



2: Identifying At-Risk Beneficiaries with AI

Proactive support starts with early detection.

Why It Matters

Nonprofits serve people who face complex challenges. Whether you're helping students stay in school or providing access to healthcare, early signs of disengagement or risk are often buried in data. AI can help surface these signals — so you can intervene before it's too late.

Learning Objectives

You will learn how to:

- Define “risk” based on your mission.
 - Identify the right data to monitor.
 - Use classification models to flag risk.
 - Create ethical protocols for intervention.
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Step-by-Step: Predicting Who’s at Risk

1. Define the At-Risk Outcome

Start with a clear goal:

- A student dropping out

- A client missing appointments
- A family falling below safety thresholds

Choose a **binary outcome** (Yes/No) to train the model.

2. Collect Behavior and History Data

For each participant, gather:

- Demographics (age, region, language)
- Attendance or engagement logs
- Program milestones or intake assessments
- Notes from staff (if structured)

Caution: Respect privacy and consent. Use anonymized or de-identified data when possible.

3. Choose a Classification Model

AI models that predict Yes/No outcomes include:

- Logistic Regression
- Decision Trees
- Random Forests (great for complex cases)
- NLP classifiers for text-based risk flags

4. Train the Model

Feed the model past examples where outcomes are known.
It will learn patterns that correlate with risk.

Example in Action

A youth mentoring nonprofit wants to prevent program dropouts.

They analyze 2 years of engagement logs and identify “silent periods” longer than 3 weeks as a major flag.

The AI model helps staff identify disengaged students — and personalized re-engagement messages are sent in time.

Tips for Human-Centered AI

- AI highlights patterns — humans decide what to do.
 - Avoid using AI to judge people; use it to **support** them.
 - Create “safety nets” — alerts go to a counselor, not an automatic email.
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Sample Intervention Plan

Signal Detected	Human Action
Low attendance	Staff check-in call or text message
Missing milestone	Custom nudge message via app
Negative sentiment	Escalation to program director

Try This Activity

List 3 signs that someone in your program might be at risk.

Can you find those signs in your existing data?

What would you do if you could flag those people a week earlier?

What's Next?

- ✓ Explore tools like Microsoft AI Builder or Google AutoML to start testing.
 - ✓ Partner with a data volunteer or analyst to build your first risk model.
 - ✓ Continue to Lesson 3: *Measuring Program Impact with AI*.
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Organization: AI for Altruism

Website: www.ai4altruism.org

Contact: team@ai4altruism.org

This datasheet is part of A4A's growing AI Readiness Toolkit for nonprofits.