SafeCheck

Senior Safety & Wellness App

Minimum Viable Product (MVP) Specification

Version 1.0

December 2024

Target Markets: United States, United Kingdom, Canada, Australia

1. Executive Summary

SafeCheck is an all-in-one senior safety and wellness app that combines daily check-ins, health tracking, cognitive exercises, and family monitoring into a single, easy-to-use platform. Unlike existing solutions that require seniors and their families to juggle multiple apps, SafeCheck provides comprehensive care in one unified experience.

1.1 The Problem

- 27% of US adults aged 60+ live alone (14+ million people)
- Existing apps are fragmented: safety check-ins, medication reminders, brain games, and family communication require 3-5 separate apps
- No app provides early cognitive decline detection through daily micro-assessments
- Families lack visibility into health trends—only binary "checked in" or "didn't check in" data
- 90% of seniors want to age in place, but families worry constantly

1.2 The Solution

SafeCheck combines safety check-ins, health monitoring, cognitive tracking, and family dashboards into one seamless experience. Seniors complete a simple 60-second daily routine that provides families with rich, actionable health insights.

1.3 Key Differentiators

1. **All-in-One Platform:** Check-in + Health + Cognitive + Family Dashboard in one app
2. **Cognitive Early Warning:** Baseline assessment + trend tracking + AI-powered anomaly detection
3. **Rich Health Analytics:** Not just yes/no—tracks sleep, mood, pain, energy over time
4. **Family Intelligence Dashboard:** Trends, patterns, alerts, and shareable doctor reports
5. **Voice-First Design:** Complete daily routine entirely by voice for accessibility

2. Target Market & User Personas

2.1 Target Markets (Tier 1)

Country	65+ Population	Living Alone %	Smartphone Adoption
United States	56 million	27%	61%
United Kingdom	12 million	32%	55%
Canada	7 million	24%	58%
Australia	4.2 million	26%	63%

Total Addressable Market: ~21 million seniors living alone across Tier 1 markets

2.2 Primary User Personas

Persona 1: The Senior ("Margaret")

- **Age:** 72 years old
- **Situation:** Widowed, lives alone in her own home, children live 2+ hours away
- **Health:** Manages high blood pressure and mild arthritis, takes 4 medications daily
- **Tech Comfort:** Uses iPhone for calls, texts, and Facebook. Comfortable with simple apps
- **Fears:** Falling and no one knowing, losing independence, burdening her children
- **Wants:** To stay in her home as long as possible, peace of mind that help will come if needed

Persona 2: The Adult Child ("David")

- **Age:** 48 years old
- **Situation:** Lives 3 hours from his mother, works full-time, has teenage children
- **Current Behavior:** Calls mom every morning to check in, worries constantly when she doesn't answer
- **Pain Points:** No visibility into mom's daily health, can't tell if she's declining cognitively
- **Wants:** Peace of mind without being intrusive, early warning if something's wrong, easy setup for mom

Persona 3: The Tech-Savvy Senior ("Robert")

- **Age:** 68 years old
- **Situation:** Recently retired engineer, lives alone after divorce, very health-conscious
- **Health:** Good physical health but worries about cognitive decline (family history of dementia)
- **Tech Comfort:** Very comfortable with technology, uses multiple health apps and wearables
- **Wants:** Data-driven insights into his cognitive health, something that tracks trends over time

3. MVP Feature Set

The MVP is organized into four core modules that work together to provide comprehensive senior safety and wellness monitoring.

3.1 Module 1: Daily Check-In System

Purpose: Confirm the senior is safe and well each day with a simple, quick interaction.

Core Features

Feature	Description
One-Tap Check-In	Large, prominent green button on home screen. Single tap confirms "I'm OK." Visual and haptic feedback on success.
Flexible Scheduling	Choose check-in deadline (e.g., 10am). Option for 1-3 check-ins per day (morning, afternoon, evening). Can check in early any time after midnight.
Smart Reminders	Silent notification 3 hours before deadline. Push notification 1 hour before. Push + SMS 10 minutes before. Push + SMS + call 2 minutes after deadline.
Missed Check-In Protocol	If no response 15 minutes after deadline: Automatic SMS to all emergency contacts with last known location. Premium tier: Dispatcher calls senior, then contacts, then coordinates wellness check with EMS.
Vacation/Pause Mode	Temporarily disable check-ins for travel or hospital stays. Set return date. Family notified of pause status.
Voice Check-In	"Hey Siri, check me in" or "OK Google, I'm safe" completes check-in without touching phone. Critical for accessibility and mobility issues.

3.2 Module 2: Health & Wellness Tracking

Purpose: Capture daily health data beyond binary check-in to identify trends and concerns early.

Daily Health Questions (Quick Check)

After the check-in button, seniors answer 4-5 quick tap questions. Total time: 20-30 seconds.

Question	Response Options	Why It Matters
How did you sleep?	Great / OK / Poorly / Didn't sleep	Sleep disruption correlates with cognitive decline, depression, and health issues
How's your energy?	Great / Good / Low / Very tired	Sudden fatigue can indicate illness, medication issues, or depression
Any pain today?	None / Mild / Moderate / Severe + Body location tap	New or worsening pain patterns need attention
How's your mood?	Happy / Neutral / Down / Very sad (emoji-based)	Depression screening; sustained negative mood triggers family alert
Did you take your meds?	Yes / Not yet / Skipped	Medication adherence tracking; patterns visible to family

Additional Health Features

- **Custom Questions:** Family can add specific questions ("Did you check your blood sugar?" "Did you do your exercises?")

- **Voice Notes:** Senior can leave a quick voice message ("Doctor appointment went well") that family can listen to
- **Photo Journal:** Optional photo sharing (meals, activities) to stay connected
- **Wearable Integration:** Sync with Apple Watch, Fitbit for automatic sleep and activity data

3.3 Module 3: Cognitive Health Tracking

Purpose: Establish cognitive baseline, track performance over time, and detect potential decline early. This is a major differentiator—no competitor offers this.

How It Works

1. **Baseline Assessment (Week 1):** During first week, senior completes 5-minute cognitive assessment covering memory, processing speed, attention, and problem-solving. Establishes personal baseline.
2. **Daily Micro-Games (60 seconds):** After health questions, one quick brain game appears. Rotates through different cognitive domains. Fun, gamified, not clinical feeling.
3. **Performance Tracking:** App silently tracks response times, accuracy, and patterns. Compares to personal baseline, not population norms.
4. **Anomaly Detection:** AI identifies significant changes (slower response times, increased errors, pattern breaks) and alerts family to potential concerns.

Daily Micro-Games (MVP Set)

Game	Cognitive Domain	Description	Time
Memory Match	Short-term memory	Remember sequence of 4-6 items, recall after brief delay	45 seconds
Speed Tap	Processing speed	Tap matching colors/shapes as fast as possible	30 seconds
Word Builder	Language/verbal	Create words from scrambled letters	60 seconds
Pattern Complete	Problem-solving	Identify what comes next in visual sequence	45 seconds
Find the Odd One	Attention	Spot the different item in a grid of similar objects	30 seconds

What Gets Tracked

- **Response Time:** How long it takes to answer/complete tasks
- **Accuracy Rate:** Percentage of correct answers
- **Consistency:** Variation in performance day to day
- **Trend Direction:** Improving, stable, or declining over weeks/months
- **Domain-Specific Patterns:** Is memory declining while processing speed stays stable?

3.4 Module 4: Family Dashboard

Purpose: Provide family members with visibility, peace of mind, and actionable insights—without being intrusive.

Dashboard Features

Feature	Description
Today's Status	At-a-glance view: Check-in status, today's health responses, cognitive game result. Green/yellow/red status indicators.
7/30/90 Day Trends	Visual charts showing: Sleep quality trends, mood patterns, pain frequency, energy levels, medication adherence rate, cognitive performance trajectory.

Smart Alerts	Push notifications for: Missed check-in, 3+ days of poor sleep, sustained negative mood, significant cognitive change, medication non-adherence pattern.
Doctor Reports	Generate shareable PDF summarizing: 30/60/90 day health trends, cognitive assessment results, medication adherence, notable patterns. Designed for doctor review.
Multi-Family Access	Multiple family members can access dashboard. Configurable permissions (view only, receive alerts, manage settings). Great for siblings sharing caregiving.
Voice Notes Inbox	Listen to voice messages left by senior. Chronological feed with timestamps. Transcription option for quick reading.
Location (Optional)	Only shared if check-in is missed. Privacy-first approach. Senior controls whether to enable. Not constant tracking like Life360.

4. Complete User Journey

4.1 Senior's Daily Routine (Total: ~90 seconds)

Morning Check-In Flow

1. **Reminder Notification** (0 seconds)
   - Push notification: "Good morning! Tap to check in"
   - Tapping notification opens app directly to check-in screen
2. **One-Tap Check-In** (2 seconds)
   - Large green "I'm OK" button fills screen
   - Tap triggers satisfying animation + haptic feedback
   - Daily motivational quote appears briefly
3. **Quick Health Questions** (20-30 seconds)
   - 5 large-button questions appear one at a time
   - Emoji/color-coded responses for easy understanding
   - Skip option available (but discouraged)
4. **Daily Brain Game** (45-60 seconds)
   - One quick cognitive game appears
   - Game type rotates daily to cover all cognitive domains
   - Score shown with encouraging message
   - "Play more" option for those who want additional games
5. **Completion Screen** (5 seconds)
   - "You're all set! Have a great day."
   - Current streak displayed ("Day 45!")
   - Option to leave voice note for family

4.2 Family Member's Dashboard Experience

Daily Glance (10 seconds)

- Open app → See "Mom checked in at 8:42am"
- Quick summary: Sleep (Good), Energy (OK), Mood (Happy), Meds (Taken)
- Cognitive score: Green checkmark (within normal range)
- Any voice notes from today highlighted

Weekly Review (2 minutes)

- Swipe to Trends tab
- See 7-day charts for sleep, mood, energy, pain
- Cognitive performance graph with trend arrow
- Medication adherence percentage

Alert Scenario

1. Push notification: "Mom reported poor sleep for 3 consecutive days"
2. Tap to see details and historical pattern
3. Option to call mom directly from app
4. Option to generate doctor report for upcoming appointment

5. Pricing & Monetization Strategy

5.1 Pricing Tiers

Plan	Price	Features
Free	$0	1 daily check-in, SMS alerts to 2 contacts, basic health questions, 1 daily brain game, 7-day trend history
Plus	$7.99/mo or $79/yr	Up to 3 check-ins/day, unlimited family members, custom health questions, unlimited brain games, 90-day trends, cognitive baseline + tracking, doctor reports (PDF), voice notes
Premium	$14.99/mo or $149/yr	Everything in Plus + Human dispatcher calls if missed check-in + Wellness check coordination with EMS + 24/7 emergency button + Priority support
Family Plan	$24.99/mo or $249/yr	Premium features for up to 3 seniors (both parents + grandparent). Single dashboard view for all. Great for sandwich generation caregivers.

5.2 Revenue Projections (Year 1)

- **Conservative Scenario:** 10,000 users, 15% paid conversion = 1,500 paying users × $80/yr avg = $120,000 ARR
- **Moderate Scenario:** 25,000 users, 20% paid conversion = 5,000 paying users × $90/yr avg = $450,000 ARR
- **Optimistic Scenario:** 50,000 users, 25% paid conversion = 12,500 paying users × $100/yr avg = $1,250,000 ARR

5.3 Additional Revenue Streams (Post-MVP)

- **B2B Licensing:** White-label for senior living communities, home healthcare agencies, insurance wellness programs
- **Healthcare Partnerships:** Integration with Medicare Advantage plans, hospital discharge programs
- **Hardware Bundle:** Pre-configured tablet with app installed + simplified launcher for less tech-savvy seniors

6. Technical Architecture

6.1 Platform Strategy

- **MVP Phase:** React Native for cross-platform iOS and Android development
- **Priority:** iOS first (higher senior smartphone adoption in US), Android follow within 60 days
- **Web Dashboard:** React.js for family dashboard (also accessible as PWA on mobile)

6.2 Backend Infrastructure

Component	Technology
API Server	Node.js with Express or Python with FastAPI
Database	PostgreSQL (primary), Redis (caching, real-time)
Authentication	Firebase Auth or Auth0 (social login, phone verification)
Push Notifications	Firebase Cloud Messaging (FCM) + APNs
SMS/Voice Calls	Twilio (SMS alerts, voice reminders, dispatcher calls)
Cloud Hosting	AWS (EC2, RDS, S3, Lambda) or Google Cloud Platform
Analytics	Mixpanel or Amplitude (user behavior), custom ML pipeline for cognitive analysis

6.3 Data & Privacy Considerations

- **HIPAA Compliance:** Design for HIPAA from day one if health data is stored. Use BAA-covered cloud services.
- **Data Encryption:** AES-256 encryption at rest, TLS 1.3 in transit
- **Privacy Controls:** Senior controls what data is shared with family. Granular permissions.
- **Data Retention:** Clear policies on how long data is stored, easy data export/deletion
- **No Data Selling:** Commit to never selling user health data. Major trust differentiator.

7. Development Roadmap

7.1 Phase 1: Core MVP (Weeks 1-8)

Goal: Launch basic check-in app that competes with Snug Safety

- **Week 1-2:** Setup & Authentication
  - Project setup (React Native, backend, database)
  - User authentication (phone number verification)
  - Onboarding flow (senior vs family member)
- **Week 3-4:** Check-In Core
  - One-tap check-in button
  - Scheduling system (set check-in time)
  - Reminder notifications (push + SMS)
  - Missed check-in alerts to contacts
- **Week 5-6:** Health Questions
  - Daily health question flow (5 questions)
  - Data storage and basic visualization
  - Family linking (invite/accept flow)
- **Week 7-8:** Family Dashboard v1
  - Today's status view
  - 7-day trend charts
  - Push notifications for family
  - Beta testing with 50-100 users

7.2 Phase 2: Cognitive Module (Weeks 9-12)

Goal: Add major differentiator—cognitive tracking

- **Week 9-10:** Brain Games
  - Implement 5 core cognitive games
  - Game rotation logic
  - Score calculation and storage
- **Week 11-12:** Baseline & Tracking
  - Initial cognitive assessment (baseline)
  - Performance tracking over time
  - Cognitive trends in family dashboard
  - Alert logic for significant changes

7.3 Phase 3: Premium Features (Weeks 13-16)

Goal: Monetization and advanced features

- **Week 13-14:** Subscriptions & Premium
  - Payment integration (Stripe, App Store, Play Store)
  - Free vs paid feature gating
  - Extended trend history (90 days)
  - Doctor report PDF generation
- **Week 15-16:** Voice & Accessibility
  - Siri Shortcuts integration
  - Google Assistant integration
  - Voice note recording/playback
  - Accessibility audit and fixes

7.4 Phase 4: Scale & Optimize (Weeks 17-20)

Goal: Prepare for growth

- Android app launch (if started iOS-first)
- Dispatcher service for Premium tier
- Wearable integration (Apple Watch, Fitbit)
- Performance optimization
- Marketing site and App Store optimization

8. Competitive Positioning

8.1 Competitor Comparison Matrix

Feature	SafeCheck	Snug	Dooinwell	Iamfine	Life360
Daily Check-In	✓	✓	✓	✓	✗
Health Tracking	✓	✗	✗	✗	✗
Cognitive Games	✓	✗	✗	✗	✗
Cognitive Decline Detection	✓	✗	✗	✗	✗
Family Dashboard	✓	Basic	✓	Basic	✓
Trend Analytics	✓	✗	✗	✗	Limited
Doctor Reports	✓	✗	✗	✗	✗
Voice Check-In	✓	✗	✓	✗	✗
Android Support	✓	✓	✗	✓	✓
Free Tier	✓	✓	Trial Only	Trial Only	Limited

8.2 Key Messaging

- **Tagline:** "Peace of mind for families. Independence for seniors."
- **Value Prop:** "The only app that combines daily safety check-ins with cognitive health monitoring and family insights."
- **Differentiator:** "Know they're safe. Know they're healthy. Know early if something changes."

9. Success Metrics & KPIs

9.1 Launch Metrics (First 90 Days)

Metric	Target	Why It Matters
App Downloads	5,000+	Top of funnel health
Day 7 Retention	40%+	Habit formation indicator
Day 30 Retention	25%+	Long-term stickiness
Daily Check-In Rate	85%+ of active users	Core product engagement
Family Link Rate	60%+ seniors linked	Network effect indicator
Paid Conversion Rate	10%+ (free to paid)	Revenue health
App Store Rating	4.5+ stars	User satisfaction
NPS Score	50+	Word of mouth potential

9.2 North Star Metric

"Weekly Active Senior-Family Pairs" — The number of senior users who complete at least 5 check-ins per week AND have at least one linked family member who views the dashboard weekly. This measures both senior engagement AND family value delivery.

10. Immediate Next Steps

1. **Validate Core Assumptions:** Interview 20+ adult children with aging parents to confirm pain points and willingness to pay
2. **Design Sprint:** Create high-fidelity prototypes of senior check-in flow and family dashboard
3. **User Testing:** Test prototypes with 10 seniors and 10 adult children for usability feedback
4. **Technical Setup:** Set up development environment, CI/CD pipeline, and core infrastructure
5. **Begin Phase 1 Development:** Start building authentication and check-in core
6. **Marketing Foundation:** Create landing page, start building email waitlist, establish social presence
7. **Content Strategy:** Plan YouTube content that builds audience for eventual app promotion

— End of MVP Specification —