMedInternetTabletdiagnosticSelfHome environment sAdultsFeasibility9ResearchukEuropeanHigh138.2018PubMedAppEasyHear TM GrandTreatmentSelfsHome environment sAdultsFeasibility9ResearchukEuropeanHigh138.2018PubMedAppEasyHear TM GrandTreatmentSelfsbilly lifeAdultsValidation43ProprietaryChinaWestern PacificMiddle139.2021PubMedAppTrain2Hea rTabletSupportSelfsHome environment sAdultsFeasibility20ResearchGermanyEuropeanHigh140.2021ScopusApp.SmartphoneAwareness.SelfDaily life.Childre nAdultsFeasibility20ResearchGermanyEuropeanHigh141	136.	2020	PubMed	App	hearScree n	Smartphone	screening	Facilitated	School	School			Feasibility		122	Proprietary	Haiti	Americas	
2019PubMedInternet_TabletdiagnosticSelfsHomeAdultsFeasibility9ResearchukEuropeanHigh138.2018PubMedApp $\frac{FasyHear}{M}$ GrandSmartphoneTreatmentSelfSelfDaily lifeAdultsValidation43ProprietaryChinaWestern PacificValidation139.2001PubMedApp $\frac{Train2Hear}{r}$ SupportSelfSelfSelfAndAdultsValidation43ProprietaryChinaWestern PacificValidation140.2001PubMedAppTabletSupportSelfSelfDaily lifeAAdultsFeasibility20ResearchGermanyEuropeanHigh141.ConumercialAppSmartphoneAwarenessSelfDaily lifeAChildeNatibation311CommercialNetherlandsEuropeanHigh141.ConumercialAppSmartphoneAwarenessSelfDaily lifeASelfSelfSelfAdultsFeasibilitySelfSelfSelfAdultsFeasibility20ResearchSelfSelfSelfSelfAdultsFeasibilitySelfSelfSelfAdultsFeasibilitySelfSelfSelfAdultsFeasibilitySelfSelfSelfSelfSelfSelfSelfSelfSelfSelfSelfSelfSelfSelf <td>137.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5</td> <td></td> <td>Home</td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	137.						5		Home				,						
138.2018PubMedAppEasyHear $M Grand$ SelfHome sDaily lifeAdultsValidation43ProprietaryChinaWestern PacificUpper Middle139.2021PubMedAppTrain2Hea rTabletSupportSelfHome sHome environment sAdultsFeasibility20ResearchGermanyEuropeanHigh140.2021ScopusApp.SmartphoneAwareness.SelfDaily life.Childre nChildre311CommercialNetherlandsEuropeanHigh141		2010	PubMed	Internet		Tablet	diagnostic	Solf	environment	Home		Adulte	Feasibility		0	Research	uk	European	High
2018PubMedAppEasyHear M GrandSmartphoneTreatmentSelfenvironment sDaily lifeAdultsValidation 43 ProprietaryChinaWestern PacificUpper Middle139. 2021 PubMedApp $rain2Hearrrain2Hearrrain2Hearrrain2Hearsupportrain2Hear$	138	2019	FUDIVIEU	memer	-	TADIEL	ulagriostic	0011	s Home	TIOTTIE		Aduits			9	Research	ил		i ligit
139. 2021 PubMed App Train2Hea r Tablet Support Self Home environment s Home Adults Feasibility 20 Research Germany European High 140. 2021 Scopus App . Smartphone Awareness . Self Daily life . Childre n Validation 311 Commercial Netherlands European High 141. .	100.																		
100 2021 PubMed App Train2Hea r Support Self environment s Home Adults Feasibility 20 Research Germany European High 140. 2021 Scopus App Smartphone Awareness Self Daily life Childre validation 311 Commercial Netherlands European High 141.	400	2018	PubMed	Арр	[™] Grand	Smartphone	Ireatment	Self	s	Daily life		Adults	Validation		43	Proprietary	China	Western Pacific	Middle
140. 2021 Scopus App . Smartphone Awareness . Self Daily life . Childre n N 311 Commercial Netherlands European High 141. <	139.				Train2Hea														
2021 Scopus App . Smartphone Awareness . Self Daily life . n Validation 311 Commercial Netherlands European High 141. - </td <td></td> <td>2021</td> <td>PubMed</td> <td>Арр</td> <td>r</td> <td>Tablet</td> <td>Support</td> <td>Self</td> <td>s</td> <td>Home</td> <td></td> <td>Adults</td> <td>Feasibility</td> <td></td> <td>20</td> <td>Research</td> <td>Germany</td> <td>European</td> <td>High</td>		2021	PubMed	Арр	r	Tablet	Support	Self	s	Home		Adults	Feasibility		20	Research	Germany	European	High
	140.	2024	Seenue	Ann		Smortphone	Awaranaaa	Solf	Daily life				Validation		244	Commorgial	Nothorlanda	Europeen	Lliab
	141	2021	ocopus	Abb		Smartprione	Awareness .	Jell				11	vailuation		311	Commercial	ivelienands	European	nign
	141.	2021	Scopus	Арр	hearTest	Smartphone	Diagnostic	Self	Clinic			Adults	Validation		39	Proprietary	America	Americas	High

142.	2021	Scopus	Арр	Apollo SignSoun d	Smartphone	Support	Self	Daily life			Design and usability	5	Research	Brazil	Americas	Upper Middle
143.		<u> </u>	Арр	Kids Hearing Game		Screening	Self	Clinic		Childre	Validation			America	Americas	High
144.	2021	Scopus	Арр		Smartphone	Awareness	Self	Daily life		Childre n	Validation	314	Commercial	Netherlands	European	High
145.	2021	Scopus	Арр	oIMEGA	Smartphone	Support	Self	Daily life		Adults	Validation	24	Commercial	Germany	European	High
146.	2021	PubMed	Арр	dBTrack	Smartphone	Awareness	Self	Daily life		Adults	Validation	19	Commercial	South Africa	African	Upper Middle