



# Pilot project related to the development of evidence based strategies to improve the health of isolated and vulnerable persons

Case Study Pilot 2: Danish model on food systems in correctional facilities

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# 1 Case study: Danish model on food systems in correctional facilities

**Name of practice:** Danish model on food systems in correctional facilities

**Country:** Denmark (DK)

## Main objective and specific aims

The model of catering in Danish prisons is one of self-catering. This is part of a broader prison strategy of 'normalising' prison conditions, to reduce the negative impacts of imprisonment on the prisoner and reduce re-offending once prisoners are released.

The specific aims of using the self-catering model are:

- 'Normalising' the preparation and consumption of meals, so that this aspect of prisoners' time in prison more closely matches life outside of prison.
- Helping prisoners acquire cooking skills that will enable them to eat more healthily.
- Helping cut re-offending, by teaching prisoners skills that will help them once they leave prison.

## Relevance for 3<sup>rd</sup> EU Health Programme objectives

This programme is relevant to objective one of the 3<sup>rd</sup> EU Health programme:

- Promote health, prevent diseases and foster supportive environments for **healthy lifestyles** taking into account the 'health in all policies' principle, in that it supports prisoners to make their lifestyles healthier.

## Target groups

The target group of this programme is prisoners. It is aimed at all prisoners within the Danish prison system, without a special focus on any particular sub-groups.

Self-cooking facilities are not generally available to prisoners being held in remand facilities<sup>1</sup>. Given Denmark has a total prison population of 3,481, 35.5% of whom are pre-trial/remand<sup>2</sup>, this means approximately 2,245 prisoners (64.5%) are serving sentences in prisons that use this model of self-cooking.

## Thematic focus of intervention in relation to reducing health inequalities

Through its focus on improving the food consumed by the prison population, this may help tackle health problems experienced by prisoners. Evidence of health outcomes for Danish prisoner specifically is not available, but there is global evidence that some aspects of prison diets present particular health risks for prisoners. A 2012 review of 60,000 prisoners worldwide<sup>3</sup> found that for prisoners in high-income countries:

- Overweight and obesity are a particular problem for female prisoners. One reason for this is that men make up the vast majority of the global prison population, and so prison systems tend to be designed with men's requirements in mind. This means that female prisoners are often given food containing too many calories.
- Prisoners of both sexes have diets containing too much salt and fat, compounded by the availability of extra (unhealthy) snacks that prisoners can purchase.

<sup>1</sup> Smoyer and Minke, 2015. *Food systems in correctional settings: A literature review and case study.*

<sup>2</sup> World Prison Brief, 2016. *Country profile: Denmark.*

<sup>3</sup> Herbert et al, 2012. *Prevalence of risk factors for non-communicable diseases in prison populations worldwide: a systematic review.*

## Key activities

There are no cafeterias or institutional kitchens in Danish prisons that hold sentence-serving prisoners. Instead, prisoners purchase ingredients from the prison grocery store, cook their own food and clean for themselves in communal kitchens. The main activities of the programme are as follows:

- Prisoners are given an allowance of EUR 67 per week for food and cleaning supplies.
- They also have to work, and are paid at least EUR 49 per week in wages.
- Prisoners can buy food from the prison grocery store. Most prison grocery stores are run by private companies and have to make a profit. They stock most regular grocery items.
- Prisoners are given a fridge in their cells in which to store the food they purchase.
- Each prisoner has access to a communal kitchen shared by around 20 prisoners, and meal preparation is supervised by prison staff.
- Keeping the kitchen clean is the responsibility of the prisoners who use it, with cleaning tasks allocated among the prisoners by prison staff to ensure the kitchen is maintained.
- Cookery training programmes are available in some prisons. By participating in these, prisoners can become certified chefs.

## Geographical scope

National: this initiative covers all prisons for sentence-serving prisoners in Denmark.

## Intersectoral dimension (policy areas that it cuts across)

This programme cuts across two policy areas: health and criminal justice. As well as addressing prisoner health, this initiative is run as part of a national strategy to reduce re-offending.

## Duration

The model of prisoners cooking for themselves was first trialled in Denmark in 1976<sup>4</sup>, before being expanded to all prisons during the 1970s and 1980s. The expansion of cooking lessons has only occurred in the past few years.

Self-catering is used as part of the Prisoner and Probation Service's principle of 'normalisation' of service delivery, and so is due to run indefinitely<sup>5</sup>.

## Lead organisation

The lead organisation is the Danish Prison and Probation Service, a department of the Ministry of Justice responsible for the national prison service. This is the government body that oversees all aspects of the prison and probationary services.

## Partners

Self-catering in prisons is delivered entirely by the Prison and Probation service, although the prison grocery stores are operated by private companies. Delivery of the cookery courses is done with the assistance of catering company Meyers Foods, who provide staff to teach prisoners.

## Main sources of funding

Funding for the programme comes from the Danish Prison and Probation Service, as part of the overall budget allocated for running Danish prisons. The exact level of funding required to run self-catering is not publicly available.

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<sup>4</sup> Smoyer and Minke, 2016.

<sup>5</sup> Prison and Probation Service, 2011.

## Evidence base for implementation

The primary rationale for Denmark's programme of self-cooking in prisons is the contribution it can make towards improving prisoner behaviour and cutting re-offending rates, by helping to 'normalise' conditions in prison so that they more closely reflect conditions outside of prison. At 29%, re-offending rates in Denmark are among the lowest in Europe<sup>6</sup>. While hard evidence linking a 'normalisation' approach to imprisonment and lower re-offending rates is not available, there is indicative evidence that Denmark's approach has a positive impact upon prisoners' self-perception, and thereby their behaviour inside and outside of prison<sup>7</sup>. There is also considerable evidence that re-offending can be reduced through the provision of education and skills training in prisons, which help inmates find employment upon release<sup>8</sup>.

While health effects are not the primary focus of the Danish approach to imprisonment, there is also evidence that dietary changes can have a significant positive impact on prisoners' physical and mental health, which Denmark's self-catering may indirectly facilitate by providing prisoners with fresher food than would usually be available through prison catering, and by educating them about cookery and healthy eating. Research from the United States and worldwide<sup>9</sup> has found that prisoners are more likely to be overweight than the general population, with prison diets high in processed foods, carbohydrates, fat and salt partly responsible<sup>10</sup>. Providing inmates with raw ingredients with which to make fresher food would help address this, and prisoner participation in cooking courses (a relatively new, but growing aspect of Denmark's model) can help improve prisoners' knowledge of nutrition and capacity to prepare healthier meals<sup>11</sup>.

There is also some indicative evidence that improved diets might be beneficial for patients' mental health. Improved nutritional intake has been associated with reduced incidents of poor behaviour and violence in young incarcerated men<sup>12</sup>, as well as improved outcomes relating to aggression and psychopathology<sup>13</sup>.

## Evaluation: Has the practice been evaluated?

There are various reports on the self-catering model used in Danish prisons, as well as some qualitative outcomes assessments conducted by academics<sup>14</sup>. Given that the primary goal of self-catering and cookery lessons is to help reduce prisoner re-offending, this is the area that reports on the Danish model tend to focus on, although qualitative evaluations have found preliminary evidence that self-catering and the provision of cookery lessons have a positive impact upon prisoners' ability to eat healthily and reduced likelihood of re-offending upon leaving prison.

## Effectiveness: evidence of outputs, outcomes, results and cost-effectiveness

### Outputs and outcomes

All sentenced prisoners in Denmark have self-catering facilities in their accommodation. The exact number of prisoners using prison facilities who self-cater varies year on year, as it depends on the

<sup>6</sup> Higher than only Iceland and Norway (Fazel and Wolf, 2015).

<sup>7</sup> Minke, 2014.

<sup>8</sup> HM Government, 2005; Social Exclusion Unit, 2002.

<sup>9</sup> WHO, 2014.

<sup>10</sup> Binswanger et al, 2009. *Prevalence of chronic medical conditions among jail and prison inmates in the USA compared with the general population.*

<sup>11</sup> Nikolas, 2000.

<sup>12</sup> Eves and Gesch, 2003. *Food provision and the nutritional implications of food choices made by young adult males, in a young offenders' institution.*

<sup>13</sup> Zaalberg et al, 2010. *Effects of nutritional supplements on aggression, rule-breaking, & psychopathology among young adult prisoners.*

<sup>14</sup> Minke, 2014. *Cooking in prison – from crook to cook*; Minke and Balvig, 2015. *The Cookery School – evaluation of the experiences so far*; Smoyer and Minke, 2015. *Food systems in correctional settings: A literature review and case study.*

number of prisoners incarcerated in any given year. It will generally be between 2,000 and 2,600 prisoners<sup>15</sup>. The number of prisoners participating in cookery or catering courses is not documented.

The system of self-catering and prisons' provision of cookery lessons have both been well-received by inmates<sup>16</sup>, with prisoners who self-cook expressing much higher levels of satisfaction with the quality of their food than remand prisoners who have food cooked for them<sup>17</sup>. Prisoners appreciate the control they feel by being given control of their own diet.

Evaluations of cookery lesson programmes in Danish prisons have found these programmes to have:

- Helped some prisoners to find employment both inside and outside prison;
- Improved prisoner-staff relationships, through prisoners preparing meals for staff;
- Taught prisoners how to prepare health and inexpensive meals; and
- Helped spread knowledge of healthy eating to other prisoners, as programme participants pass on this knowledge to their peers<sup>18</sup>.

While the full impact of this is yet to be evaluated, these findings do give some indication that access to healthier ingredients, as well as knowledge of how to prepare healthy food, have created the potential for Danish prisoners to improve their diets. This would likely have helped them improve their health as well. These evaluations highlight that these cookery courses' relatively recent introduction means it is currently still too early to assess their impact on re-offending rates.

### Success factors

Qualitative evaluations of Denmark's system of self-catering have found that the main benefit of having prisoners cook for themselves is the freedom for prisoners to prepare their own food using healthy ingredients from prison grocery stores, as this enables prisoners to eat more healthily than centralised prison catering would allow.

Evidence on success factors for prison cookery classes is limited. Minke and Balvig's evaluation of a pilot cookery school project found that prisoners' successful completion of their courses was aided by using:

- A small number of teachers, to ensure continuity and cohesion of course delivery and the staff that prisoners come into contact with;
- Staff who are comfortable and competent teaching in the unusual teaching environment; and
- A teaching space detached from regular prison activity, as this can improve prisoners' motivation for learning<sup>19</sup>.

Their evaluation did not specifically examine the impact of the cookery courses on prisoners' diets or health, and they highlighted that it was conducted too early to be able to assess the impact of the course on participants' likelihood of re-offending.

### Innovative features

A similar 'normalisation' approach is used at some prisons in Norway, including prisoner self-catering<sup>20</sup>, although this is not a uniform approach. Self-catering has also been used at a small number of prisons in the UK, although as a reward for good behaviour rather than a universal system for all prisoners<sup>21</sup>. The provision of self-catering facilities for all prisoners is therefore in itself a highly innovative approach.

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<sup>15</sup> Depending on the population of sentence-serving prisoners each year. Estimates above based on 2006-2015 total prison populations, and percentage of prisoners serving sentences in 2015 (WPB, 2016).

<sup>16</sup> Minke, 2014; Minke and Balvig, 2015.

<sup>17</sup> Smoyer and Minke, 2015.

<sup>18</sup> Minke and Balvig, 2015.

<sup>19</sup> Ibid.

<sup>20</sup> Stranberg, 2010. *The Norway Prison System*.

<sup>21</sup> HM Chief Inspector of Prisons, 2011. *Report on an unannounced full follow-up inspection of HMP Full Sutton*.

Other complementary elements of the scheme – such as prison food stores – are more commonly found in other countries, although the literature notes that grocery stores in Danish prisons offer a much wider range of foodstuffs than in most other countries.

### Obstacles and lessons learnt

Minke and Balvig's evaluation of one prisoner cookery school project found that it had a dropout rate of 57%, with half of those who dropped out doing so due to either being released or to being transferred to another prison. The movement of prisoners within the prison system therefore presents a challenge to having prisoners successfully complete the cookery courses offered through this programme. The evaluation did not identify any means of addressing this issue, although some possible options would include: only allowing prisoners to enrol if they have enough time left on their sentence to complete it; and expanding the coverage of the programme to enable those transferring to continue their course at the location they are transferred to.

Another quarter of those who left the cookery project early were expelled for poor behaviour and/or lack of motivation. The evaluation also does not give an indication of measures that could be taken to reduce this or means of identifying potential problem students, although it is possible that some form of screening for prisoners who sign up for cookery projects would help reduce the rate of poor behaviour/motivation expulsions.

Some research has advised that prison staff should monitor the way in which prisoners' social organisation develops around their food practices. If food is used to construct group identities (delineating prisoners by cultural, religious or regional differences) then this could impact negatively upon prisoners' social networks<sup>22</sup>. However, current evidence does not demonstrate this being a particular problem in self-catering prison facilities, nor does it show whether such developments could have a detrimental impact on prisoner diet, health or chances of re-offending.

### Potential for transferability and sustainability

Whether or not this approach could be transferred to other countries' prison systems would primarily depend upon two factors: political support for such an initiative, and the availability of the resources needed to provide cooking facilities and staff supervision:

- **Funding:** Denmark currently spends EUR 188 per day on each prison inmate. This is higher than the European average<sup>23</sup>. While it appears that self-catering is a cost-effective method of feeding prisoners<sup>24</sup>, detailed information on the cost of self-catering in prisons is not readily available and so it is difficult to fully assess the financial viability of self-catering for judicial systems with lower budgets.
- **Staff levels:** Denmark has a staff to prisoner ratio of 1.5 prisoners per custodian<sup>25</sup>. This puts it among the highest in Europe, with a European average of 3.6 prisoners per custodian. As with funding, there is little information available on the level of staff needed to supervise self-catering compared to a canteen system, but countries with lower levels of prison staff could potentially lack the staff to deliver self-catering.
- **Political Support:** Current evidence shows that Denmark's programme of self-catering for prisoners has broad support from both the public and from prisoners themselves<sup>26</sup>. For this programme to be adopted in other countries, it would need similar levels of support in those as well.
- **Regulatory environment.** Rollout of such a scheme across a national prison system would depend upon legislation allowing a central government to enact such reforms. For example, ongoing reforms to the UK's prison system will allow some prisons autonomy over much of their

<sup>22</sup> Wilson, 2011; Earle and Phillips, 2012; Ugelvik, 2011; Smoyer, 2014; Vanhouche, 2014; Cate, 2008.

<sup>23</sup> Including non-EU European countries.

<sup>24</sup> Justice Committee, 2015. *Prisons: Planning and Policies – Ninth Report of Session 2014-2015*.

<sup>25</sup> All statistics from Council of Europe, 2015.

<sup>26</sup> Smoyer & Minke, 2015.

financial and operational decision-making<sup>27</sup>. In countries or localities where such a system is used, prisons might need to be persuaded to voluntarily adopt a self-catering model and could potentially resist.

Use of a similar model in other countries is limited. A similar 'normalisation' approach is in operation at some prisons in Norway<sup>28</sup>, and self-catering has also been used at a small number of prisons in the UK<sup>29</sup>, although no evidence of the impact of these programmes on prisoner's health or rehabilitation could be identified in the literature.

This programme is fully sustainable. Funding is guaranteed as part of the national budget for prison operations.

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<sup>27</sup> HM Government, 2016.

<sup>28</sup> Stranberg, 2010. *The Norway Prison System*.

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